SC-Database
Software version = 5.81 Data version = 4.62
Experiment list contains 4999 experiments for
 (no ligands specified)
 Metal : Zn++
 (no references specified)
 (no experimental details specified)

****

e- HL Electron (442)
Electron;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	EMF	non-aq	25°C	100%	C	IH	1980APa (35)		1
							E0(Zn(s)/Zn++)=-1806 mV		
Medium: DMSO, 1 M NH4ClO4. E0 referred to E0(aq)=0 for the Ag(s)/Ag+ elect.									
Zn++	oth	none	25°C	0.0	U		1972COa (36)		2
							K(Zn+2e=Zn(s))=-24.65(-0.729V)		
Method:Estimated data									
Zn++	oth	alc/w	25°C	100%	U	I	1972COa (37)		3
							K(Zn+2e=Zn(s))=-33.88(-1.002V)		
Method:Estimated data. MeOH. K=-30.22(-0.894V,EtOH), -30.22(-0.894V,BuOH), -28.03(-0.829V,PentOH), -26.54(-0.785V,acetone), -33.88(MeCN), -41.96(HCOOH)									
Zn++	EMF	oth/un	500°C	100%	U	T	1972GRb (38)		4
							K(Zn + Zn(l)=2Zn+)=-3.65		
Medium: ZnBr2; K=-3.63(550 C), -3.32(600 C)									
Zn++	EMF	none	25°C	0.00	U		1971BWa (39)		5
							K=-40.74(-1.205V)		
K: Zn(OH)4-- + 2e=Zn(s) + 4OH-									
Zn++	oth	none	25°C	0.0	U		1970NMa (40)		6
							K(Zn+e=Zn(I))=34(2.0V)		
							K(Zn(I)+e=Zn(s))=-8.5(-500 mV)		
Method:Estimated data									
Zn++	oth	none	25°C	0.0	M		1968LCd (41)		7
							K(Zn+2e=Zn(s))=-25.83, -764 mV		
Zn++	sol	non-aq	702°C	100%	U	T	1966BSb (42)		8
							K(Zn(a)+Zn=2Zn+)=-4.4		
							K'(Zn(a)+Zn=Zn2++)=-2		
Medium: liquid ZnCl2. At 777 C: K=-4.15, K'=-1.7									
Zn++	EMF	none	25°C	0.00	U		1954DIa (43)		9
							K=-40.94(-1.211V)		

K: Zn(OH)4-- + 2e=Zn(s) + 4OH-

Zn++ EMF non-aq 25°C 100% U T 1954PSa (44) 10
K=-25.59(-757mV) M units
Medium: formamide; K(Zn + 2e=Zn(s))=-26.28(-759mV,18 C) M units

****

AsO4--- H3L Arsenate CAS 7778-39-4 (1557)
Arsenate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	oth	oth/un	25°C	0.0	U		*K(Zn3L2(s)+2H=3Zn+2HL)=-8.20	1990SAa (1116)	11

Calculated from thermodynamic data.

Zn++	sol	oth/un	20°C	dil	U		Kso(Zn3L2)=-26.97	1959CHc (1117)	12

****

AsW11O39------- H7L (2468)
alpha-Heteromonoarseno-polytungstate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	1.00M	U		K1=3.95	1984COa (1171)	13

****

As2W17H2O61-------- H8L (2469)
alpha-Heteropolydiarseno-polytungstate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	1.00M	U		K1=7.21	1984COa (1182)	14
							K1=5.17 (alpha2 isomer)		

****

BO4H4- HL Borate CAS 10043-35-3 (991)
Borate; B(OH)4-

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	oth	KNO3	25°C	0.70M	C		K1=0.9 B2=3.32	1984BEa (1284)	15

Method: Differential pulse anodic stripping voltammetric (DPASV)

Zn++	sol	none	22°C	0.0	U		Kso(Zn(BO2)2(H2O)=-10.18	1959SHb (1285)	16
							B4=11.8 ?		

****

Br- HL Bromide CAS 10035-10-6 (19)
Bromide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

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```
Zn++       EMF non-aq 25°C 100%  C   HM                 2001KTa  (1426)  17
                                       B(Zn(phen)Br2)=12.6
                                       B(Zn(phen)2Br2)=15.9
Medium: DMF, 0.40 M Et4NClO4. Method: Zn/Hg electrode. By calorimetry,
DH(Zn(phen)Br2)=9 kJ mol-1, DH(Zn(phen)2Br2)=-51
-------------------------------------------------------------------------------
Zn++       dis NaNO3  25°C  1.0M C  I     K1=0.7         2000TAa  (1427)  18
for 1.5 M NaNO3 K1=1.10; for 2.0 M K1=1.32; for 3.0 M K1=2.90
for 1 M KNO3 K1=0.84; for 1.5 M K1=1.42; for 2.0 M K1=2.09
-------------------------------------------------------------------------------
Zn++       cal non-aq 25°C 100%  C   H    K1=6.2    B2=11.70  1994SKa  (1428)  19
                                       B3=15.0
Medium: Dimethylacetamide. DH(K1)=9.0 kJ mol-1, DH(K2)=-1.0, DH(K3)=-7.8
-------------------------------------------------------------------------------
Zn++       cal non-aq 25°C 100%  U   H    K1=6.65   B2=10.52  1991AIa  (1429)  20
hexamethylphosphoric triamide solvent with 0.1 M (C4H9)4NClO4
DH andDS values also
-------------------------------------------------------------------------------
Zn++       cal non-aq 25°C 100%  U   HM   K1=2.9    B2=8.48   1990IMa  (1430)  21
                                       B3=11.98
                                       B(Zn(bpy)L)=7.6
                                       B(Zn(bpy)2L)=10.19
                                       B(Zn(bpy)L2)=11.17
In DMF, 0.16 M Et4NClO4.  DH(K1)=38, DH(B2)=37.2, DH(B3)=31.5, DH(Zn(bpy)L)=
0.6, DH(Zn(bpy)2L)=-25, DH(Zn(bpy)L2)=15.7 kJ mol-1.
-------------------------------------------------------------------------------
Zn++       ISE mixed  25°C 0.10M C   H    K1=5.67   B2=12.37  1990PDa  (1431)  22
                                       K3=4.55
                                       K4=2.89
Medium: MeCN, 0.1 M (PyH)CF3SO3; DH(K1)=0.9, DH(K2)=-9.3,
DH(K3)=-20.8, DH(K4)=-4.5 kJ mol-1
-------------------------------------------------------------------------------
Zn++       ISE non-aq 25°C 100%  C   H    K1=3.82   B2=5.65   1990PDa  (1432)  23
Medium: Pyridine, 0.1 M (PyH)CF3SO3; DH(K1)=0.3,DH(K2)=-8.4kJmol-1
-------------------------------------------------------------------------------
Zn++       oth non-aq 25°C 100%  U        K1=1.6    B2=4.80   1989HOa  (1433)  24
                                       K3=2.2
                                       K4=-0.6
by Raman spectroscopy in DMSO
-------------------------------------------------------------------------------
Zn++       EMF NaClO4 25°C 5.00M U        B2=-0.5        1988FSa  (1434)  25
                                       B4=-0.64
molal equilibrium constants: B2=-0.68; B4=-1.00
-------------------------------------------------------------------------------
Zn++       cal non-aq 30°C 100%  U   H                   1988GKa  (1435)  26
                                       K3>6
                                       K4=2.65
Medium: CH3CN. DH(K3)=-20.5, DH(K4)=-15.3 kJ mol-1; DS(K4)=0 J K-1 mol-1
-------------------------------------------------------------------------------
Zn++       ix  mixed  25°C  90%  C  I     K1=4.98   B2=8.81   1986KUb  (1436)  27
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```
                                        B3=11.55
Medium: 90% acetone/H2O. In 80% acetone/H2O, K1=3.77, B2=5.97, B3=7.61.
In 70% acetone/H2O, K1=2.33, B2=4.07
-------------------------------------------------------------------------------
Zn++       EMF non-aq 25°C 100%  U  I     K1=1.7    B2=4.27   1985GSa  (1437)  28
                                        B3=5.8
Medium: DMSO. In DMF; K1=2, B2=7.1, B3=8.8. Data also in DMSO/H2O & DMF/H2O
mixtures. Medium: 0.5 M NH4ClO4
-------------------------------------------------------------------------------
Zn++       ix  non-aq 25°C 100%  U  I     K1=2.60   B2=3.91   1984KUa  (1438)  29
Medium: ethylene glycol. K1=2.30, B2=3.32 in 5% weight aq.ethylene glycol.
K1=1.87, B2=2.78 in 10% weight aqueous ethylene glycol
-------------------------------------------------------------------------------
Zn++       ISE alc/w  25°C 100%  U        K1=3.35   B2=7.52   1983DSa  (1439)  30
-------------------------------------------------------------------------------
Zn++       ISE non-aq 25°C 100%  U        K1=3.60        1982SSd  (1440)  31
Medium: dimethylacetamide
-------------------------------------------------------------------------------
Zn++       oth non-aq 25°C 100%  C   H    K1=1.86   B2=5.17   1981ABc  (1441)  32
                                        B3=7.16
Medium: DMSO, 0.1 M NH4ClO4. Mean values from potentiometry (amalgam) and
calorimetry. DH(B1)=22.3; DH(B2)=42.2; DH(B3)=36.3 kJ mol-1
-------------------------------------------------------------------------------
Zn++       cal non-aq 25°C 100%  C   H    K1=1.56   B2=4.66   1981APc  (1442)  33
                                        B3=6.72
Medium: DMSO, 0.1 M NH4ClO4. DH(K1)=23.7; DH(B2)=43.1; DH(B3)=36.3 kJ mol-1
-------------------------------------------------------------------------------
Zn++       ISE NaClO4 25°C  3.0M U  I     K1=-0.55       1979FKd  (1443)  34
-------------------------------------------------------------------------------
Zn++       ISE non-aq 25°C 100%  U        K1=2.78   B2=6.78   1979LTb  (1444)  35
                                        B3=9.95
                                        B4=10.30
                                        B5=11.18
                                        B6=11.11
Medium: DMF. Method: Zn-electrode
-------------------------------------------------------------------------------
Zn++       ISE NaClO4 25°C 3.00M U  I M   K1=-0.55  B2=-0.22  1978FKa  (1445)  36
                                        B3=-1.16
                                        B(ZnClBr2)=-0.72
                                        B(ZnCl3Br)=0.32
                                        B(ZnCl2Br2)=-0.66
-------------------------------------------------------------------------------
Zn++       EMF oth/un 25°C 1.50M U  I     K1=-1.05       1978LKd  (1446)  37
K1 defined in molality (Moles per kg) terms: K1=m(ZnBr)/m(Zn).m(Br),  ionic
strength in m(Zn(ClO4)2). K1 (m): -1.05 (2.0), -0.8 (2.5), -0.7 (3.0)
-------------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U    M                 1978NVa  (1447)  38
                                        K(ZnA+L)=1.2
A=Tetraphenylporphyrin. Medium: CH2Cl2, 0.0124 Bu4N.BF4
-------------------------------------------------------------------------------
```

```
Zn++       ISE non-aq 25°C 100%  C   H    K1=0.85   B2=3.74   1976ABc  (1448)  39
                                          K3=1.34
Medium: Dimethylsulfoxide, 1.0 M NH4ClO4; DH(K1)=27.8, DH(K2)=9.1,
DH(K3)=-4.2 kJ mol-1
-------------------------------------------------------------------------------
Zn++       ISE non-aq 25°C 100%  C        K1=0.85   B2= 3.74  1976ABg  (1449)  40
                                          K3=1.34
Medium:1 M NH4ClO4 in DMSO
Zn(Hg)-electrode
-------------------------------------------------------------------------------
Zn++       ISE NaClO4 25°C 4.00M U  I M   K1=0.06        1975FCa  (1450)  41
                                          B3=0.28
                                          B4=-0.75
                                          B(ZnBr(SO4))=-0.10
                                          B(ZnBr(SO4)2)=0.50
B(ZnBr2(SO4))=1.18, B(ZnBr3(SO4))=-0.22, B(ZnBr2(SO4)2)=0.70, B(ZnBr(SO4)3)=
1.00. Data also for I=1,2 and 3 and Cd/Zn polynuclear complexes
-------------------------------------------------------------------------------
Zn++       ix  NaClO4 20°C 0.69M U        K1=0.22   B2=-0.10  1974MId  (1451)  42
                                          B3=-0.60
                                          B4=-1.21
Medium: HClO4
-------------------------------------------------------------------------------
Zn++       EMF R4N.X  55°C    ?  U T      K1=1.36        1974NGb  (1452)  43
Medium: NH4NO3(H2O)2. K1=1.38(70 C), 1.41(85 C) x units
-------------------------------------------------------------------------------
Zn++       dis R4N.X  55°C    ?  U T      K1=0.43   B2=0.91   1974NGc  (1453)  44
Medium: NH4NO3(H2O)2. K1=0.45,K2=0.48(70 C); K1=0.48,K2=0.54(85 C) m units
-------------------------------------------------------------------------------
Zn++       kin NaClO4 25°C  1.0M U        K1=-0.32       1973HHb  (1454)  45
-------------------------------------------------------------------------------
Zn++       ISE non-aq 25°C 100%  U        K1=3.30   B2=3.84   1973SLd  (1455)  46
                                          B3=5.08
Medium: DMSO. Zn amalgam electrode. By least squares:K1=3.41,B2=3.79,B3=5.23
-------------------------------------------------------------------------------
Zn++       dis NaClO4 25°C  1.0M U        K1=-0.5        1972MSc  (1456)  47
-------------------------------------------------------------------------------
Zn++       ISE non-aq   ?  100%  U        K1=4.0    B2=7.0    1971KTj  (1457)  48
                                          B3=10.4
                                          B4=11.1
Medium: DMF, 2 M LiClO4. Zn amalgam electrode
-------------------------------------------------------------------------------
Zn++       dis NaClO4   ?   1.0M U        K1=-1.46  B2=-0.99  1970LEa  (1458)  49
                                          K3=-2.24
-------------------------------------------------------------------------------
Zn++       oth oth/un 20°C  var  U   H    K1=-1.9   B2=-0.50  1970MPa  (1459)  50
                                          K3=-0.2
                                          K4=-0.3
Method: Raman. DH(K1)=21.3 kJ mol-1, DH(K2)=-13.0, DH(K3)=-3.3,
DH(K4)=-1.3; DS(K1)=36.4 J K-1 m0l-1, DS(K2)=-16, DS(K3)=-14.6, DS(K4)=-10.5
```

Zn++ cal NaClO4 25°C 3.0M U H 1969GEa (1460) 51
DH(K1)=1.46 kJ mol-1, DH(K2)=41.8, DH(K3)=(-8); DS(K1)=-5.9 J K-1 mol-1,
DS(K2)=125, DS(K3)=(-17)

Zn++ dis NaClO4 25°C 1.0M U T H K1=0.10 B2=-0.12 1969MAa (1461) 52
Medium: HClO4. DH(K1)=24.7 kJ mol-1, DS=83.7 J K-1 mol-1, DH(B2)=23.0,
K1=-0.05, B2=-0.19(10 C); K1=0.41, B2=0.47(40 C)

Zn++ ISE NaClO4 25°C 4.0M U I M K1=0.06 B2=-0.82 1965MRc (1462) 53
B3=0.28
B4=-0.74
Method:amalgam electrode. Medium: LiClO4. In 4 M LiBr: K(Na+ZnL4)=-0.34,
0.09(K),0.17(Rb),0.39(Cs),0.15(NH4). K(Na+ZnL3)=-1.0,-0.5(K) etc.also others

---

Zn++ oth NaClO4 25°C 3.0M U I M K1=-0.19 B2=-1.15 1965MRc (1463) 54
B3=-0.55
B4=-1.5
Method:amalgam electrode. Medium: LiClO4. In 3M LiBr: K(Na+ZnL4)=-0.41,
0.15(K),0.20(Rb),0.21(Cs),0.08(NH4). K(Na+ZnL3)=-0.85,-0.54(K) etc.

Zn++ oth non-aq 100% U 1963BCa (1464) 55
K3=5.5
K4=3
Method:from dielectric constants,"Job's method". Medium:Et2O

Zn++ dis oth/un 20°C var U M 1962MSc (1465) 56
Medium: HBr. K(H+ZnBr3+3T(org)=HZnBr3T3(org))=1.08; T=TBP, org=C6H6.
K(2H+ZnBr4+2T(org)=H2ZnBr4T2(org)=1.0. K(ZnBr2+2T(org)=ZnBr2T2(org)=0.23.

Zn++ ix NaClO4 20°C 0.69M U K1=0.22 B2=-0.10 1961SMc (1466) 57
K3=-0.64
K4=-0.26
B4=-1
Method: cation exchange; medium: HClO4

Zn++ oth oth/un 25°C var U K1=-0.5 B2=-0.5 1961YPa (1467) 58
K3.K4=-0.7
Method: Raman spectra.

Zn++ ix oth/un 25°C var U K1=0 B2=-0.15 1957HHa (1468) 59
K3=-0.30
K4=-0.52
Method: anion exchange; medium HBr.

Zn++ EMF oth/un 25°C 4.50M U H K1=-0.60 B2=-0.97 1956SLa (1469) 60
K3=-0.73
K4=0.44
Method:Zn/Hg electrode. DH(K1)=0, DH(K2)=0, DH(K3)=110, DH(K4)=-110 kJ mol-1
DS(K1)=-11.5, DS(K2)=-7.1, DS(K3)=357, DS(K4)=-362? J K-1 mol-1

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--------------------------------------------------------------------------------
Zn++       EMF NaClO4 25°C  3.0M U        K1=-0.60       1944SLa  (1470)  61
Method: Zn/Hg electrode. B2>-1.0 or B3>-1.0
--------------------------------------------------------------------------------
Zn++       EMF oth/un 20°C  var  U        K1=1.7         1936FRa  (1471)  62
Method: Zn/Hg electrode. K1=1.2 to 2.3
********************************************************************************
BrO3-                  HL    Bromate            (6017)
Bromate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       kin non-aq 230°C 100%  U T      K1=1.1         1961DLa  (2394)  63
Medium: liquid (K,Na)NO3. K1=0.1(250 C), m units
********************************************************************************
CN-                    HL    Cyanide          CAS 74-90-8  (230)
Cyanide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       vlt NaClO4 25°C 0.50M U        K1=5.36        2000LTa  (2502)  64
Voltammetry using Hg/CN- electrode.
--------------------------------------------------------------------------------
Zn++       cal NaCl   25°C  1.0M C  IH                   1996SMc  (2503)  65
DH(B4)=-118.2 kJ mol-1, DS(B4)=-40.3 J mol-1 K-1.
In 1.0 M NaClO4, DH(B4)=-116.2 kJ mol-1, DS(B4)=-6.7 J mol-1 K-1.
--------------------------------------------------------------------------------
Zn++       gl  NaCl   25°C  3.0M C        K1=4.98   B2=10.19  1990VHb  (2504)  66
                                        B3=14.54
                                        B4=18.62
                                        B(ZnH-1L3)=4.08
                                        B(ZnH-2L2)=0.71
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M C    M   B2=10.8        1988MMb  (2505)  67
                                        B3=16.12
                                        B4=20.41
                                        B5=22.9
                                        B(ZnL3(OH))=20.4
--------------------------------------------------------------------------------
Zn++       ISE oth/un 25°C  3.0M C TI   R K1=5.3    B2=11.02  1987BEa  (2506)  68
                                        B3=16.68
                                        B4=21.57
IUPAC evaluation (H Persson, Acta Chem.Scand,25,543)
--------------------------------------------------------------------------------
Zn++       ISE KNO3   25°C 0.10M C        K1=5.64   B2=11.04  1985YWa  (2507)  69
                                        B3=11.38
                                        B4=21.42
--------------------------------------------------------------------------------
Zn++       gl  R4N.X  23°C  2.0M U    M                  1974KBc  (2508)  70
                                        K(ZnA4+L=ZnA3L+A)=3.05
```

K(ZnA3L+2L=ZnA2L2+A)=2.49
K(ZnA2L2+L=ZnAL3+A)=3.31
K(ZnAL3+L=ZnL4+A)=1.9

Medium: NH4NO3. A=NH3

Zn++ EMF oth/un 25°C 0.50M U K1=4.94 B2=9.7 1972CDa (2509) 71
B3=14.7
B4=18.44

Method: emf with amalgam electrode. Medium: K2SO4

Zn++ gl oth/un 10°C 0.0 U T H B2=11.47 1971IJa (2510) 72
K3=5.17
K4=3.79

40 C: B2=10.70, K3=4.50, K4=3.10. DH(B2)=-43.9 kJ mol-1, DH(K3)=-38.9, DH(K4)=-33.1. At 10 C, DH values are -43.8, -39.7, -31.0

Zn++ EMF NaClO4 25°C 3.0M U K1=5.3 B2=11.0 1971PEc (2511) 73
B3=16.7
B4=21.6
Kso=-15.5

Method: emf with amalgam electrode

Zn++ gl KNO3 25°C 0.10M U B2=10.64 1969MBa (2512) 74
B3=15.74
B4=19.98

Zn++ gl KNO3 25°C 0.10M U M K1=5.27 B2=10.22 1969MBa (2513) 75
K(Zn(His)+3CN)=13.77

Zn++ vlt non-aq 195°C 100% U B2=5.1 1967ETa (2514) 76
B3=6.6(6.1?)
B4=8.65

Medium: molten KSCN

Zn++ gl oth/un 25°C 0.0 U B2=11.07 1965ICa (2515) 77
K3=4.98
K4=3.57
B4=19.62

Zn++ cal oth/un 25°C 0.0 U H 1965ICa (2516) 78

DH(B2)=-45.1, DH(K3)=-35.1, DH(K4)=-35.9 kJ mol-1

Zn++ cal oth/un 25°C var U H 1964GHc (2517) 79

DH(B4)=-115.8 kJ mol-1

Zn++ EMF oth/un ? dil U 1961PJa (2518) 80
K4=5

Zn++ oth oth/un ? var U 1960SMa (2519) 81
B4/B(Zn(OH)4)=-1 ?

K5.K6=1.5 ?
Method: chemical analysis

Zn++ ISE none 25°C 0.0 U 1959BGb (2520) 82
B4=16.72

Zn++ ISE none 25°C 0.0 U 1953SUb (2521) 83
B4=16.76

Zn++ ISE oth/un 18°C var U 1951STa (2522) 84
B4=12.60(?)

Zn++ cal oth/un ?? ? U H 1951YAa (2523) 85
DH(B4)=-100.0 kJ mol-1

Zn++ ISE oth/un 18°C var U 1941BJa (2524) 86
K4=ca.2.7

Zn++ ISE oth/un 12°C var U 1932BDa (2525) 87
B4=18.5 to 20

Zn++ ISE oth/un 18°C var U 1931MAa (2526) 88
B3=20.25 or B4=17.3

Zn++ vlt oth/un rt var U 1929PIa (2527) 89
B4=16.0
B5=20.17
Kso(ZnL2)=-12.59

Zn++ ISE oth/un 18°C var U 1904KUa (2528) 90
B3=17.52

Zn++ ISE oth/un 21°C var U 1903EUa (2529) 91
B4=16.9
****
CO L Carbon monoxide CAS 630-08-0 (551)
Carbon monoxide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ EMF NaClO4 20°C 1.0M U 1971GKc (2782) 92
K(Zn+Fe(CO)4)=8.60
K(Zn+HFe(CO)4)=1.3
K(Zn+ZnFe(CO)4)=1.5
K(2ZnFe(CO)4+2H2O=(HOZnFe(CO)4)2+2H)=-15.7
****
CO3-- H2L Carbonate CAS 465-79-6 (268)
Carbonate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl NaClO4 25°C 0.0 C TI 2000PKa (2986) 93
Kso(ZnCO3(s)+2H=Zn+CO2+H2O)=7.25. Solid is smithsonite.
Value derived from data for 1.0-3.0 m NaClO4. Also data at 15-50 C.

Zn++ vlt oth/un ? var C 1995VPa (2987) 94
K1eff=2.90
B2eff=4.03
pH=7.9 of Pisuerga river water. Ionic strength ranged from 0.01 M to 0.75M.
Method: Anodic Stripping Voltammetry.

Zn++ kin NaClO4 25°C 0.10M M M 1992KKb (2988) 95
K(ZnA+HL)=4.0
A:1,5,9-triazacyclododecane

Zn++ dis NaCl 25°C 0.68M C K1=3.30 1990SBb (2989) 96
K(Zn+HL)=0.85

Zn++ ISE NaClO4 25°C 3.00M C B2=6.9 1987FGa (2990) 97
B(Zn(OH)2L)=12.2

Zn++ sp NaClO4 25°C 0.01M C TIH 1985EFa (2991) 98
K(Zn+HCO3)=1.44
Data for 25-45 C and 0.0012-0.05 M NaClO4.
DH(Zn+HCO3)=8.6 kJ mol-1.

Zn++ gl none 25°C 0.0 U 1985FGa (2992) 99
K(Zn+HL)=0.8
B(Zn2L)=5.1

Zn++ oth oth/un 25°C 0.0 C H K1=4.80 1984FCa (2993) 100
K(Zn+HCO3)=2.20
K(Zn+HCO3) calc using electrostatic model. K1 from assessment of lit data.
DH(K1)=-0.4 kJ mol-1, DH(Zn+HCO3)=4.3 (from DS calc by electrostat model)

Zn++ gl none 10°C 0.0 M T H 1978RBc (2994) 101
K(Zn+HL)=1.42
At 25 C: K(Zn+HL)=1.40; 40 C: 1.47; 55 C: 1.57; 70 C: 1.63

Zn++ vlt KNO3 25°C 0.10M U K1=3.9 1976BHa (2995) 102

Zn++ oth none 50°C 0.0 U T 1969HEa (2996) 103
Kso=-10.05
Method: Estimated data. Temp. range 50-300 C,(smithsonite). Kso=-10.19(60C);
-10.88(100 C); -11.77(150 C); -12.90(200 C); -14.18(250 C); -15.52 (300 C)

Zn++ sol NaClO4 25°C 0.20M U 1969SRa (2997) 104
*Kpso=7.57
*Kpso=7.35 (0 corr)
*Kpso(0.2Zn5(OH)6L2(s)+2H=Zn+0.4CO2(g)+1.6H2O)=9.42, (9.20, 0 corr)

Zn++ sol oth/un 20°C 0.06M U I M 1952SAa (2998) 105
Ks=-14.42
Ks: ZnL0.36(OH)1.28=Zn+0.36L+1.28OH. By Zn electrode, I=0 corr. Kso=-10.84

Zn++ oth none 25°C 0.0 U 1935KAa (2999) 106
Kso(ZnCO3(s))=-10.00
+Kpso=-7.51
From thermodynamic data. +Kpso: ZnCO3(s)+CO2(g)+H2O=Zn+2HCO3.
By solubility Kso=-10.78

Zn++ sol none 25°C 0.0 U T 1918SMa (3000) 107
Kso(ZnCO3(s))=-10.68
+Kso=-6.82
I=0 corr. +Kso: ZnCO3(s)+H2CO3=Zn+2HCO3. +Kso=-6.78(30 C)

Zn++ sol oth/un 25°C var U 1911AVa (3001) 108
Kso(ZnCO3(s))=-9.06
****
C2N3- HL Dicyanamide CAS 504-66-5 (2917)
Dicyanamide; (NC.N.CN)-

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ ISE non-aq 25°C 100% C K1=2.11 1982SSd (3467) 109
Medium: dimethylacetamide
****
C3N3O- HL (2919)
Nitrosodicyanmethanide; (ON.C(CN)2)-

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ ISE non-aq 25°C 100% C K1=1.95 1982SSd (3474) 110
Medium: dimethylacetamide
****
C4N3- HL CAS 454-50-2 (2918)
Tricyanomethanide; (C(CN)3)-

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ ISE non-aq 25°C 100% C K1=2.0 1982SSd (3476) 111
Medium: dimethylacetamide
****
C6N6Co--- H3L Cyanocobaltate (5470)
Hexacyanocobaltate; [Co(CN)6]---

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ con oth/un 0°C U K1=3.5 1969SSb (3481) 112
****

C6N6Fe---- H4L (2191)
Hexacyanoferrate (II); Fe(II)(CN)6----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	con	oth/un	?		U		1970BEa (3527)		113
							Kso=-16.8		
							Ks(K2Zn3L2=2K+3Zn+2L)=-38.3		
Zn++	ISE	oth/un	25°C	0.0	U		1964RPa (3528)		114
							Kso(Zn2L)=-15.68		
							Kso(KZn1.5L)=-21.09		
Method:amalgam electrode. Medium:0 corr									
Zn++	sol	oth/un	25°C	var	U		1961BSb (3529)		115
							Kso=-14.22 ?		
Zn++	sol	oth/un	25°C	var	U		1956TGb (3530)		116
							Kso=-15.39		

****

Cl- HL Chloride CAS 7647-01-0 (50)
Chloride;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	EMF	non-aq	25°C	100%	C	HM	2001KTa (3933)		117
							B(Zn(phen)Cl2)=16.4		
							B(Zn(phen)2Cl)=16.0		
							B(Zn(phen)2Cl2)=18.69		
Medium: DMF, 0.40 M Et4NClO4. Method: Zn/Hg electrode. By calorimetry, DH(Zn(phen)Cl2)=-19 kJ mol-1, DH(Zn(phen)2Cl)=-57, DH(Zn(phen)2Cl2)=-60									
Zn++	ISE	NaNO3	25°C	0	C	TI	K1=0.46	1998RSa (3934)	118
Method: Cl-ISE, extrapolated to I=0									
Zn++	sol	NaCl	200°C	0.10M	C		K1=1.7 B2= 3.00	1998WBa (3935)	119
Method: solubility of ZnO (zincite) in 0.10 m NaCl.									
Zn++	oth	NaCl	25°C	0.0	U	I	K1=0.43 B2= 0.61	1996AEb (3936)	120
							B3=0.51		
							B4=0.20		
Method: SIT theory applied to literature data. Medium: LiCl, infinite dilution. In 1.0 M LiCl, K1=-0.08, B2=-0.35, B3=-0.34, B4=-0.27.									
Zn++	sol	KCl	400°C	var	U	TI	K1=7.70 B2=8.40	1994CHa (3937)	121
300-600 C and 0.5-2.0 kbar. Constants at I=0, 1.0 kbar									
Zn++	gl	NaClO4	25°C	0.10M	M	M	1994KTa (3938)		122
							K(ZnA+L)=1.5		
A:1,4,7,10-Tetraazacyclododecane. By kinetic methods, K=1.2									

```
-------------------------------------------------------------------------------
Zn++       cal non-aq 25°C 100%  C   H    K1=8.6    B2=16.40  1994SKa  (3939) 123
                                          B3=21.4
                                          B4=23.4
Medium: Dimethylacetamide. DH(K1)=-1.8 kJ mol-1, DH(B2)=-22.5, DH(K3)=-39.4,
DH(K4)=-50
-------------------------------------------------------------------------------
Zn++       kin NaClO4 25°C 0.10M M    M                  1992KKb  (3940) 124
                                          K(ZnA+L)=1.3
A:1,5,9-triazacyclododecane
-------------------------------------------------------------------------------
Zn++       cal non-aq 25°C 100%  U   H    K1=9.49   B2=16.01  1991AIa  (3941) 125
                                          K3=3.64
                                          K4=2.29
Medium: hexamethylphosphoric triamide, 0.1 M (C4H9)4NClO4. Also DH and DS
-------------------------------------------------------------------------------
Zn++       ISE non-aq 25°C 100%  C  I                   1990CHb  (3942) 126
                                          B3=20.0
                                          B4=24.9
Medium: MeCN, 0.1 M Et4NClO4. Also data at 0% MeCN: K1=-0.34, B2=-0.71;
5% MeCN: K1=0.0; 10% AN: K1=0.41; 50% AN: K1=2.7, B2=6.25, B3=7.48
-------------------------------------------------------------------------------
Zn++       ISE non-aq 25°C 100%  C  IH    K1=8.07   B2=15.26  1990PDa  (3943) 127
                                          K3=4.87
                                          K4=2.89
Medium: MeCN, 0.1 M (PyH)CF3SO3; DH(K1)=-5.8, DH(K2)=-7.1, DH(K3)=-20.0,
DH(K4)=-11.3 kJ mol-1. In pyridine K1=2.73, K2=2.11; DH(K1)=-2.5, DH(K2)=6.7
-------------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U   H    K1=3.5    B2=8.6    1990SIa  (3944) 128
                                          B3=12.21
                                          B4=13.17
Medium: DMSO, 0.4 M Et4NBF4. By calorimetry: DH(K1)=16 kJ mol-1, DH(B2)=24.8
DH(B3)=13.3, DH(B4)=6.6
-------------------------------------------------------------------------------
Zn++       EMF NaClO4 25°C 5.00M U  I     B2=0.57        1988FSb  (3945) 129
                                          B4=0.63
Molal equilibrium constants: B2=0.39; B4=0.27
-------------------------------------------------------------------------------
Zn++       cal non-aq 30°C 100%  U   H                   1988GKa  (3946) 130
                                          K3>6
                                          K4=3.34
Medium: CH3CN. DH(K3)=-26.4, DH(K4)=-21.1 kJ mol-1; DS(K4)=6 J K-1 mol-1
-------------------------------------------------------------------------------
Zn++       ISE non-aq 25°C 100%  U        K1=4.08   B2=9.8    1988SGa  (3947) 131
Medium: DMSO, 0.1 M Et4NCl
-------------------------------------------------------------------------------
Zn++       sol NaCl   100°C  var  M TIH    K1=1.2    B2= 1.90  1987BBe  (3948) 132
                                          B3=2.3
                                          B4=1.4
Solubility zincate (ZnO) and smithsonite (ZnCO3) in 0-5.0 m NaCl-CO2 soln.
```

Data 100-350 C. At 100 C, DH=10.0 (K1), 14.6 (B2), 18.8 (B3), 16.3 (B4).

Zn++ EMF non-aq 25°C 100% U H K1=2.81 1987BCb (3949) 133
Medium: MeOH, 0.05 M Et4NClO4

Zn++ cal non-aq 25°C 100% C H K1=4.81 B2=11.80 1987IOa (3950) 134
K3=5.26
K4=2.22
Medium: N,N-dimethylformamide, 0.4mol dm-3 Et4NClO4. DH(K1)=14.7 kJ mol-1, DH(K2)=1.4, DH(K3)=-17.6, DH(K4)=-7.9

Zn++ EMF mixed 25°C 30% U K2=0.76 1987PIa (3951) 135
B3=1.43
B4=1.64
Medium: 30% DMF/H2O

Zn++ ISE non-aq 30°C 100% U K1=12.1 B2=25.50 1986BWa (3952) 136
K3=10.1
K4=5.2
Medium: Sulfolane

Zn++ dis NaNO3 25°C 1.1M U I K1=-0.25 B2= 1.89 1986PSa (3953) 137
For I=0 (extrapolation) K1=0.35
In 0.1 M KNO3 K1=-0.19; in 0.1 NH4NO3 K1=-0.22

Zn++ sol oth/un 100°C var U TIH K1=1.80 B2=1.92 1986RSb (3954) 138
B3=1.36
B4=2.04
Constants valid at I=0. I=0.3-3.5 M HCl. 100-350 C.
DH(K1)=52.7 kJ mol-1; DH(K2)=-4.2; DH(K3)=-9.7; DH(K4)=8.7

Zn++ EMF non-aq 25°C 100% U I K1=3 B2=8.2 1985GSa (3955) 139
B3=10.7
Medium: DMF. In DMSO; B2=6.16, B3=8.76. Data also in DMSO/H2O & DMF/H2O mixtures. Medium: 0.5 M NH4ClO4

Zn++ ISE oth/un 25°C 2.0M U I K1=-0.33 B2=-0.46 1985PBc (3956) 140
Zn-electrode; in Mg(ClO4)2; for I=3.0 M K1=-0.28; B2=-0.38
in Ca(ClO4)2 (I=2.0) K1=-0.29; B2=-0.42; I=3.0: K1=-0.22;

Zn++ ISE alc/w 25°C 100% U K1=3.89 B2=8.13 1982DKa (3957) 141
K3=2.60
K4=1.41

Zn++ sp non-aq 25°C 100% U I B2=7.04 1982LPa (3958) 142
B3=11.32
Medium: DMSO, 0.2 M M(ClO4)2

Zn++ ISE non-aq 25°C 100% U K1=3.80 1982SSd (3959) 143
Medium: dimethylacetamide

```
--------------------------------------------------------------------------------
Zn++       con mixed  25°C  99%  U  I     B2=6.16        1980GSa  (3960) 144
                                          B3=8.76
In 99% mol/mol DMSO/H2O, 0.5M NH4ClO4. In 69% DMSO/H2O, B2=5.38, B3=7.35.
In 58% DMSO/H2O, K1=0.2, B2=4.84, B3=6.57. Also data for other compositions
--------------------------------------------------------------------------------
Zn++       ISE NaClO4 25°C  3.0M U  I     K1=-0.19       1979FKd  (3961) 145
--------------------------------------------------------------------------------
Zn++       ISE non-aq 25°C 100%  U        K1=4.0    B2=8.48   1979LTb  (3962) 146
                                          B3=13.08
                                          B4=13.60
                                          B5=14.30
                                          B6=14.85
Medium: DMF. Method: Zn-electrode
--------------------------------------------------------------------------------
Zn++       dis oth/un 25°C    ?  U        K1=0.38   B2=0.28   1978BZa  (3963) 147
                                          B3=-0.17
                                          B4=-0.82
--------------------------------------------------------------------------------
Zn++       ISE NaClO4 25°C 3.00M U  I M   K1=-0.19  B2=-0.19  1978FKa  (3964) 148
                                          B3=-0.22
                                          B4=-0.70
                                          B(ZnClBr)=-0.02
                                          B(ZnCl2Br)=-0.16
B(ZnClI2)=-0.72, B(ZnCl2I)=-0.37 and B(ZnCl3I)=-0.08.
--------------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U    M                  1978NVa  (3965) 149
                                          K(ZnA+L)=2.5
A=Tetraphenylporphyrin. Medium: CH2Cl2, 0.0124 Bu4N.BF4
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 4.00M U        K1=0.34   B2=0.00   1977SJe  (3966) 150
                                          B3=0.71
                                          B4=0.40
--------------------------------------------------------------------------------
Zn++       dis NaNO3   RT     1M U        K1=0.73   B2= 1.17  1977SKg  (3967) 151
                                          K3=0.03
                                          K4=-0.57
Extraction into benzene from HNO3 with trioctylamine
--------------------------------------------------------------------------------
Zn++       ISE non-aq 25°C 100%  C   H    K1=1.93   B2=5.83   1976ABc  (3968) 152
                                          K3=2.23
                                          K4=1.0
Medium: Dimethylsulfoxide, 1.0 M NH4ClO4; DH(K1)=22.3, DH(K2)=0.8,
DH(K3)=-10.2 kJ mol-1
--------------------------------------------------------------------------------
Zn++       ISE non-aq 25°C 100%  C        K1=1.93   B2= 5.83  1976ABg  (3969) 153
                                          K3=2.23
Medium:1 M NH4ClO4 in DMSO
Zn(Hg)-electrode
--------------------------------------------------------------------------------
```

Zn++ dis oth/un 20°C var C K1=0.49 B2= 0.00 1976SMb (3970) 154
B3=0.92
B4=0.02
Method: extraction from 0.005-0.5 M HCl solution into Aliquot-336/benzene.

Zn++ ISE NaClO4 25°C 4.00M U I M K1=0.15 B2=0.57 1975FCa (3971) 155
B3=0.78
B4=1.00
B(ZnCl(SO4))=0.38
B(ZnCl2(SO4))=0.48
B(ZnCl(SO4)2)=0.48, B(ZnCl3(SO4))=1.30, B(ZnCl2(SO4)2)=0.60. Data also for
I=1,2 and 3 and Cd/Zn polynuclear complexes

Zn++ gl none 25°C 0.0 U B2=-0.10 1975LTa (3972) 156

Zn++ ISE NaClO4 25°C 5.0M U TI K1=0.2 B2=0.8 1974ASb (3973) 157
B3=1.1
B4=(0.9)
At I=4: K1=0.1,B2=0.5,B3=0.7; I=6: K1=0.3,B2=1.1,B3=1.5
At 60 C,I=3: K1=-0.2,B2=0.6,B3=0.8. Method: Zn amalgam and Ag electrodes
---
Zn++ ISE non-aq 25°C 100% U K1=6.66 B2=12.86 1974BAd (3974) 158
B3=18.11
B4=22.0
Medium: TBP. Method: Ag electrode

Zn++ ISE NaClO4 25°C 1.0M U K1=0.11 1974BLb (3975) 159

Zn++ ISE non-aq 25°C 100% U I K1=6.5 B2=12.7 1974BMa (3976) 160
B3=18.9
B4=24.8
Medium: LiCl in tributylphosphate, saturated with H2O; AgCl/Cl-electrode
---
Zn++ ix NaClO4 20°C 0.69M U K1=0.72 B2=0.53 1974MId (3977) 161
B3=0.16
B4=-0.32
Medium: HClO4

Zn++ EMF R4N.X 55°C x=2 U TIH K1=1.52 B2=3.52 1974NGb (3978) 162
Medium: NH4NO3(H2O)x(x=2). K1=1.64,K2=1.76(70 C). When x=3:K1=1.38,K2=1.92
DH(K1)=18 kJ mol-1, DS=84 J K-1 mol-1

Zn++ dis R4N.X 55°C ? U T K1=0.58 B2=1.60 1974NGc (3979) 163
K3=0.72
K4=0.41
Medium: NH4NO3(H2O)2. K1=0.65, K2=1.00, K3=0.51, K4=0.65(70 C)(m units)

Zn++ ISE non-aq 25°C 100% U 1973AMa (3980) 164
B3=20.1
B4=23.4

Medium: MeCN, 0.1 M Et4NClO4. Method: Zn amalgam electrode

Zn++ EMF non-aq 300°C 100% U 1973BBc (3981) 165
K4=2.15(m units)

Medium: (K,Al)Cl, 51.7% KCl

Zn++ ISE mixed 25°C 50% U K1=1.93 B2=2.51 1973BMa (3982) 166
B3=2.90

Medium: 50% v/v hexamethylphosphortriamide/H2O, 2 M NH4NO3

Zn++ kin NaClO4 25°C 1.0M U K1=-0.06 1973HHb (3983) 167

Zn++ ISE non-aq 25°C 100% U K1=3.48 B2=6.00 1973SLd (3984) 168
B3=8.64

Medium: DMSO, 1 M LiClO4. By least squares: K1=3.38,B2=5.90,B3=8.65.
Method: Zn amalgam electrode

Zn++ sol NaClO4 25°C 0.20M U K1=0.78 1972GSa (3985) 169

Zn++ sol NaClO4 25°C 0.20M U I K1=0.78 1972GSa (3986) 170
*Kso(Zn(OH)1.6Cl0.4)=8.22
*Kso(Zn(OH)1.8Cl0.2)=9.84

Zn++ dis NaClO4 25°C 1.0M U K1=0.00 1972MSc (3987) 171

Zn++ EMF non-aq 25°C 100% U B2=9.27 1971DTb (3988) 172

Medium: SeOCl2, 0.5 M Et4NClO4

Zn++ EMF NaClO4 25°C 3.0M U K1=0.00 B2=-0.07 1971FCb (3989) 173
B3=0.33

Medium: LiClO4

Zn++ ISE NaClO4 15°C 3.0M U TI K1=-0.11 B2=-0.07 1970FCa (3990) 174
B3=0.04
B4=-0.2

Medium:LiClO4.K1=-0.24,B2=-0.34,B3=-0.08(I=2);K1=-0.05,B2=0.46,B3=0.74,
B4=0.54(I=4). Method: Zn amalgam electrode. Data from 15 - 65 C

Zn++ dis NaClO4 ? 1.0M U K1=-0.37 B2=0.31 1970LEa (3991) 175
K3=-0.30
K4=-0.07

Zn++ ix oth/un ? var U M 1970LEa (3992) 176
K(ZnBr2+L)=0.5
K(ZnBr2L+L)=-0.3

Zn++ cal NaClO4 25°C 3.0M U H 1969GEa (3993) 177

DH(K1)=5.5 kJ mol-1,DS=15.1 J K-1 mol-1; DH(K2)=37.7,DS=113; DH(K3)=0,DS=8

Zn++ oth none 50°C 0.0 U T K1=0.90 B2=1.12 1969HEa (3994) 178

```
                                        B3=1.14
                                        B4=0.89
Evaluated from literature data. At 100 C: values: 1.82, 2.13, 2.23, 2.14;
150 C: 2.78, 3.19, 3.34, 3.35
--------------------------------------------------------------------------------
Zn++       ix  NaCl     ?   var  U                      1969LTa  (3995) 179
                                        K3=-0.3
                                        K4=-0.1
--------------------------------------------------------------------------------
Zn++       dis NaClO4 25°C  1.0M U T H    K1=0.83   B2=0.56   1969MAa  (3996) 180
                                        B3=0.66
Medium: HClO4. K1=0.56,B2=0.32,B3=-0.05(10 C); K1=1.02,B2=0.72,B3=1.05(40 C)
DH(K1)=26.4 kJ mol-1,DS=104 J K-1 m-1; DH(B2)=22.6,DS=88; DH(B3)=52.7,DS=205
--------------------------------------------------------------------------------
Zn++       EMF oth/un   ?   var  U        B2=0.57        1969SMm  (3997) 181
                                        B3=0.06
                                        B4=-0.3
Medium: CaCl2; assuming n=coordination number=6.  Assuming a c.no. of 4:
B2=0.60, B3=0.15
--------------------------------------------------------------------------------
Zn++       con non-aq 25°C 100%  U    M                 1968LPb  (3998) 182
                                        K(3ZnL2S2+2S=ZnS6+2ZnL2S)=-6.0
Medium(S): MeCN K=-5.01 in diagram
--------------------------------------------------------------------------------
Zn++       oth oth/un 23°C  var  U        K2=0           1968SCc  (3999) 183
                                        K3=0
Method:electrical migration or transference number.   Medium:LiCl var
--------------------------------------------------------------------------------
Zn++       ISE oth/un 25°C  0.0  U T                    1968SMe  (4000) 184
                                        Ks(Zn(OH)2-xClx(H2O)y)=-13.63
Data for x=0.5, y=0.7 after 1 hour and times up to 4 months. See also p.2764
--------------------------------------------------------------------------------
Zn++       oth oth/un       var  U        B2=-1.50       1967GIa  (4001) 185
                                        K3K4=-1.4
Method:Raman spectra.   Medium:(Li,Zn)Cl var
--------------------------------------------------------------------------------
Zn++       oth oth/un 25°C  var  U                      1967JCa  (4002) 186
                                        K3=0.8
Method:from molar volumes
--------------------------------------------------------------------------------
Zn++       dis oth/un 25°C  0.0  U        K1=-0.19  B2=0.18   1966SOa  (4003) 187
                                        B3=-1.4
                                        B4=-1.52
--------------------------------------------------------------------------------
Zn++       ISE oth/un 25°C  4.0M U    M                 1965RUa  (4004) 188
                                        K(K+ZnCl3)=-0.40
                                        K(K+ZnCl4)=0.2
Method:amalgam electrode. Medium: LiCl
--------------------------------------------------------------------------------
Zn++       ISE oth/un 25°C 2.50M U T                    1964BMc  (4005) 189
```

B3=1.30
Method:amalgam electrode. Medium:Ca(ClO4)

Zn++ ISE NaClO4 25°C 4.0M U M K1=0.3 B2=0 1964MKc (4006) 190
K(Na+ZnCl3)=-0.7
K(K+ZnCl3)=-0.2
K(2K+ZnCl3)=-1
K(Rb+ZnCl3)=-0.1
Method:amalgam electrode. Medium: LiClO4. K(2Cs+ZnCl3)=-0.5

Zn++ ISE KCl 25°C 4.0M U 1963MIb (4007) 191
K(K+ZnCl3)=-0.28
K(K+ZnCl4)=0.0
Method:amalgam electrode. Medium: LiCl

Zn++ ix none 25°C 0.0 U K1=0.43 B2=0.61 1963MMd (4008) 192
B3=0.53
B4=0.20

Zn++ ix oth/un 25°C 10.0M U 1962MIa (4009) 193
K(H+ZnCl4)=0.9
K(H+HZnCl4)=0.58
Medium: LiCl

Zn++ dis oth/un 20°C var U 1962MSc (4010) 194
K(ZnL2+2TBP(C6H6)=ZnL2(TBP)2(C6H6))=-0.8, K(H+ZnL3+3TBP(C6H6)=HZnL3(TBP)3
(C6H6))=0.3, K(2H+ZnL4+2TBP(C6H6)=H2ZnL4(TBP)2(C6H6))=-0.4

Zn++ ix NaClO4 20°C 0.69M U K1=0.72 B2=0.49 1961SMc (4011) 195
K3=-0.68
K4=0.37
B4=0.18

Zn++ ix none 115°C 0.0 U T H B2=2.57 1960KRa (4012) 196
I=0 corr. B2=3.30(150 C), DH(B2)=66 kJ mol-1

Zn++ dis NaClO4 20°C 1.0M U K1=0.2 B2=0.3 1960TDa (4013) 197

Zn++ oth oth/un 0°C sat U I K1=0.27 1959KEb (4014) 198
Method: freezing point, medium: KClO3 sat. In KClO4 sat. K1=0.68, I=0 corr
K1=0.96

Zn++ ix none ? 0.0 U K1=-0.5 B2=-1.0 1959MCa (4015) 199
K3=1.00
K4=-1.0
K(H+ZnCl4=HZnCl4)=0.00

Zn++ ISE none 25°C 0.0 U 1958ASd (4016) 200
Ks(ZnCl0.5(OH)1.5)=-13.4

```
Zn++       ix  alc/w  24°C  24%  U                      1957HHa  (4017) 201
                                    K3=1.3
                                    K4=-1.3
                                    K(Li+ZnCl4)=1.7
                                    K(H+ZnCl4)=1.85
Medium: 24 mole % EtOH/H2O. K(2Cs+ZnCl4)=2.7.
-------------------------------------------------------------------------
Zn++       vlt NaClO4 25°C  2.0M U       K1=-0.49  B2=0.02   1957KLa  (4018) 202
                                    K3=-0.09
-------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C  4.0M U  I                  1957KLb  (4019) 203
                                    B(Zn2H-1L)=-7.11
In 4 M NaCl: K(2ZnL3+H2O=(Zn2L5(OH)+H+L)=7.18
-------------------------------------------------------------------------
Zn++       cal R4N.X  25°C  25%  U   H                 1957TSa  (4020) 204
Medium: 25% NH4Cl/H2O. DH(B4)=29 kJ mol-1
-------------------------------------------------------------------------
Zn++       oth non-aq 300°C 100%  U       B2=2.58       1956ARc  (4021) 205
                                    B4=3.29
Method: freezing point, medium: liquid NaNO3, m units
-------------------------------------------------------------------------
Zn++       ISE oth/un 25°C 4.50M U   H    K1=-0.32  B2=-0.05  1956SLa  (4022) 206
                                    K3=-0.25
                                    K4=0.15
Method: Zn/Hg electrode. DH(K1)=0 kJ mol-1,DS=-6 J K-1 m-1; DH(K2)=21.3, DS=
77; DH(K3)=59.1,DS=192; DH(K4)=-75.7,DS=-251 ? (misprints in text?)
-------------------------------------------------------------------------
Zn++       ISE none   25°C  0.0  U                      1956TSa  (4023) 207
                                    B4=0.88
-------------------------------------------------------------------------
Zn++       vlt R4N.X  25°C  20%  U                      1956TSb  (4024) 208
                                    B4=1
Medium: 20% NH4Cl/H2O
-------------------------------------------------------------------------
Zn++       gl  oth/un 25°C  var  U                      1950FHa  (4025) 209
                                    Ks(ZnCl0.29(OH)1.71)=-14.92
                                    Ks(ZnCl0.4(OH)1.6)=-14.2
-------------------------------------------------------------------------
Zn++       ISE NaClO4 25°C  3.0M U       K1=-0.19  B2=-0.6   1944SLa  (4026) 210
                                    B3=0.15
-------------------------------------------------------------------------
Zn++       ISE oth/un 25°C  var  U       K1=0.6 ?      1940RSb  (4027) 211
Method: Zn/Hg electrode, medium: ZnCl2
-------------------------------------------------------------------------
Zn++       con alc/w  25°C 100%  U                      1934CHa  (4028) 212
                                    K3/K2=-4.80
Medium: EtOH
*************************************************************************
ClO3-                  HL    Chlorate         CAS 7790-93-4  (971)
Chlorate;
```

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	cal	oth/un	25°C	1.00M	U	H		1975ARa (6021)	213

DH(K1)=-4.37 kJ mol-1. DS = -16.9 J K-1 mol-1. Medium: 1.0 M NaClO3

Zn++	kin	NaClO4	25°C	1.0M	U		K1=-0.12	1973HHb (6022)	214

****

ClO4- HL Perchlorate CAS 7001-90-3 (287)

Perchlorate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	con	non-aq	25°C	100%	U		K1=1.54	1981LGa (6120)	215

Medium: DMSO; K1 in DMSO/benzene (mole fraction 0.3)=1.77

Zn++	con	non-aq	25°C	100%	U	T	K1=1.7	1973DFa (6121)	216

Medium: MeCN. K1=1.5(-30 C), 1.5(-15 C)

Zn++	con	none	20°C	0.0	U		K1=1.35	1963FPb (6122)	217

I=0 corr. By Zn electrode, K1=1.6?

****

CrO4-- H2L Chromate CAS 7738-94-5 (2382)

Chromate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	none	20°C	0.0	U			1954FHa (6453)	218

Ks(Zn(CrO4)0.2(OH)1.6)=-16.3

****

F- HL Fluoride CAS 7644-39-3 (201)

Fluoride;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	ISE	NaClO4	25°C	1.00M	U	I	K1=3.5	1990HTb (6608)	219

Using fluoride ion-selective electrode. Data at 0.01 to 3.0 M NaClO4.
B1=3.6, B2=3.8 using amalgam electrodes (1.0 M NaClO4)

Zn++	ISE	R4N.X	25°C	0.05M	U	I	K1=1.30	1983SBa (6609)	220

Medium: 0.05 M Et4NF. In MeOH, 0.05 Et4NF, K1=3.36

Zn++	ISE	NaClO4	25°C	1.00M	U	I	K1=1.1	1981KBb (6610)	221
Zn++	sp	non-aq	25°C	100%	U	M		1978NVa (6611)	222

K(ZnA+L) > 4

A=Tetraphenylporphyrin. Medium: CH2Cl2, 0.0124 Bu4N.BF4

Zn++	ISE	NaClO4	25°C	3.00M	U		K1=0.88	1976KBa (6612)	223

Zn++ cal oth/un 25°C 0.50M U H K1=0.48 1974ARc (6613) 224
DH(K1)=12.8 kJ mol-1, DS=52 J K-1 mol-1

Zn++ ISE NaClO4 25°C 1.0M U K1=0.51 1972BHc (6614) 225
method:emf with fluoride-ion selective electrode

Zn++ ISE none 25°C 0.0 U K1=1.15 1971CDb (6615) 226

Zn++ ISE NaNO3 16°C 0.50M U K1=0.45 1970BOa (6616) 227

Zn++ vlt NaClO4 25°C 1.0M U K1=1.0 1970BOb (6617) 228

Zn++ vlt KNO3 30°C 1.0M U K1=0.95 1969BOa (6618) 229

Zn++ cal NaClO4 25°C 1.0M U H K1=0.75 1969GEa (6619) 230
DH(K1)=8.3 kJ mol-1, DS=42.3 J K-1 mol-1(I=1); DH(K1)=7.66, DS=41.84(I=3)

Zn++ EMF NaClO4 20°C 1.0M U K1=0.81 1969VAa (6620) 231
Electrode: quinhydrone electrode

Zn++ vlt NaNO3 25°C 0.30M U K1=0.92 1967VKa (6621) 232

Zn++ vlt NaNO3 18°C 1.0M U K1=1.53 1965SGc (6622) 233

Zn++ vlt NaClO4 25°C 2.0M U K1=0.85 1963MHa (6623) 234

Zn++ EMF NaClO4 25°C 0.50M U TIH K1=0.73 1958CPa (6624) 235
K(Zn+HF=ZnF+H)=-2.18
DH(K1)=6.3 kJ mol-1, DS=33 J K-1 mol-1; DH(*K1)=-9.6, DS=-71. At 15 C: *K1=
-2.15, K1=0.70; 35 C: *K1=-2.27, K1=0.73. At I=0 corr: K1=1.26

Zn++ EMF NaClO4 20°C 1.00M U K1=0.77 1956ARa (6625) 236

Zn++ EMF NaClO4 25°C 0.50M U TIH K1=0.73 1955PAa (6626) 237
K1=0.70(15 C), K1=0.73(35 C). DH(K1)=6.3 kJ mol-1, DS=33 J K-1 mol-1 (25 C)
At I=0 cor: K1=1.26, DS=54
****
FClBrI HL (541)
Halides, comparative (for book data under ligand 80)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ dis non-aq 200°C 100% U T H 1968ZAc (7378) 238
K(Zn+Cl)=5.2
K(ZnCl+Cl)=4.9
K(ZnCl2+Cl)=0.85
K(ZnCl3+Cl)=0.7
Medium:(Li/K)NO3 eutectic. Kd(ZnCl2(melt)=ZnCl2(polyphenyl eutectic)=0.34
Also at 150 C and data for Br, I

```
Zn++       dis non-aq 200°C 100%  U T  M                1968ZEa  (7379) 239
                                       K(ZnCl2+ZnBr2=2ZnClBr)=1.28
                                       K(ZnCl2+ZnI2=2ZnClI)=1.11
                                       K(ZnBr2+ZnI2=2ZnBrI)=0.96
                                       K(ZnCl2+Br)=0.7
Medium:(Li/K)NO3 eutectic. Data for 150 to 200 C and for many mixed equilib.
********************************************************************************
GeW11O39--------      H8L                    CAS 37369-86-1  (2466)
alpha-Heteromonogermanium-polytungstate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 1.00M U        K1=6.32        1984COa  (7463) 240
********************************************************************************
HPO3--                 H2L    Phosphite        CAS 13598-36-2  (6305)
Phosphite;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       ISE oth/un 20°C  var  U         K1=4.76        1965FPa  (7500) 241
                                       B(Zn+HL)=2.28
                                       B(ZnHL+HL)=1.26
                                       K(ZnL+H)=4.07
Other methods: H electrode, conductivity
********************************************************************************
H2O                     L    Water            CAS 7732-18-5  (6115)
Water
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       vlt alc/w  25°C 100%  U         K1=1.29   B2=2.01   1968LOa  (7565) 242
                                       K3=-0.40
                                       K4=-1.43
Medium: MeOH. By chronopotentiometry: K1=1.07, K2=0.64, K3=-0.46, K4=-1.42
--------------------------------------------------------------------------------
Zn++       vlt alc/w  25°C 100%  U         K1=-0.30  B2=0.22   1961MGa  (7566) 243
                                       B3=0.36
Medium: MeOH, 0.01 M NH4ClO4
********************************************************************************
H2PO2-                 HL    Hypophosphite    CAS 6303-21-5  (6304)
Hypophosphite;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       nmr NaNO3  25°C  4.0M U  I     K1=0.3    B2=0.0    1968HGb  (7633) 244
With 4 M NaClO4: K1=0.54, B2=0.2
********************************************************************************
I-                     HL    Iodide           CAS 10034-85-2  (20)
Iodide;
--------------------------------------------------------------------------------
```

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	EMF	non-aq	25°C	100%	C	HM		2001KTa	(7669)	245
							B(Zn(phen)I2)=9.3			
							B(Zn(phen)2I2)=13.9			
Medium: DMF, 0.40 M Et4NClO4. Method: Zn/Hg electrode. By calorimetry, DH(Zn(phen)I2)=10 kJ mol-1, DH(Zn(phen)2I2)=-41										
Zn++	cal	non-aq	25°C	100%	C	H	K1=3.8	B2=7.10	1994SKa	(7670) 246
Medium: Dimethylacetamide. DH(K1)=21.3 kJ mol-1, DH(B2)=23.7										
Zn++	cal	non-aq	25°C	100%	U	H	K1=4.06	B2=5.60	1991AIa	(7671) 247
hexamethylphosphoric triamide solvent with 0.1 M (C4H9)4NClO4 DH andDS values also										
Zn++	cal	non-aq	25°C	100%	U	HM	B2=4.21		1990IMa	(7672) 248
							B3=5.86			
							B(Zn(bpy)L)=5.6			
							B(Zn(bpy)2L)=8.19			
							B(Zn(bpy)L2)=6.88			
In DMF, 0.10 M Et4NClO4. DH(B2)=55, DH(B3)=69, DH(Zn(bpy)L)=3, DH(Zn(bpy)2L)=-32, DH(Zn(bpy)L2)=50 kJ mol-1.										
Zn++	ISE	non-aq	25°C	100%	C	H	K1=4.50	B2=11.19	1990PDa	(7673) 249
							K3=4.18			
							K4=2.69			
Medium: MeCN, 0.1 M (PyH)CF3SO3; DH(K1)=12, DH(K2)=-5.2, DH(K3)=-14.7, DH(K4)=0.0 kJ mol-1. In pyridine K1=2.45, DH(K1)=20.1										
Zn++	cal	non-aq	30°C	100%	U	H			1988GKa	(7674) 250
							K3=3.49			
Medium: CH3CN. DH(K3)=-12.7 kJ mol-1; DS(K3)=-25 J K-1 mol-1										
Zn++	ix	mixed	25°C	90%	C	I	K1=3.97	B2=5.55	1986KUb	(7675) 251
							B3=7.71			
Medium: 90% acetonee/H2O. in 80% acetone/H2O, K1=2.61, B2=4.14										
Zn++	EMF	non-aq	25°C	100%	U	I	K1=0.8	B2=2.8	1985GSa	(7676) 252
							4.3			
Medium: DMF. In DMSO; K1=0.12. Data also in DMSO/H2O & DMF/H2O mixtures. Medium: 0.5 M NH4ClO4										
Zn++	ix	non-aq	25°C	100%	U	I	K1=2.36	B2=3.04	1984KUa	(7677) 253
Medium: ethylene glycol										
Zn++	ISE	alc/w	25°C	100%	U		K1=2.81	B2=6.81	1983DSa	(7678) 254
Zn++	ISE	non-aq	25°C	100%	C		K1=2.11		1982SSd	(7679) 255
Medium: dimethylacetamide										

```
Zn++       ISE NaClO4 25°C  3.0M U  I     K1=-0.57       1979FKd  (7680) 256
--------------------------------------------------------------------------------
Zn++       ISE non-aq 25°C 100%  U        K1=1.70   B2=3.30   1979LTb  (7681) 257
                                          B3=5.42
                                          B4=5.48
Medium: DMF. Method: Zn-electrode
--------------------------------------------------------------------------------
Zn++       ISE NaClO4 25°C 3.00M U  I M   K1=-0.57  B2=-1.22  1978FKa  (7682) 258
                                          B3=-1.80
                                          B(ZnClI)=-0.24
                                          B(ZnCl3I)=-0.08
--------------------------------------------------------------------------------
Zn++       ISE non-aq 25°C 100%  C   H    K1=-0.70  B2=0.71   1976ABc  (7683) 259
                                          K3=0.15
Medium: Dimethylsulfoxide, 1.0 M NH4ClO4; DH(K1)=19.0, DH(K2)=29.4,
DH(K3)=12.7 kJ mol-1
--------------------------------------------------------------------------------
Zn++       ISE non-aq 25°C 100%  C        K1=-0.70  B2= 0.70  1976ABg  (7684) 260
                                          K3=1.15
Medium:1 M NH4ClO4 in DMSO
Zn(Hg)-electrode
--------------------------------------------------------------------------------
Zn++       ISE non-aq 25°C 100%  U        K1=0.70   B2=1.18   1973SLc  (7685) 261
Medium: DMSO, 1 M LiClO4. Zn amalgam electrode
--------------------------------------------------------------------------------
Zn++       vlt non-aq 25°C 100%  U                            1972MAc  (7686) 262
                                          B4=18.4
Medium: MeCN, 0.1 M Et4NClO4
--------------------------------------------------------------------------------
Zn++       dis non-aq 150°C 100%  U T H    K1=7.38   B2=14.58  1968ZAa  (7687) 263
Medium:(Li,Na)NO3. DH(K1)=46.0 kJ mol-1, DH(K2)=46.0; K1=6.63,K2=6.43(165 C)
K1=5.93, K2=5.70(180 C); K1=5.04, K2=4.81(200 C) m units
--------------------------------------------------------------------------------
Zn++       ISE NaClO4 25°C  4.0M U        K1=-0.47  B2=-2.00  1967MFb  (7688) 264
                                          K3=1.26
                                          K4=-0.51
Method:amalgam electrode.  Medium:LiClO4. In 4M LiI: K(K+ZnI4)=-0.52,
K(K+ZnI3)=-1.1
--------------------------------------------------------------------------------
Zn++       EMF oth/un 25°C 4.50M U   H    K1=-2.93  B2=-1.68  1956SLa  (7689) 265
                                          K3=-0.07
                                          K4=-0.59
Method: Zn/Hg electrode. DH(K1)=0, DH(K2)=12 kJ m-1,DH(K3)=43.1,DH(K4)=-132;
DS(K1)=-56.1 J K-1 mol-1, DS(K2)=64.4, DS(K3)=143, DS(K4)=-454
--------------------------------------------------------------------------------
Zn++       EMF NaClO4 25°C  3.0M U                            1944SLa  (7690) 266
Method: Zn/Hg electrode. K1, B2 and B3 all <-1.3
********************************************************************************
IO3-                   HL    Iodate           CAS 7782-68-5  (1257)
Iodate;
```

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       sol none   20°C  0.0  U T                      1974SUa  (8453) 267
                                        Kso(ZnL2(s))=-5.45
at 20.2 C. Kso=-5.27(28.4 C), -5.13(40.6 C)
--------------------------------------------------------------------------------
Zn++       sol none   25°C  0.0  U                        1950SAa  (8454) 268
                                        Kso(ZnL2)=-5.41
********************************************************************************
NH2SO3-               H2L    Sulfamate        CAS 5329-14-6  (452)
Sulfamate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 3.00M U  I     K1=0.85   B2=1.10   1978NFa  (8796) 269
                                        K3=0.1
********************************************************************************
NH3                    L    Ammonia          CAS 7664-41-7  (414)
Ammonia
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.10M U                         1995KBb  (8984) 270
                                        K(ZnA+L)=2.08
                                        K(ZnAL+L)=0.60
Medium: 0.1 M NH4NO3.  H3A=NTA
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M A    M                    1982SSa  (8985) 271
                                        K(ZnA+L) < 2.3
A=uridine-5'-triphosphate
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.10M U   H    K1=2.35   B2=4.80   1974DTa  (8986) 272
                                        B3=7.31
                                        B4=9.46
DH(K1)=-10.7 kJ mol-1; DH(B2)=-23.8; DH(B3)=-40.1; DH(B4)=-61.9
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C  1.0M U       K1=2.136  B2=4.808  1972BPa  (8987) 273
                                        B3=7.114
                                        B4=9.32
--------------------------------------------------------------------------------
Zn++       gl  R4N.X  30°C  2.0M U       K1=2.446  B2=4.73   1970BSb  (8988) 274
                                        K3=2.638
                                        K4=2.111
Medium: 2M NH4NO3
--------------------------------------------------------------------------------
Zn++       sol NaClO4 25°C  1.0M U                         1968GSd  (8989) 275
                                        B4=10.84
                                        B(ZnL(OH)3)=16.94
                                        B(ZnL2(OH)2)=15.53
```

```
--------------------------------------------------------------------------------
Zn++       ISE R4N.X  30°C  2.0M U        K1=2.32   B2=4.61   1966LMd  (8990) 276
                                        K3=2.36
                                        K4=2.39
Medium: NH4NO3
--------------------------------------------------------------------------------
Zn++       dis NaClO4 20°C 0.10M U                     1962BOa  (8991) 277
                                        B(Zn(OH)L)=9.23
                                        B(Zn(OH)L2)=10.80
                                        B(Zn(OH)L3)=12.00
                                        B(Zn(OH)2L)=13.0
B(Zn(OH)2L2)=13.6, B(Zn(OH)3L)=14.5
--------------------------------------------------------------------------------
Zn++       vlt none   25°C  0.0  U T H                1959POb  (8992) 278
                                        B4=9.40
I=0 corr. B4=9.83(15 C), 9.60(20 C), 9.19(30 C), 8.83(40 C).
DH(B4)=-70.5 kJ mol-1; DS=-56.2
--------------------------------------------------------------------------------
Zn++       vlt none   20°C  0.0  U                    1958CPc  (8993) 279
                                        B4=10.49
I=0 corr., gelatin in solution. At 25 C, B5=12.75.
--------------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C  10%  U TIH    K1=2.59   B2=4.91   1957TSa  (8994) 280
                                        K3=2.01
                                        K4=1.70
Medium: NH4Cl, also 15% and 20%. In 25%: K1=2.31,K2=2.04,K3=1.76, K4=1.39
also 30,35 C.DH(B2)=-43 kJ mol-1,DH(B4)=-85. Really ZnCl4+2L=ZnCl2L2+2Cl etc
--------------------------------------------------------------------------------
Zn++       cal R4N.X  25°C  25%  U T H                1957TSa  (8995) 281
Medium: NH4NO3. DH(B4)=-88 kJ mol-1.
--------------------------------------------------------------------------------
Zn++       cal R4N.X  27°C  2.0M U   H                1957YMa  (8996) 282
Medium: NH4NO3. DH(K1)=-10.8 kJ mol-1, DS=8.8; DH(K2)=-13.0, DS=3.8;
DH(K3)=-16.3, DS=-6.3; DH(K4)=-21.8, DS=-31.4
--------------------------------------------------------------------------------
Zn++       gl  R4N.X  30°C  2.0M U        B2=5.26        1954WOa  (8997) 283
                                        B4=9.52
Medium: NH4NO3.
--------------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 2.10M U T H    B2=5.01        1953SPc  (8998) 284
                                        B4=9.80
Medium: NH4NO3. 10-40 C. DH(B2)=-28.0 kJ mol-1, DS=1.3; DH(B4)=-59.0, DS=-11
--------------------------------------------------------------------------------
Zn++       cal R4N.X   rt   3.0M U   H                1952FYa  (8999) 285
Medium: NH4NO3. DH(B4)=-66.5 kJ mol-1; DS=-57.3 J K-1 mol-1
--------------------------------------------------------------------------------
Zn++       ISE oth/un 18°C  var  U                    1951STa  (9000) 286
                                        B4=9.37
--------------------------------------------------------------------------------
Zn++       gl  R4N.X  30°C  2.0M U TIH    K1=2.37   B2=4.81   1941BJa  (9001) 287
```

K3=2.50
K4=2.15
B4=9.46
Medium: NH4NO3. At I=0 corr.: K1=2.18, K2=2.25, K3=2.31, K4=1.96, B4=8.70
DH(B4)=-59 kJ mol-1

Zn++ oth oth/un 25°C var U B2=4.85 1925WIa (9002) 288
B4=9.01
Method: partial pressure of NH3

Zn++ ISE oth/un 21°C var U 1903EUa (9003) 289
B4=9.58
****
NH3O L Hydroxylamine; CAS 5470-11-1 (1808)
Hydroxylamine; NH2.OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaNO3 20°C 0.50M U K1=0.5 1963SZa (9254) 290

Zn++ vlt KCl 25°C 1.0M U K1=0.40 B2=1.01 1955NYa (9255) 291
****
NO2- HL Nitrite CAS 7782-77-6 (635)
Nitrite;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ ISE NaClO4 25°C 1.00M C K1=0.37 B2=0.49 1988EAa (9339) 292

Zn++ sp oth/un 25°C var U K1=0.15 B2=0.10 1971BId (9340) 293
Method: Raman spectra
****
NO3- HL Nitrate CAS 7697-37-2 (288)
Nitrate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ cal NaNO3 25°C 1.00M U H 1975ARa (9489) 294
DH(K1)=-4.69 kJ mol-1. DS = -18.0 J K-1 mol-1.

Zn++ dis NaClO4 13°C 1.0M U T H K1=-0.68 1974MOc (9490) 295
Medium: HClO4. K1=-0.76(25 C), -0.75(30 C),-0.81(35 C). DH(K1)=-9.0 kJ mol-1

Zn++ ISE NaClO4 25°C 4.0M U I K1=0.11 B2=-0.82 1973FRa (9491) 296
B3=-0.60
B4=-1.3
Method: Zn/Hg electrode.Medium:LiClO4. K1=-0.18(I=0.5). -0.20,B2=-0.64(I=1).
K1=-0.14, B2=-0.82, B3=-1.15(I=2). K1=0.42, B2=-0.27, B3=-1.5 (I=0 corr)

Zn++ kin NaClO4 25°C 1.0M U K1=-0.12 1973HHb (9492) 297

```
--------------------------------------------------------------------------------
Zn++       sol KNO3   25°C 1.70M U  I                    1957NMa  (9493) 298
                                        Kso(ZnL0.5(OH)1.5)=-7.3
In 3 M Na2SO4, 40 C: Kso=-7.1. Zn-OH complexes neglected ?
--------------------------------------------------------------------------------
Zn++       sol oth/un 25°C  var  U                      1950FHa  (9494) 299
                                        Kso(ZnL0.4(OH)1.6)=-13.64
********************************************************************************
N2H4                    L    Hydrazine        CAS 302-01-2  (2117)
Hydrazine; H2N.NH2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.10M U    M                  1995KBb (10065) 300
                                        K(ZnA+L)=1.93
                                        K(ZnAL+L)=0.82
Medium: 0.1 M (NH3NH3)(NO3)2.  H3A=NTA
--------------------------------------------------------------------------------
Zn++       gl  oth/un 30°C 1.00M U        K1=3.78   B2=6.90   1977AGd (10066) 301
                                        K3=2.38
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 30°C  1.0M U        K1=3.69   B2=6.69   1967BSb (10067) 302
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C 0.50M U        K1=2.4    B2=4.2    1952SZa (10068) 303
                                        K3=1.3
                                        K4=0.8 ?
Medium: N2H5BF4
********************************************************************************
N3-                     HL    Azide            CAS 7782-79-8  (441)
Azide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       cal oth/un 25°C 0.05M C   H                  1981ABd (10152) 304
Medium: NaN3. DH(K1)=15.39 kJ mol-1, DS(K1)=79.2 J K-1 mol-1.
--------------------------------------------------------------------------------
Zn++       sp  NaClO4 25°C  1.0M C        K1=1.7         1978YOa (10153) 305
--------------------------------------------------------------------------------
Zn++       ISE none   25°C  0.0  M        K1=1.44   B2=1.14   1976DMa (10154) 306
--------------------------------------------------------------------------------
Zn++       ISE NaClO4 25°C 1.00M C   H    K1=0.76   B2=1.32   1975AAb (10155) 307
                                        B3=2.16
                                        B4=2.45
DH(K1)=2.57,DH(K2)=2.3;DH(K3)=7.6;DH(K4)=-6.5 kJ mol-1
--------------------------------------------------------------------------------
Zn++       ISE NaClO4 25°C  2.0M U        K1=0.78   B2=1.34   1970NAa (10156) 308
                                        B3=2.34
                                        B4=2.89
--------------------------------------------------------------------------------
Zn++       vlt NaClO4 25°C  2.0M U        K1=0.5    B2=1.19   1962BSc (10157) 309
```

****

OH- HL Hydroxide (57)
Hydroxide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sol	oth/un	25°C	0.0	C	T	Ks1=-2.407 Ks2=-7.851 Ks3=-16.948	2002BPb (10625)	310

Method: H2 electrode. Solubility of ZnO in acidic and alkaline media.
Data for 150-350 C. At 150 C, Ks1=-0.598, Ks2=-5.982, Ks3=-14.496

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sol	oth/un	25°C	0.0	C	T	*K1=-8.77 *K2=-10.26 *K3=-9.10	2002BPb (10626)	311

Method: H2 electrode. Solubility of zincite (ZnO) in acidic and alkaline media. Data for 150-350 C, extrapolated to 25 C.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	37°C	0.15M	C		*B2=-15.33	2002HTc (10627)	312

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	C		K1=3.53 B(ZnH2L2)=19.72 B(ZnH-1L)=-3.90	2002PLb (10628)	313

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	C		*B2=-16.55 *B4=-39.71	2002PLb (10629)	314

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	U		*K1=-7.89 *B2=-14.92	2001PSb (10630)	315

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	C		*K1=-7.89 *B2=-14.92	2000MSa (10631)	316

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sol	oth/un	25°C	0.0	C		Ks(ZnO+H=ZnOH)=2.42 Ks(ZnO+H2O=Zn(OH)2)=-6.68 Ks(ZnO+2H2O=Zn(OH)3+H)=-16.95	1999BPa (10632)	317

Method: solubility of ZnO (zincite) in 0.03 m sodium triflate and 0.03 m NaOH. Data for 75-200 C. Analysis by Pt/H2 electrode and ICP.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sol	oth/un	25°C	0.0	C		*K1=-8.75 *K2=-9.10 *K3=-10.27	1999BPa (10633)	318

Method: solubility of ZnO (zincite) in 0.03 m NaOH.
Data for 25-300 C. Analysis by Pt/H2 electrode and ICP.

Zn++ gl NaClO4 30°C 0.20M U 1999PGa (10634) 319
*K1=-7.89
*B2=-14.80

Zn++ gl NaNO3 30°C 0.20M U 1999PPa (10635) 320
*K1=-7.89
*B2=-14.92

Zn++ gl NaNO3 25°C 0.10M U 1998MSe (10636) 321
*K1=-7.89
*B2=-14.92

Zn++ sol oth/un 25°C 0.10M C IH 1998WBa (10637) 322
*Kso(ZnO)=11.35
Data for 0.03-1.0 m sodium triflate and 50-290 C. At 25 C, I=0, *Kso=11.17
DH(*Kso)=-86.7 kJ mol-1, DS(*Kso)=-77 J K-1 mol-1. *Kso: ZnO(s)+2H=Zn+H2O.

Zn++ gl alc/w 25°C 50% C 1997MGb (10638) 323
*K1=-9.44
*B2=-16.42
Medium: 50% v/v EtOH/H2O, 0.2 M NaNO3.

Zn++ gl NaClO4 30°C 0.10M C K1=7.22 1995STa (10639) 324

Zn++ gl NaClO4 25°C 0.10M M M 1994KTa (10640) 325
K(ZnA+L)=6.00
A:1,4,7,10-Tetraazacyclododecane

Zn++ kin NaClO4 25°C 0.10M M M 1992KKb (10641) 326
K(ZnA+L)=6.4
A:1,5,9-triazacyclododecane

Zn++ gl alc/w 30°C 50% C 1991MCb (10642) 327
*K1=-7.15
*B2=-16.42
Medium: 50% v/v EtOH/H2O, 0.2 M NaNO3.

Zn++ gl NaNO3 37°C 0.10M U 1991MGb (10643) 328
*K1=-7.84
*B2=-14.87

Zn++ gl alc/w 25°C 50% U 1989MSi (10644) 329
*K1=-7.44
*B2=-16.42
Medium: 50% v/v EtOH/H2O, 0.2 M NaNO3.

Zn++ EMF NaClO4 25°C 3.00M U B2=12.22 1988FSa (10645) 330

```
                                        B4=15.40
-------------------------------------------------------------------------------
Zn++       ISE NaClO4 25°C 3.00M C                      1987FGa (10646) 331
                                        B4=15.10
-------------------------------------------------------------------------------
Zn++       gl  NaCl   37°C 0.15M C                      1987HBb (10647) 332
                                        *K1=-8.378
-------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  50%  C                      1987MSd (10648) 333
                                        *K1=-7.44
                                        *B2=-16.42
Medium: 50% v/v dioxane/H2O, 0.2 M NaNO3.
-------------------------------------------------------------------------------
Zn++       gl  none   25°C  0.0  M  I                  1985DHa (10649) 334
                                        K(ZnA(OH)+H)=9.07
A = trien (1,8-diamino-3,6-diazaoctane). In D2O K=-9.74
-------------------------------------------------------------------------------
Zn++       gl  none   25°C  0.0  M  I                  1985DHa (10650) 335
                                        K(ZnA(OH)+H)=10.30
A = 2,3,2-tet. In D2O K=-10.91
-------------------------------------------------------------------------------
Zn++       gl  none   25°C  0.0  M  I                  1985DHa (10651) 336
                                        K(ZnA(OH)+H)=10.59
A = Tren (2,2'2"-nitrilotri(ethylamine)).  In D2O, K=-11.21
-------------------------------------------------------------------------------
Zn++       oth none   25°C  0.0  U       K1=5.04   B2=11.1   1983RCa (10652) 337
                                        B3=13.6
                                        B4=14.8
Recalculation of literature data
-------------------------------------------------------------------------------
Zn++       vlt NaClO4 25°C  3.0M U       K1=6.72   B2=11.52  1983YYa (10653) 338
                                        B3=14.04
                                        B4=16.30
Method: polarography.
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U    M                  1979GMa (10654) 339
                                        *K(Zn(EDDA))=-10.56
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 3.00M U T                    1978BYa (10655) 340
                                        *K1=-10.4
                                        *B(2,1)=-8.72
-------------------------------------------------------------------------------
Zn++       sp  KNO3   25°C 0.10M U  I     K1=6.19   B2=10.90  1978NAa (10656) 341
                                        *K1=-7.85
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 60°C 3.00M U                      1977BGb (10657) 342
                                        *K1=-9.5
                                        *B(2,1)=-7.62
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M C                      1976MTa (10658) 343
```

```
                                        *B2=-14.80
-------------------------------------------------------------------------------
Zn++       sol none   100°C  0.0  U T                    1975KEa (10659) 344
                                        *Ks(ZnO(s)+H)=3.19
                                        K(ZnO+2H2O+2OH=Zn(OH)4+2H)=-2
                                        K(ZnO+2H2O+OH=Zn(OH)3+2H)=-3.0
-------------------------------------------------------------------------------
Zn++       sol oth/un 25°C    ?  U T      K1=6.16   B2=11.18  1975RMb (10660) 345
                                        B3=13.88,    B4=15.57
                                        K(Zn(OH)2(s)+OH=Zn(OH)3)=-2.88
                                        K(Zn(OH)2(s)+2OH=Zn(OH)4)=-1.9
At 12.5 C: Kso(Zn(OH)2)=-16.8. Data up to 75 C
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 3.00M U                      1975ZGa (10661) 346
                                        *B(4,4)=-26.0
                                        *B(2,1)=-8.6
-------------------------------------------------------------------------------
Zn++       gl  NaCl   25°C 0.70M U                      1974JAb (10662) 347
                                        *K1=-9.60
                                        *B(1,3)=-27.6
Medium: seawater
-------------------------------------------------------------------------------
Zn++       vlt none   20°C 0.00  U        B2=9.86       1973BRd (10663) 348
-------------------------------------------------------------------------------
Zn++       ISE none   25°C 0.00  U                      1972DSb (10664) 349
                                        Kso(Zn(OH)2(s)=Zn+2OH)=-16.42
Zn(OH)2=epsilon-Zn(OH)2. Method: emf with Zn amalgam electrode
-------------------------------------------------------------------------------
Zn++       oth NaCl   20°C 0.15M U                      1971PPd (10665) 350
                                        *Ks=8.2
                                        Ks(Zn(OH)2+2OH=Zn(OH)4)=-28.6
*Ks: Zn(OH)2(s)+2H=Zn+2H2O. Method: tyndallometry
-------------------------------------------------------------------------------
Zn++       gl  KNO3   37°C 0.15M U                      1970CHc (10666) 351
                                        *K1=-9.03
-------------------------------------------------------------------------------
Zn++       gl  oth/un 40°C       U T H                  1969NIa (10667) 352
                                        *K1=-9.6
                                        *B(2,1)=-8.0
Medium: Zn(NO3)2. DH(*K1)=71.7 kJ mol-1.  At 50 C, *K1=-9.4, *B(2,1)=-7.9.
60 C, *K1=-8.7, *B(2,1)=-7.8.  70 C, *K1=-8.6, *B(2,1)=-7.6
-------------------------------------------------------------------------------
Zn++       gl  oth/un 80°C       U T                    1969NIa (10668) 353
                                        *K1=-8.3
                                        *B(2,1)=-7.4
Medium: Zn(NO3)2. 90 C, *K1=-7.9, *B(2,1)=-7.1
-------------------------------------------------------------------------------
Zn++       sol NaClO4 25°C 1.00M U                      1968GSd (10669) 354
                                        Kso=-16.76
-------------------------------------------------------------------------------
```

```
Zn++       ISE none   25°C  0.0  M                        1968SMf (10670) 355
                                      Kso(Zn(OH)2(H2O)0.1)=-17.33
--------------------------------------------------------------------------------
Zn++       sol NaClO4 25°C 1.00M U       K1=6.31   B2=11.19  1967GSd (10671) 356
                                      B3=14.31
                                      B4=17.70
                                      Kso=-16.76
--------------------------------------------------------------------------------
Zn++       gl  NaCl   25°C 3.00M U  I                     1965SCc (10672) 357
                                      *K1=-9.25
                                      *B(2,1)=-7.50
In 3 M KCl: *K1=-9.26, *B(2,1)=-7.47, *B(4,2)=-13.32 ?
--------------------------------------------------------------------------------
Zn++       dis NaClO4 25°C 3.00M U                       1965SEb (10673) 358
                                      *B2=-20.10
                                      *B3=-28.83
                                      *B4=-38.72
--------------------------------------------------------------------------------
Zn++       oth KNO3   25°C 0.20M U  I                    1964SAa (10674) 359
                                      *Kso=12.48(amorphous)
                                      *Kso=11.80(beta 2)
                                      *Kso=11.85(delta)
                                      *Kso=11.34(active ZnO)
*Kso=11.17(inactive ZnO) plus other forms, and corrected to I=0
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 2.00M U  I                    1964SCb (10675) 360
                                      *K1=-9.01
                                      *B(2,1)=-7.20
In 2 M NaCl: *K1=-9.11, *B(2,1)=-7.49
--------------------------------------------------------------------------------
Zn++       oth NaCl   25°C 3.00M U                       1964SCb (10676) 361
                                      B4=13.35
                                      B(2,6)=26.77
--------------------------------------------------------------------------------
Zn++       sol KNO3   25°C 0.20M U                       1963PEa (10677) 362
                                      *Kso=11.72 (epsilon-Zn(OH)2)
*Kso: Zn(OH)2(s)+2H=Zn+2H2O
--------------------------------------------------------------------------------
Zn++       sol NaClO4 25°C 0.20M U                       1963SAa (10678) 363
                                      *Kso=11.39 to 11.55 (ZnO)
                                      *Kso=11.97o(beta-Zn(OH)2)
                                      *Kso=11.95 (gamma-Zn(OH)2)
                                      *Kso=11.75 (epsilon-Zn(OH)2)
*Kso: ZnO(s)+2H=Zn+H2O; *Kso: Zn(OH)2(s)+2H=Zn+2H2O
--------------------------------------------------------------------------------
Zn++       dis NaClO4 20°C 0.10M U                       1962BOa (10679) 364
                                      B3=13.58
Method: also glass electrode
--------------------------------------------------------------------------------
Zn++       cal NaClO4 25°C  7.0M U                       1962LGa (10680) 365
```

Medium: 7 M NaClO4, 0.88 M HClO4; DH(*Kso(Zn(OH)2(s))=-75.3 kJ mol-1

Zn++ gl none 25°C 0.0 U T 1962PEb (10681) 366
*K1=-8.96
*K1=-9.30(15 C), -9.15(20 C), -8.79(30 C), -8.62(36 C), -8.46(42 C);

Zn++ gl KNO3 25°C 0.20M U I 1962SAc (10682) 367
*Kso(Zn(OH)2+2H)=-11.75
Kso(Zn(OH)2(s))=-15.65
Epsilon-Zn(OH)2. At I=0 Kso=-16.5

Zn++ gl KCl 25°C 2.0M U I 1961SCa (10683) 368
*K1=-9.02
*B(2,1)=-7.18
Mixed Cl,OH complexes. In 2 M NaCl *K1=-9.14, K(2Zn+H2O=Zn2OH+H)=-7.47

Zn++ gl NaClO4 25°C 2.0M U 1961SCa (10684) 369
*B2=-9.55
B(Zn+Cl=Zn(OH)2Cl+2H)=-9.14
B(Zn+2Cl=Zn(OH)2Cl2+2H)=-8.97
B(Zn+3Cl=Zn(OH)2Cl3+2H)=-8.83

Zn++ gl none 25°C 0.0 U 1960BBa (10685) 370
Kso=-17.05 (ZnO,zincite)
Kso: ZnO(s)+H2O=Zn+2OH

Zn++ gl none 25°C 0.0 U 1960DFa (10686) 371
*K1=-9.05

Zn++ sol oth/un 18°C dil U B2=12.89 1959ASa (10687) 372
K(Zn(OH)2(s)=Zn(OH)2)=-4.51

Zn++ gl none ? 0.0 U 1959BEa (10688) 373
*K1=-9.29

Zn++ vlt KCl 25°C 2.0M U 1959MAc (10689) 374
B4=15.3

Zn++ gl none 25°C 0.0 U 1958ACa (10690) 375
*K1=-9.36

Zn++ gl none 25°C 0.0 U 1958ASd (10691) 376
Kso(Zn(OH)2)=-17.4

Zn++ vlt oth/un 24°C var U 1958COb (10692) 377
Kso=-15.5 (Zn(OH)2 amorphous)
Kso=-16.5 (ZnO)
Kso: Zn(OH)2(s)=Zn+2OH and ZnO(s)+H2O=Zn+2OH

Zn++ ISE none 25°C 0.0 U 1954DIa (10693) 378

```
                                        B4=15.15
-------------------------------------------------------------------------------
Zn++       gl  none   75°C  0.0  U                        1954DOa (10694) 379
                                        Kso(Zn(OH)2)=-17.0
-------------------------------------------------------------------------------
Zn++       sol none   25°C  0.0  U                        1954DPb (10695) 380
                                        K(Zn(OH)2(s)+OH)=-3.22
                                        K(Zn(OH)2(s)+2OH)=-2.00
-------------------------------------------------------------------------------
Zn++       sol none   25°C  0.0  U                        1954DPb (10696) 381
                                        K(Zn(OH)2(s)+OH)=-3.22
                                        K(Zn(OH)2(s)+2OH)=-2.22?
-------------------------------------------------------------------------------
Zn++       sol none   25°C  0.0  U                        1954FSb (10697) 382
                                        Kso(Zn(OH)2)=-17.15
                                        B3=14.23
                                        K4=1.26
                                        K(Zn(OH)2(s)+OH)=-2.92
K(Zn(OH)2(s)+2OH)=-1.66
-------------------------------------------------------------------------------
Zn++       cal oth/un 18°C 0.25M U   H                     1953SLa (10698) 383
DH(*Kso(Zn(OH)2(s)+2H)=-81.5 to -83.2 kJ mol-1
-------------------------------------------------------------------------------
Zn++       cal oth/un 25°C  2.0M U   H                     1953SLa (10699) 384
DH(*Kso(ZnO(s)+2H))=-88.7 kJ M-1(in HClO4), -66.0(HCl), -75.0(HBr),-87.6(HI)
DH(*Kso(Zn(OH)2(s)+2H)=-80(HClO4), -81(HNO3), -58(HCl), -67(HBr), -79(HI)
-------------------------------------------------------------------------------
Zn++       gl  oth/un   ?   var  U        K1=5.7          1953SPd (10700) 385
                                        Kso(Zn(OH)2)=-16.4
-------------------------------------------------------------------------------
Zn++       vlt oth/un 18°C  var  U                        1953VTa (10701) 386
                                        B3=15.5
                                        *Kso=-17.19
-------------------------------------------------------------------------------
Zn++       gl  KCl    30°C 0.10M U                        1952CCa (10702) 387
                                        *K1=-8.7
-------------------------------------------------------------------------------
Zn++       sp  oth/un 25°C  var  U        K1=4.40         1951DAa (10703) 388
-------------------------------------------------------------------------------
Zn++       ISE oth/un 18°C  var  U                        1951STa (10704) 389
                                        B4=14.47
-------------------------------------------------------------------------------
Zn++       EMF none   18°C  0.0  U                        1950AFa (10705) 390
                                        Kso(Zn(OH)2)=-16.71
Method: H and quinhydrone electrodes
-------------------------------------------------------------------------------
Zn++       ISE oth/un 20°C  var  U                        1950BQa (10706) 391
                                        B3=16.08
                                        B4=15.04
-------------------------------------------------------------------------------
```

```
Zn++       vlt oth/un  0°C  var  U T                    1949KKa (10707) 392
                                    B3=16.84
                                    K4=0.07
B3=15.86, K4=0.09(20 C); B3=15.45, K4=0.10(30 C)
-------------------------------------------------------------------------
Zn++       gl  oth/un 16°C  var  U       K1=3.80        1940BCa (10708) 393
                                    *K1=-10.48
-------------------------------------------------------------------------
Zn++       vlt oth/un 18°C  var  U                    1940SFa (10709) 394
                                    B4=16.89
-------------------------------------------------------------------------
Zn++       gl  none   25°C  0.0  U                    1939HAa (10710) 395
                                    *K1=-10.19
                                    Kso(Zn(OH)2(s))=-15.47
-------------------------------------------------------------------------
Zn++       gl  none   25°C  0.0  U                    1938OKa (10711) 396
                                    Kso(Zn(OH)2(s))=-15.74
-------------------------------------------------------------------------
Zn++       dis oth/un 20°C  var  U       K1=5.77        1933JEa (10712) 397
-------------------------------------------------------------------------
Zn++       EMF none   25°C  0.0  U       K1=4.36        1931KKa (10713) 398
                                    *K1=-9.66
                                    Kso(Zn(OH)2(s))=-18 to-17
-------------------------------------------------------------------------
Zn++       EMF none   25°C  0.0  U                    1931PRa (10714) 399
                                    *K1=-9.82
                                    *Kso(Zn(OH)2(s)+2H)=10.62
                                    Kso(Zn(OH)2(s))=-16.89
-------------------------------------------------------------------------
Zn++       sol none   25°C  0.0  U                    1927DJa (10715) 400
                                    Kso(Zn(OH)2(s))=-16.48
                                    B4=15.44
-------------------------------------------------------------------------
Zn++       sol oth/un 25°C  var  U                    1925WIa (10716) 401
                                    Kso(Zn(OH)2(s))=-16.13
-------------------------------------------------------------------------
Zn++       vlt oth/un 18°C  var  U                    1923HEa (10717) 402
                                    Kso(Zn(OH)2(s))=-16.0
                                    B3=14.36?
-------------------------------------------------------------------------
Zn++       kin oth/un 100°C 0.02M U      K1=4.51      1913KUa (10718) 403
                                    *K1=-7.87
-------------------------------------------------------------------------
Zn++       sol oth/un   ?   var  U                    1912KLa (10719) 404
                                    K(Zn(OH)2(s)+2OH=Zn(OH)4)=-1.0
-------------------------------------------------------------------------
Zn++       EMF oth/un 25°C  var  U       K1=8.84        1910WOa (10720) 405
                                    *K1=-5.08
-------------------------------------------------------------------------
Zn++       ISE oth/un ?18   var  U                    1904KUa (10721) 406
```

B4=12.40

Zn++ sol oth/un rt var U 1900HEa (10722) 407
Kso(Zn(OH)2)=-13.15

****

PO3F-- H2L CAS 13537-32-1 (6520)
Monofluorophosphate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	37°C	0.10M	C		K1=2.86	1991CCa (12772)	408

****

PO4--- H3L Phosphate CAS 7664-38-2 (176)
Phosphate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	M			1996SSa (12976)	409
							K(Zn+HL)=2.52		
Zn++	vlt	oth/un	?	var	C			1995VPa (12977)	410
							K1eff=4.16		
							B2eff=7.36		

pH=7.9 of Pisuerga river water. Ionic strength ranged from 0.01 M to 0.75M.
Method: Anodic Stripping Voltammetry.

Zn++	EMF	none	25°C	0	M	I		1994IUb (12978)	411
							K(Zn+H2PO4)=0.9		
							K(Zn+2H2PO4)=2.0		
							K(Zn+HPO4+H2PO4)=4.0		
							K(Zn+2HPO4)=7.1		

Method: Zn/Hg electrode. K(Zn+PO4+HPO4)=12.5. In 3 M NaClO4:K(Zn+H2PO4)=0.37
K(Zn+2H2PO4)=1.10,K(Zn+2H2PO4=ZnH3(PO4)2+H)=-3.8,K(..+2H)=-7.11,(+3H)=-12.87

Zn++	sol	oth/un	25°C	var	C	TIH		1992ZJa (12979)	412
							K(ZnO(s)+HPO4)=-5.82		
							K'(NaZnPO4(s)+HPO4)=-12.91		
							K(Zn(OH)2+HPO4)=0.91		
							K(Zn(OH)3+H2PO4)=5.37		

Medium:0.0005-0.05 m phosphate. Data for 17-287 C. *K3=-10.14, *K4=-12.02.
K:ZnO+H2O+HPO4=Zn(OH)2(HPO4), K':NaZnPO4+2H2O+HPO4=Na+Zn(OH)2(HPO4)+H2PO4.

Zn++	gl	NaNO3	25°C	0.10M	C			1981BKb (12980)	413
							K(Zn+HPO4)=2.4		

Zn++	gl	NaClO4	25°C	0.10M	U	M	K1=2.40	1974RMa (12981)	414

Mixed complexes with cysteine, citrate and NTA

Zn++	gl	NaClO4	25°C	0.10M	U	M		1974RMb (12982)	415
							K(Zn+HL)=2.40		

```
                                        K(ZnFulvate+HL)=5.20
                                        K(Zn+Fulvate+HL)=6.90
--------------------------------------------------------------------------------
Zn++       sol none   25°C  0.0  U                        1973NRa (12983) 416
Kso(Zn3L2(H2O)4)=-35.29(alpha-hopeite)
--------------------------------------------------------------------------------
Zn++       gl  KNO3   37°C 0.15M U                        1970CHc (12984) 417
                                        K(Zn+H2L)=1.2
                                        K(Zn+HL)=2.4
                                        K(ZnH2L+HL)=3.0
                                        K(2ZnHL=(ZnHL)2)=3.7
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U  I M                   1967SBc (12985) 418
                                        K(Zn+HL)=2.4
In 10% dioxan, 0.1 M NaClO4: K(Zn+HL)=2.4, K(Zn+bpy+HL)=2.4
--------------------------------------------------------------------------------
Zn++       sol oth/un 19°C  var  U                        1951ZHa (12986) 419
                                        Kso(Zn3L2)=-32.04
********************************************************************************
PW11O39-------        H7L                          (2467)
alpha-Heteromonophospho-polytungstate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 1.00M U        K1=5.39        1984COa (13395) 420
********************************************************************************
P2O7----              H4L    Pyrophosphate    CAS 2466-09-3  (198)
Diphosphate; from (HO)2PO.O.PO(OH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.50M C        K1=4.09   B2= 4.81  1979DHa (13512) 421
                                        K(Zn+HL=ZnL+H)=-4.30
                                        K(Zn+2HL=ZnL2+2H)=-12.10
                                        K(ZnL+HL=ZnL2+H)=-7.7
Medium: 0.50 M Me4NCl. Kso(Zn2P2O7.3H2O)=-15.6.
--------------------------------------------------------------------------------
Zn++       kin R4N.X  30°C 0.10M U        K1=9.11        1978KHa (13513) 422
--------------------------------------------------------------------------------
Zn++       sol NaNO3  18°C 0.50M U  I     B2=5.40        1973VMa (13514) 423
B2=4.80(I=0.75), 4.29(I=1), 6.48(I=0 corr)
--------------------------------------------------------------------------------
Zn++       vlt NaNO3  25°C  1.0M U        K1=5.1    B2=7.19   1968CFd (13515) 424
Zn/Hg electrode also used
--------------------------------------------------------------------------------
Zn++       ISE NaClO4 25°C  1.0M U  I     K1=10.52       1967MNe (13516) 425
Method: Zn/Hg electrode. K1=11.66(I=0.1), 12.80(I=0) and intermediate values
--------------------------------------------------------------------------------
Zn++       gl  none   25°C  0.0  U T      K1=8.7    B2=11.0   1959WOa (13517) 426
                                        B(Zn(OH)L)=13.1
```

Additional by Zn electrode. At 40 C: K1=9.2, B2=10.8, B(Zn(OH)L)=13.3

Zn++ sol oth/un 25°C var U K1=6.10 B2=7.09 1958PTa (13518) 427
Medium: Na4L

Zn++ ISE oth/un 42°C var U B2=6.5 1958VRb (13519) 428

Zn++ cal oth/un 25°C var U H 1956YVb (13520) 429
DH(B2)=11.0 kJ mol-1, DS=161 J K-1 mol-1

Zn++ ISE oth/un 18°C var U B2=7.24 1951STa (13521) 430

Zn++ con oth/un 35°C var U B2=6.50 1950HAa (13522) 431

Zn++ vlt oth/un ? var U K1=6.45 1932SAa (13523) 432

****

P2O8---- H4L CAS 13825-81-5 (2402)
Peroxodiphosphate, also cyclic metaposphates, thiophosphates etc.;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ ix NaClO4 20°C 0.23M U 1974KOa (13683) 433
Ligand:metaphosphates, cyclic, (PO3)n n-, K1=2.86(n=4), 3.95(n=6), 5.02(n=8)

****

P2W17O61---------- Polytungstate (2102)
alpha-Heterodiphospho-polytungstate (usually alpha1 isomer)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl NaNO3 25°C 1.00M U K1=7.30 1984COa (13703) 434
K1=5.89 (alpha2 isomer)

****

P3O10----- H5L CAS 10380-08-2 (1001)
Tripolyphosphate; from (HO)2PO.O.PO(OH).O.PO(OH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ kin oth/un 30°C 0.10M U K1=8.90 1978KHa (13788) 435

Zn++ gl KNO3 25°C 0.10M U T H K1=6.83 1973TRa (13789) 436
K(Zn+HL)=3.75
At 2 C: K1=7.43, K(Zn+HL)=4.05; 35 C: K1=7.40,K=4.14; 45 C: K1=6.72
DH(K1)=-18.4, DH(Zn+HL)=-5.9 kJ mol-1 (25C)

Zn++ gl KNO3 45°C 0.10M U K1=6.71 B2=7.31 1971TRa (13790) 437
K(Zn+HL)=3.73
K(ZnL+HL)=1.5
K(ZnL2+H)=9.03

Zn++ gl R4N.X 20°C 0.10M U H K1=8.35 1965ANa (13791) 438

K(Zn+HL)=5.13
K(ZnL+H)=5.6
Medium: Me4NNO3. By calorimetry: DH(K1)=26.4 kJ mol-1, DS=250 J K-1 mol-1

Zn++ gl KCl 25°C 0.10M U K1=7.62 1964EMb (13792) 439
K(Zn+HL)=3.92
K(ZnL+H)=4.36

Zn++ gl NaNO3 25°C 0.10M U K1=6.9 1963JWa (13793) 440
K(ZnL+H)=5.3

Zn++ gl none 25°C 0.0 U T K1=9.7 1959WOa (13794) 441
B(Zn(OH)L)=13.0
Method: also Zn electrode. At 40 C: K1=9.7, B(Zn(OH)L)=12.8

****

P3O9--- H3L CAS 13566-25-1 (235)
Cyclotrimetaphosphate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	ix	NaClO4	20°C	0.23M	U		K1=1.94	1974KOa	(13933) 442

****

P4O12---- H4L CAS 13598-74-8 (234)
Cyclotetrametaphosphate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	ix	NaClO4	20°C	0.23M	U		K1=1.94	1974KOa	(13985) 443

****

P4O13------ H6L Tetraphosphate (1102)
Tetraphosphate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	kin	oth/un	30°C	0.10M	U		K1=8.75	1978KHa	(14035) 444

****

P6O18------ H6L (233)
Cyclohexametaphosphate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	ix	NaClO4	20°C	0.23M	U		K1=3.95	1974KOa	(14066) 445

****

P8O24-------- H8L (232)
Cyclooctametaphosphate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	ix	NaClO4	20°C	0.23M	U		K1=5.02	1974KOa	(14078) 446

****

S-- H2L Sulfide CAS 7783-06-4 (705)
Sulfide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	oth/un	25°C	0.72M	C		K(Zn+HL)=6.1 K(Zn+2HL)=10.2	1999AVb (14210)	447

Method: determination of Zn by cathodic stripping voltammetry using oxine as competitive ligand. Medium: seawater, pH 8.0, S=35.

Zn++	vlt	NaClO4	24°C	0.50M	C	I	K1=8.31	1999CRb (14211)	448

Ligand is S5--. Method: polarography. Also data for 0.55 M NaCl.

Zn++	vlt	oth/un	25°C	0.70M	C	I	K(Zn+HS+OH=ZnS)=11.74 K(2Zn+3HS+3OH=Zn2S3)=41.09	1996LRb (14212)	449

Method: by voltammetry at Hg/HgS electrode

Zn++	vlt	NaCl	25°C	?	U		K1eff=6.0 K2eff=7.7	1994ZMa (14213)	450

Medium: sea water, pH=8. Method: cathodic stripping square wave voltammetry

Zn++	sol	oth/un	25°C	var	U	I	K(ZnS(s)+H2S=Zn+2HS)=-18.47 K(ZnS(s)+H2S=Zn(HS)2)=-5.65 K(ZnS(s)+2HS=ZnS(HS)2)=-5.33 K(ZnS(s)+H2S+2HS=Zn(HS)4)=-3.8	1993DHa (14214)	451

K(ZnS(s)+HS=ZnS(HS))=-4.64. Constants valid at infinite dilution

Zn++	oth	none	?	0	U		*Ks(ZnS+H=Zn+HS)=-10.9 (alpha) *Ks(ZnS+H=Zn+HS)=-8.95 (beta)	1990DKa (14215)	452

Alpha is sphalerite; beta is wurtzite. Recalculation of literature data.

Zn++	sol	oth/un	25°C	0.10M	U	TI	Ks(ZnS+H2S)=-5.3 Ks(ZnS+H2S+HS)=-3.3 Ks(ZnS+H2S+2HS)=-3.4 Ks(ZnS+H20+HS-)=-4.4	1990HSc (14216)	453

Ks(ZnS+H2O+2HS)=-4.9 (sphalerite). 25-240 C. Constants valid at I=0

Zn++	oth	none	25°C	0.0	C		KZn+HS=ZnS+H)=4.9 *Kso(ZnS)=-9.6 Kso(ZnS)=-4.7	1989DYa (14217)	454

Calculated from literature data, based on K(H+S)=17.0. ZnS is wurtzite. For sphalerite, *Kso(ZnS)=-11.8, Kso(ZnS)=-6.9.

```
Zn++       oth none   25°C    0  U                        1988LIa (14218) 455
                                        Kso(ZnS,sphalerite)=-28.9
                                        *Kso(ZnS,sphalerite)=-11.5
                                        Kso(ZnS,wurtzite)=-26.1
                                        *Kso(ZnS,wurtzite)=-8.7
Derived from thermodynamic data and K(H+S=HS)=17.3.
-------------------------------------------------------------------------------
Zn++       oth none   25°C    0  U                        1988SBc (14219) 456
                                        Kso(ZnS,wurtzite)=-28.21
                                        Kso(ZnS,sphalerite)=-30.32
Method: recalc. from literature data using K(H+S=HS)=18.57 and K(H+HS)=6.99
-------------------------------------------------------------------------------
Zn++       sol oth/un 100°C  var  M TIH                  1987BBe (14220) 457
                                        K(Zn+2HS)=12.3
                                        K(Zn+3HS)=14.2
                                        K(Zn+4HS)=13.0
                                        K(Zn+OH+HS)=16.7
Sphalerite (ZnS) solubility in 0-4.0 m NaHS-H2S solution. Data 100-350 C.
DH(Zn+2HS)=-5.0 kJ m-1, DH(Zn+3HS)=-4.2, DH(Zn+4HS)=1.7,DH(Zn+OH+HS)=-14.2
-------------------------------------------------------------------------------
Zn++       sol oth/un 100°C  var  M TI                   1987BBe (14221) 458
                                        K(ZnS(s)+H2O=Zn(OH)HS)=-6.4
                                        K(ZnS(s)+H2S=Zn(HS)2)=-5.2
                                        K(ZnS(s)+H2S+HS=Zn(HS)3)=-3.3
                                        K(ZnS(s)+H2S+2HS=Zn(HS)4)=-4.6
Sphalerite (ZnS) solubility in 0-4.0 m NaHS-H2S solution. Data 100-350 C.
-------------------------------------------------------------------------------
Zn++       ISE NaCl   24°C 0.10M M                      1987PFb (14222) 459
                                        Kso(alpha-ZnS)=-24.1
Method: pH2S measured with Ag2S electrode.  K(H+S=HS)=13.9 and K(H+HS=H2S)=
6.92 assumed
-------------------------------------------------------------------------------
Zn++       dis oth/un 25°C 0.69M U                       1985DYa (14223) 460
                                        K(Zn+2H2S=ZnHS2+3H)=-5.55
                                        K(Zn+2H2S=Zn(HS)2+2H)=0.72
-------------------------------------------------------------------------------
Zn++       vlt oth/un 25°C  var  U                       1970CLa (14224) 461
                                        Kso=-21.4
-------------------------------------------------------------------------------
Zn++       oth none   50°C  0.0  M T                    1969HEa (14225) 462
Estimated from literature data. Sphalerite: Kso=-24.44(50 C); -22.48(100 C);
-19.81(200 C); -18.17(300 C). Wurzite:-22.58(50 C);-20.96(100 C);-17.39(300)
-------------------------------------------------------------------------------
Zn++       sol NaClO4 25°C  1.0M U                       1967GSc (14226) 463
                                        K(ZnS(s)+H2O=Zn(HS)OH)=-5.87
                                        Kso=-24.37
                                        K(Zn+OH+HS)=19.02
-------------------------------------------------------------------------------
Zn++       oth none   25°C  0.0  U                       1964PCa (14227) 464
                                        K(ZnL(s)+2H=Zn+H2S(g))=-0.82
```

From thermodynamic data. ZnL=wurtzite. Alternative values K=-2.69, 2.0

Zn++ sol oth/un 100°C 1.60M U 1960BAa (14228) 465

K(ZnS(s)+HS=ZnHS2)=-3.0

Medium: NaOH. 25-195 C

Zn++ oth none 25°C 0.0 U T 1959CZa (14229) 466

Kso(ZnL)=-23.82

From thermodynamic data. Kso=-20.92(100 C), -18.48(200 C), -15.82(400 C), -14.34(600 C)

Zn++ oth none 25°C 0.0 U 1952GGc (14230) 467

Kso(ZnL,sphalerite)=-24.10

From thermodynamic data

Zn++ oth none 25°C 0.0 U 1952LAb (14231) 468

Kso(ZnL,sphalerite)=-25.15

Kso(ZnL,wurtzite)=-22.80

From thermodynamic data

Zn++ sol none 25°C 0.0 U 1936RAa (14232) 469

Kso(ZnL)=-25.94

K(ZnL(s)+2H=Zn+H2S(g))=-3.02

From thermodynamic data Kso(ZnL)=-22.2

Zn++ sol oth/un 18°C var U 1931KOa (14233) 470

Kso(ZnL)=-25.10

K(ZnL(s)+2H=Zn+H2S(g))=-2.14

Alternative values: Kso=-25.3(sphalerite), K=-2.35; Kso=-23.96(wurtzite), K=-1.0. By solubility, 1 M H2SO4: Kso=-25.16, K=2.2(sphalerite)

Zn++ sol oth/un 25°C var U 1907GLa (14234) 471

K(ZnL(s)+2H=Zn+H2S(g))=-2.67

ZnS=sphalerite. K=-1.35(wurtzite)

****

SCN- HL Thiocyanate CAS 463-56-9 (106)

Thiocyanate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	EMF	non-aq	25°C	100%	C	HM		2001KTa (14584)	472
							B(Zn(phen)SCN)=9.4		
							B(Zn(phen)(SCN)2)=12.5		
							B(Zn(phen)2(SCN)2)=15.6		

Medium: DMF, 0.40 M Et4NClO4. Method: Zn/Hg electrode. By calorimetry, DH(Zn(phen)SCN)=-24, DH(Zn(phen)(SCN)2)=-25, DH(Zn(phen)2(SCN)2)=-70

Zn++ gl NaClO4 25°C 0.10M M M 1994KTa (14585) 473

K(ZnA+L)=2.2

A:1,4,7,10-Tetraazacyclododecane. By kinetic methods, K=1.8

```
-------------------------------------------------------------------------------
Zn++       kin NaClO4 25°C 0.10M M    M                  1992KKb (14586) 474
                                        K(ZnA+L)=2.4
A:1,5,9-triazacyclododecane
-------------------------------------------------------------------------------
Zn++       cal non-aq 25°C 100%  U   HM T K1=3.33        1990IMa (14587) 475
                                        B3=10.23
                                        B(Zn(bpy)L)=7.3
                                        B(Zn(bpy)2L)=9.8
                                        B(Zn(bpy)L2)=10.6
In DMF, 0.1 M Et4NClO4. B4=13.31, B(Zn(bpy)2L2)=12.3. DH(K1)=4.9, DH(B3)=9.5
DH(B4)=-7.9, DH(Zn(bpy)L)=-13.0, DH(Zn(bpy)2L)=-42.9, DH(Zn(bpy)L2)=-17.5
-------------------------------------------------------------------------------
Zn++       ISE NaClO4 25°C  1.0M C        K1=0.72   B2= 1.86  1989LWe (14588) 476
Method: SCN ion-selective electrode.
-------------------------------------------------------------------------------
Zn++       ISE alc/w  25°C 100%  U      T K1=4.31   B2=7      1987DWb (14589) 477
Medium: MeOH, 0.05 M NaClO4
-------------------------------------------------------------------------------
Zn++       cal NaClO4 25°C 5.00M U   H  T K1=0.917  B2=1.590  1985IYa (14590) 478
                                        B3=2.167
                                        B4=2.514
DH(K1)=-5.0, DH(B2)=2.9, DH(B3)=-6.3 and DH(B4)=-4.4 kJ mol-1.
DS(K1)=1, DS(B2)=23, DS(B3)=-6.3 and DS(B4)=-8 J K-1 mol-1.
-------------------------------------------------------------------------------
Zn++       cal NaClO4 25°C 5.00M C   H  T K1=0.917  B2=1.59   1985IYb (14591) 479
                                        K3=0.577
                                        K4=0.347
DH(K1)=-5.0 kJ mol-1, DH(K2)=2.9, DH(K3)=-6.3, DH(K4)=-4.4
DS(K1)=1 J K-1 mol-1, DS(K2)=23, DS(K3)=-10, DS(K4)=-8
-------------------------------------------------------------------------------
Zn++       ISE alc/w  25°C 100%  U      T K1=5.24   B2=8.83   1983DSa (14592) 480
                                        K3=3.02
                                        K4=2.11
Medium: MeOH
-------------------------------------------------------------------------------
Zn++       sp  oth/un 25°C    ?  U        K1=0.70   B2=1.87   1982JJa (14593) 481
                                        B3=1.60
                                        B4=2.07
-------------------------------------------------------------------------------
Zn++       ISE non-aq 25°C 100%  C      T K1=3.26        1982SSd (14594) 482
Medium: dimethylacetamide
-------------------------------------------------------------------------------
Zn++       vlt NaNO3  25°C  2.0M C        K1=0.48   B2= 0.60  1980KJb (14595) 483
                                        B3=1.0
Method: polarography.
-------------------------------------------------------------------------------
Zn++       ISE non-aq 25°C 100%  U      T K1=1.95   B2=4.00   1979LTb (14596) 484
                                        B3=6.48
                                        B4=8.62
```

B5=8.60

Medium: DMF. Method: Zn electrode

Zn++ sp NaClO4 25°C 1.0M C K1=1.7 1978YOa (14597) 485

Zn++ ISE non-aq 25°C 100% C K1=1.38 B2= 2.80 1976ABg (14598) 486
K3=2.40
K4=1.65

Medium:1 M NH4ClO4 in DMSO
Zn(Hg)-electrode

Zn++ vlt KNO3 25°C 0.50M C I K1=0.60 B2= 1.58 1975ABd (14599) 487
B4=2.71

Method: polarography. Also data for 10-30% EtOH/H2O, 0.5-1.0 M KNO3.
At I=1.0 M, K1=0.78, B2=0.78, B4=1.59.

Zn++ cal none 25°C 0.0 U H 1974RBb (14600) 488

DH(K1)=-8.58 kJ mol-1, DS=-3.3 J K-1 mol-1; DH(K2)=-9.20, DS=5.7;
DH(K3)=-31.6, DS=-67.78

Zn++ kin NaClO4 25°C 1.0M U T K1=0.41 1973HHb (14601) 489

Zn++ ISE none 25°C 0.0 U K1=1.33 B2=1.91 1973RSc (14602) 490
B3=2.00
B4=1.63

Method: Zn amalgam electrode

Zn++ ISE non-aq 25°C 100% U T K1=3.57 B2=4.04 1973SLd (14603) 491
B3=5.57

Medium: DMSO, 1 M LiClO4. Method: Zn amalgam electrode

Zn++ cal NaClO4 25°C 1.0M U H T K1=0.71 B2=1.0 1971AKb (14604) 492
B3=1.2
B4=1.5

DH(K1)=-5.86 kJ mol-1, DS=-5.9 J K-1 mol-1; DH(B2)=-1.7, DS=0; DH(B3)=-0.8,
DS=0,DH(B4)=-7.5, DS=-18.8. Method:also Zn amalgam electrode

Zn++ EMF none 25°C 0.0 U T H K1=1.49 1971DDb (14605) 493

DH(K1)=-11.3 kJ mol-1. K1=1.42(35 C), 1.37(45 C)

Zn++ vlt NaClO4 25°C 2.0M U I K1=0.34 B2=1.37 1971MOa (14606) 494
B4=1.72

In 2 M KNO3: K1=0.53, B2=0.98, B4=1.33

Zn++ dis NaClO4 25°C 1.0M U T K1=0.56 B2=1.32 1971MSa (14607) 495
B3=1.18

Zn++ ISE NaClO4 25°C 2.0M U T K1=0.74 B2=1.15 1970NAa (14608) 496
B3=1.30
B4=1.68

```
--------------------------------------------------------------------------------
Zn++       kin NaClO4 25°C 0.25M U        K1=1.5         1969SUa (14609) 497
--------------------------------------------------------------------------------
Zn++       ix  oth/un   ?   0.0  U        K1=1.57   B2=1.56   1968NPc (14610) 498
                                         B3=1.51
                                         B4=3.02
--------------------------------------------------------------------------------
Zn++       EMF oth/un 35°C  0.0  U        K1=1.42        1968PRd (14611) 499
--------------------------------------------------------------------------------
Zn++       cal oth/un 25°C  0.0  U   H    K1=1.85        1967NTa (14612) 500
Medium: 0 corr. DH(K1)=0.8 kJ mol-1, DS=38.4 J K-1 mol-1
--------------------------------------------------------------------------------
Zn++       ISE NaClO4 25°C  4.0M U    M T K1=1.11   B2=1.81   1966MKa (14613) 501
                                         K(Na+ZnL3)=-1.98
                                         K(K+ZnL3)=-1.38
                                         K(M+ZnL3)=-1.24(M=Rb and NH4)
                                         K(Cs+ZnL3)=-0.74
Medium: LiClO4. K(Na+ZnL4)=-1.28, -0.77(K), -0.64(Rb and NH4), -0.14(Cs)
B3=2.81, B4=2.80
--------------------------------------------------------------------------------
Zn++       vlt oth/un   ?   var  U        K1=0.73   B2=1.1    1966SSa (14614) 502
                                         B3=0.7
                                         B4=1.6
--------------------------------------------------------------------------------
Zn++       oth oth/un   ?   var  U        K1=0.91        1962FLa (14615) 503
Method: ir
--------------------------------------------------------------------------------
Zn++       dis NaClO4 20°C  1.0M U        K1=-0.3?  B2=0.8    1960TDa (14616) 504
                                         B3=0.3?
                                         B4=0.9
                                         Kd=3.7
Kd: K(Zn+2L=ZnL2(in methyl-isobutyl ketone))
--------------------------------------------------------------------------------
Zn++       vlt NaClO4 25°C  3.0M U        K1=-0.14  B2=0.90   1959THa (14617) 505
                                         B3=1.20
                                         B4=1.29
                                         B5=1.22
                                         B6=0.63
--------------------------------------------------------------------------------
Zn++       EMF KNO3   20°C 3.3?M U T H    K1=1.46   B2=2.17   1958GIa (14618) 506
                                         B3=2.34
                                         B4=2.01
Method: Zn amalgam electrode; DH(B4)=-23.8(40 C); B4=1.74(40 C)
--------------------------------------------------------------------------------
Zn++       sol none   25°C  0.0  U        K1=1.19        1958YKa (14619) 507
--------------------------------------------------------------------------------
Zn++       sol KNO3   25°C 1.70M U        K1=2.05        1957NMa (14620) 508
                                         B3=2.61
--------------------------------------------------------------------------------
Zn++       sp  KNO3   20°C 0.50M U  I     K1=0.55        1957YTa (14621) 509
```

K1=0.44(I=1.7 to 3.0), 0.52(I=1.0)

Zn++ EMF KNO3 20°C 1.70M U 1956NMb (14622) 510
K1=1.53?
B3=2.18?
Method: Zn amalgam electrode

Zn++ EMF KNO3 20°C 1.70M U 1956NMb (14623) 511
K(ZnOH+L=ZnOHL)=2.01?
B(ZnOH+3L=Zn(OH)L3)=2.66?
Method: Zn amalgam electrode

Zn++ vlt KNO3 30°C 2.0M U K1=0.48 B2=0.85 1953FHa (14624) 512
B3=0
B4=1.30

****

SO4-- H2L Sulfate CAS 7664-93-9 (15)
Sulfate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	sp	none	25°C	dil	C		K1=3.43		2004AZa (15741)	513

H-point standard addition method. Competition with murexide.

Zn++ sol oth/un 200°C 0.10M C K1=2.6 1998WBa (15742) 514
Method: solubility of ZnO (zincite) in 0.01 m Na2SO4/0.09 m Na triflate.

Zn++ sp none 25°C 0.0 C K1=2.34 1997CRc (15743) 515
Extrapolated from data for I=0.01-1.20 M Na2SO4.
Competitive reaction with xylenol orange.

Zn++ vlt oth/un ? var C 1995VPa (15744) 516
K1eff=1.30
pH=7.9 of Pisuerga river water. Ionic strength ranged from 0.01 M to 0.75M.
Method: Anodic Stripping Voltammetry.

Zn++ sp none 25°C 0.0 C K1=2.03 1990WAa (15745) 517

Zn++ con none 25°C 0.0 C T K1=2.35 1989ADa (15746) 518
Data for 10-50C. DH(K1)=-0.18 kJ mol-1, DS(K1)=12.87 J K-1 mol-1.

Zn++ con none 25°C 0.0 C I K1=2.28 1986SDa (15747) 519
Value derived from data for 0.001-0.05 self medium.

Zn++ oth none 25°C 0.0 C H K1=2.12 1981YYa (15748) 520
Calculated from published UV spectrometry data (competition with Cu).
From conductivity data: K1=2.23, DH(K1)=6.64 kJ mol-1, DS(K1)=65.1.

Zn++ cal oth/un 25°C 0.17M U H 1978ARa (15749) 521
DH(K1)=-1.54 kJ mol-1, DS=13.8. In 0.17 M ZnCl2

```
--------------------------------------------------------------------------------
Zn++       con none   25°C  0.0  C T      K1=2.73        1977STd (15750) 522
At 15 C, K1=2.68; at 40 C, K1=2.80.
--------------------------------------------------------------------------------
Zn++       con mixed  25°C    ?  U T H    K1=2.22        1976KAa (15751) 523
K1=2.09 (0 C); 2.18 (20 C); 2.24 (30 C); 2.29 (40 C); 2.32 (45 C)
Medium: Water-ethylene glycol mixture
--------------------------------------------------------------------------------
Zn++       ISE NaClO4 25°C 4.00M U  I M   K1=0.61   B2=0.88   1975FCa (15752) 524
                                         B3=1.03
                                         B4=0.75
                                         B(ZnCl(SO4)3)=1.23
--------------------------------------------------------------------------------
Zn++       con none   25°C  0.0  U        K1=2.5         1975TAa (15753) 525
--------------------------------------------------------------------------------
Zn++       sp  none   25°C  0.0  C        K1=2.05        1975YYa (15754) 526
--------------------------------------------------------------------------------
Zn++       cal NaClO4 25°C  3.0M U   H    K1=0.21        1974BRa (15755) 527
Medium: LiClO4. DH(K1)=3.0 kJ mol-1, DS(K1)=14.6 J K-1 mol-1
--------------------------------------------------------------------------------
Zn++       dis NaClO4 25°C 1.00M U        K1=0.69   B2=1.48   1974MSc (15756) 528
--------------------------------------------------------------------------------
Zn++       ISE NaClO4 25°C  3.0M U TI     K1=0.70   B2=0.69   1973FCa (15757) 529
                                         B3=0.90
                                         B4=0.85
                                         B5=1.04
K1=1.9, B2=3.1(I=0); K1=0.93, B2=1.97(I=0.5); K1=0.89, B2=1.23, B3=1.66,
B4=1.67(I=1); 0.76,1.18,1.11,1.38(I=2)
--------------------------------------------------------------------------------
Zn++       cal none   25°C  0.0  U   H                  1973HPa (15758) 530
DH(K1)=6.7 kJ mol-1
--------------------------------------------------------------------------------
Zn++       cal none   25°C  0.0  U   H                  1973POa (15759) 531
DH(K1)=6.1 to 6.6 kJ mol-1
--------------------------------------------------------------------------------
Zn++       oth none   25°C  0.0  C        K1=2.30   B2= 1.70  1972PIa (15760) 532
Calculated from published osmotic coefficient data.
--------------------------------------------------------------------------------
Zn++       EMF NaClO4 25°C  3.0M U        K1=0.70   B2=0.70   1971FCb (15761) 533
                                         B3=0.90
                                         B4=0.81
                                         B(ZnCl3L)=0.3
Medium: LiClO4. B(ZnClL)=0.36, B(ZnClL2)=0.62, B(ZnClL3)=0.53;
B(ZnCl2L)=0.41, B(ZnCl2L2)=-0.40
--------------------------------------------------------------------------------
Zn++       con none   25°C  0.0  U        K1=2.33        1971HPa (15762) 534
--------------------------------------------------------------------------------
Zn++       cal none   25°C  0.0  C   H                  1970LAe (15763) 535
DH(K1)=5.7 kJ mol-1, DS(K1)=63.6 J K-1 mol-1.
Method: heat of dilution measurements.
```

Zn++ oth none 50°C 0.0 U T K1=2.6 1969HEa (15764) 536
Estimated from literature data. K1=2.7(60 C), 3.2(100 C), 3.8(150 C), 4.6(200 C)

Zn++ cal none 25°C 0.0 U H K1=2.49 1969IEa (15765) 537
DH(K1)=2.6 kJ mol-1; DS(K1)=56.5 J K-1 mol-1

Zn++ con oth/un 25°C 0.0 U T H K1=2.49 1969NPe (15766) 538
K1=2.60(50 C), 2.67(70 C), 2.73(90 C). DH(K1)=8.1 kJ mol-1

Zn++ con mixed 25°C 20% U I K1=2.68 1969SMd (15767) 539
Medium: THF/H2O. In 0% THF: K1=2.11, 50%: 3.16

Zn++ ISE oth/un 35?°C 0.0 U K1=2.12 1968PRd (15768) 540

Zn++ oth oth/un 25°C ? U I K1=2.34 1967FPb (15769) 541
Method:ultrasonic absorption + Bjerrum's equation for K1out. Also in mixed glycol/H2O

Zn++ oth oth/un 25°C 0.0 U H K1=2.38 1967HEb (15770) 542
Method:from thermodynamic data. DH(K1)=16 to 17 kJ mol-1, DS=100 J K-1 mol-1

Zn++ sol oth/un 20°C var U 1964PCa (15771) 543
Kso(Zn(OH)1.5L0.25)=-13.4

Zn++ con oth/un 25°C var U K1=2.30 1961PFa (15772) 544

Zn++ oth KNO3 -3°C sat U K1=0.64 B2=1.54 1959RRc (15773) 545
Method: freezing point

Zn++ oth KNO3 0°C sat U I K1=0.66 1958KEa (15774) 546
Method: freezing point. K1=1.31(KClO3 sat), 1.71(KClO4 sat). K1=2.26 I=0 co.

Zn++ EMF oth/un 25°C 0.0 U T H K1=2.38 1958NNa (15775) 547
Method: H electrode. K1=2.08(0 C), 2.27(15 C), 2.34(20 C), 2.47(35 C), 2.53(45 C). DH(K1)=16.8 kJ mol-1, DS=102 J K-1 mol-1

Zn++ oth oth/un 0°C 0.0 U K1=2.34 1956KEb (15776) 548
Method: freezing point

Zn++ oth oth/un 0°C 0.0 U K1=2.2 1955BPb (15777) 549
Method: freezing point. K1=2.00 to 2.38

Zn++ sol oth/un 75°C 0.0 U 1954DOa (15778) 550
Kso(Zn(OH)1.5L0.25)=-14.3

Zn++ gl oth/un 25°C var U 1939HAa (15779) 551
Kso(Zn(OH)1.5L0.25)=-13.3

```
Zn++       con oth/un 18°C  0.0  U        K1=2.28        1938DAa (15780) 552
By Zn/Hg electrode K1=2.27
-------------------------------------------------------------------------------
Zn++       con oth/un 25°C  0.0  U        K1=2.31        1938OGa (15781) 553
-------------------------------------------------------------------------------
Zn++       con oth/un 18°C  0.0  U        K1=2.35        1927DAb (15782) 554
*******************************************************************************
S2O3--                 H2L    Thiosulfate      CAS 73686-28-7  (177)
Thiosulfate;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       vlt NaClO4  RT   5.0M C        K1=1.30   B2= 2.34  1986MGb (16708) 555
                                         B3=2.53
Method: polarography, using Cd++ as indicator ion
-------------------------------------------------------------------------------
Zn++       cal oth/un 25°C 0.17M U   H                   1978ARa (16709) 556
DH(K1)=9.20 kJ mol-1, DS=52.3. In 0.17 M ZnCl2
-------------------------------------------------------------------------------
Zn++       cal R4N.X  25°C 0.50M U   H    K1=1.12        1974ARa (16710) 557
DH=9.20 kJ mol-1.
-------------------------------------------------------------------------------
Zn++       dis NaClO4 25°C 1.00M U        K1=0.62   B2=2.28   1974MSc (16711) 558
-------------------------------------------------------------------------------
Zn++       ISE NaNO3  25°C  2.0M U        K1=1.10   B2=1.95   1972NEb (16712) 559
                                         K3=0.56
Method: Ag electrode
-------------------------------------------------------------------------------
Zn++       ISE NaClO4 25°C  3.0M U        K1=0.96   B2=1.94   1970PEa (16713) 560
                                         B3=3.30
                                         B(Zn2L4)=5.8(?)
-------------------------------------------------------------------------------
Zn++       vlt oth/un       var  U  I     B2=2.04        1969SSf (16714) 561
                                         B3=1.70
                                         B4=3.33
Medium: 25% MeOH: B2=2.79, B3=4.0, B4=ca.4.8
-------------------------------------------------------------------------------
Zn++       ISE NaClO4 25°C 0.78M U        K1=2.08   B2=4.60   1968JGa (16715) 562
Method: Zn/Hg electrode +  spec., also constants for mixed L/C2O4 complexes
-------------------------------------------------------------------------------
Zn++       ix  oth/un 18°C 0.30M U        B2=4.59        1957KPb (16716) 563
-------------------------------------------------------------------------------
Zn++       sol oth/un 40°C 3.00M U        K1=1.53        1957NMa (16717) 564
Medium:Na2SO4
-------------------------------------------------------------------------------
Zn++       cal NaNO3  25°C  1.0M U   H    K1=1.19        1957YGa (16718) 565
DH(K1)=14.6 kJ mol-1, DS=71 J K-1 mol-1
-------------------------------------------------------------------------------
Zn++       EMF KNO3   20°C 1.70M U  I                   1956NMb (16719) 566
                                         B2=2.95?
```

B(ZnO+2L)=3.13?
Method: Zn/Hg electrode. In 1.7 M Na2SO4 B2=2.18?, 3 M Na2SO4 B2=2.22?
K(ZnOH+2L)=2.13(KNO3), 1.28(Na2SO4), 1.37(3 M Na2SO4) ?

Zn++ sp none 25°C 0.0 U T H K1=2.29 1955GMa (16720) 567
K1=2.24(15 C), 2.40(35 C). DH(K1)=13.0 kJ mol-1, DS=92 J K-1 mol-1

Zn++ EMF oth/un rt? var U K1=2.3 1936FRa (16721) 568

Zn++ ISE oth/un ? var U 1904EUa (16722) 569
B4<0.6
****
Se-- H2L Selenide (6335)
Selenide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ oth none 25°C 0.0 U 1964BUe (16933) 570
Kso=-29.4
****
SeCN- HL Selenocyanate CAS 73102-11-2 (440)
Selenocyanate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ ISE non-aq 25°C 100% C K1=2.0 1982SSd (16956) 571
Medium: dimethylacetamide

Zn++ cal NaClO4 25°C 1.0M U H K1=0.44 B2=0.64 1974AAb (16957) 572
DH(K1)=-5.94 kJ mol-1, DS=-11.7 J K-1 mol-1, DH(K2)=-0.42, DS=2.9.
Zn amalgam electrode also used

Zn++ EMF mixed 20°C 50% U I K1=2.15 B2=2.64 1970SAe (16958) 573
B3=3.80
Medium: 50% v/v acetone/H2O. K1=2.30, B2=3.49, B3=4.50(60%);
2.74, 4.04, 5.0(75%); 4.95, 5.54, 6.5(90%)

Zn++ EMF non-aq 20°C 100% U I K1=7.88 B2=10.0 1970SAe (16959) 574
B3=11.15
B4=11.85
Medium: acetone. In acetonitrile: K1=7.3, B2=9.4, B3=10.8, B4=12.25;
In DMF:K1=2.6, B2=4.3, B3=4.9

Zn++ vlt KNO3 30°C 2.0M U K1=0.76 B2=1.00 1967HBa (16960) 575
****
SeO3-- H2L Selenite CAS 7783-00-8 (2391)
Selenite;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---

```
Zn++       con oth/un 18°C  dil  U                        1968RVa (17021) 576
                                        Kso=-7.72
--------------------------------------------------------------------------------
Zn++       sol oth/un 20°C  var  U                        1956CHe (17022) 577
                                        Kso(ZnL)=-6.59
********************************************************************************
SeO4--                 H2L    Selenate         CAS 7783-08-6  (459)
Selenate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       cal oth/un 25°C 0.17M U   H                    1978ARa (17087) 578
DH(K1)=0.21 kJ mol-1, DS=18.0. In 0.17 M ZnCl2
--------------------------------------------------------------------------------
Zn++       dis NaClO4 25°C 1.00M U        K1=0.73   B2=1.38   1974MSc (17088) 579
--------------------------------------------------------------------------------
Zn++       sol oth/un 20°C  var  U                        1959BRc (17089) 580
                                        Kso(Zn(OH)1.5L0.25)=-13.4
--------------------------------------------------------------------------------
Zn++       con none   25°C  0.0  U        K1=2.19        1934BAa (17090) 581
********************************************************************************
SiO3--                 H2L    Silicate         CAS 7699-41-4  (747)
Silicate; SiO2(OH)2--
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       oth none   25°C  0.0  U                        1957BAa (17175) 582
From thermodynamic data. Ks(ZnSiO3(s)+H2O=SiO2(s)+Zn+2OH)=-21.03
********************************************************************************
SiW11O39--------      H8L                      (2464)
alpha-Heterosilicon-polytungstate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 1.00M U        K1=7.28        1984COa (17229) 583
                                        K(beta1 isomer)=6.96
                                        K(beta2 isomer)=6.88
                                        K(beta3 isomer)=7.00
********************************************************************************
CHN3S2                  HL                       (7830)
1,2,3,4-Thiatetrazol-5-thiolate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       EMF NaClO4 25°C  2.0M U        K1=0.25   B2= 0.90  1981NMc (17456) 584
                                        B3=1.68
                                        B4=1.55
                                        B5=2.48
Zn electrode used
********************************************************************************
```

CH2O2 HL Formic acid CAS 64-18-6 (37)
Methanoic acid; H.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	70%	M		K1=2.41		1990BSb (17548)	585
Medium: 70% v/v DMSO/H2O, 0.1 M NaNO3										
Zn++	oth	NaClO4	25°C	2.0M	U		K1=0.73		1990FTa (17549)	586
Methods: averaged results from potentiometric, polarographic and spectrophotometric measurements.										
Zn++	gl	diox/w	25°C	30%	C	I	K1=1.24		1989LCb (17550)	587
Medium: 30% dioxan/H20, 0.1 M NaNO3. In 0%, K1=1.07; 50%, K1=1.96.										
Zn++	gl	NaNO3	25°C	0.10M	C	I M	K1=0.95		1988LTc (17551)	588
							K(Zn(phen)+L)=0.83			
Data also for 50% v/v EtOH/H2O, and 50% v/v Dioxan/H2O mixtures										
Zn++	gl	KNO3	25°C	0.10M	C	I M	K1=1.07		1985BSd (17552)	589
							K(Zn(phen)+L)=0.90			
In 50% dioxan: K1=1.96, K(Zn(phen)+L)=1.82. In 50% EtOH: K1=1.49, K=1.38										
Zn++	gl	KNO3	25°C	0.10M	C	I M	K1=1.07		1985SMf (17553)	590
							K(Zn(phen)+L)=0.90			
Also data in 30, 50, 60, 70, and 90% (v/v) Ethanol/water and 10, 30, 50, 60, 70, 80, and 90% (v/v) dioxane/water.										
Zn++	sol	oth/un	25°C	1.00M	U		K1=0.92		1973TRc (17554)	591
Zn++	vlt	oth/un	25°C	1.00M	U		K1=0.73		1973TRc (17555)	592
Zn++	gl	NaNO3	30°C	0.40M	U		K1=0.73		1970BTa (17556)	593
Zn++	EMF	NaClO4	25°C	2.00M	U		K1=0.70	B2=1.08	1970FMa (17557)	594
							B3=1.20			
Zn++	vlt	NaClO4	25°C	2.00M	U		K1=0.70	B2=1.18	1968FPa (17558)	595
							B3=0.70			
Zn++	gl	diox/w	25°C	50%	U	M	K1=1.97		1968GPd (17559)	596
							K(Zn(bpy)+L)=1.83			
Medium: 0.1(NaClO4), 50% dioxan										
Zn++	vlt	NaClO4	25°C	2.0M	U		K1=0.60	B2=1.55	1957HBa (17560)	597
							K3=0.48			
							K4=0.78			

****

CH3NO L Formamide CAS 75-12-7 (3536)
Methanoic acid amide; HCO.NH2

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       vlt alc/w    ?   40%  U  I     B2=0.62        1962MGa (17673) 598
Medium: 40% MeOH, 0.05 NaClO4. B2=0.79(77%), 0.93(85%), 1.9(92%), 3.7(100%)
--------------------------------------------------------------------------------
Zn++       vlt alc/w    ?   90%  U  I     K1=1.64   B2=1.96   1962MGa (17674) 599
Medium: 90% EtOH, 0.05 NaClO4. K1=2.1(96%), B2=3.5(96%); B3=4.23(96%);
B4=9.0(100%)
********************************************************************************
CH3NO2                 HL                     CAS 4312-87-2  (8245)
N-Formylhydroxylamine;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       vlt KNO3   30°C 0.50M C        B2=4.32        1983BNa (17682) 600
Method: polarography.
********************************************************************************
CH3O5P                H3L    Phosphonoformic  CAS 4428-95-9  (5654)
Phosphonoformic Acid; O:P(OH)2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C         K1=5.64        1994SCa (17693) 601
                                          K(Zn+HL)=2.57
                                          K(ZnL+H)=4.50
********************************************************************************
CH4N2S                  L    Thiourea         CAS 62-56-6  (51)
Thiocarbamide, Thiourea; (H2N)2CS
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       ISE mixed  25°C  82%  U         K1=1.77   B2=1.96   1979TBb (17739) 602
Medium: 82% formamide
--------------------------------------------------------------------------------
Zn++       EMF mixed  25°C  90%  U  I     K1=2.05   B2=3.85   1966SLc (17740) 603
                                          K3=1.65
                                          K4=1.45
                                          K5=0.75
Medium:0-90% acetone. K1=0.5(0%),1.0(50%),1.75(80%), K2=0.25(0%),0.7(50%),
1.45(80%), K3=0.15(0%), 0.5(50%), 1.20(80%), K4=0.4(80%)
********************************************************************************
CH4O                    L    Methyl alcohol   CAS 67-56-1  (597)
Methanol; CH3.OH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       cal non-aq 25°C 100%  C  IH                    2002LVa (17871) 604
                                          K(ZnP+L)=2.78
Medium: CCl4. ZnP: Zn(II)tetraphenylporphyrine. DH(ZnP+L)=-13.21 kJ mol-1,
```

DS=9 J K-1 mol-1. Data for related ligands.

Zn++ vlt alc/w 20°C ? U K1=-0.14 B2=0.04 1981PKb (17872) 605
B3=1.42
B4=0.94
B5=1.36
B6=2.01

Zn++ EMF alc/w 20°C 100% U 1964GUa (17873) 606
K(2Zn+3(H-1L))=12.1

Method: H electrode. Medium: MeOH, 1.0 M Me4NCl

****

CH4O3ClP H2L CAS 2565-58-4 (1973)

Chloromethylphosphonic acid; Cl.CH2.PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	EMF	NaNO3	25°C	0.10M	U		K1=2.11	1970TNa (17922)	607

****

CH4O6Cl2P2 H4L CAS 10596-23-3 (2370)

Dichloromethanediphosphonic acid; Cl2.C(PO3H2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	U		K1=6.70	1976DGe (17945)	608
							K(Zn+HL)=4.61		

****

CH5N L Methylamine CAS 74-89-5 (155)

Methylamine; CH3.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sol	oth/un	19°C	0.10M	U		B2=<6.3	1933TAa (17996)	609
							B4=7.7		

****

CH5N3O L Semicarbazide CAS 563-41-7 (373)

Semicarbazide, N-Aminourea; H2N.CO.NH.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	ISE	oth/un	30°C	0.10M	U		K1=2.3 B2=3.7	1969GLa (18050)	610

****

CH5N3S L CAS 79-19-6 (372)

Thiosemicarbazide; H2N.CS.NH.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=1.34 B2=2.58	1979LGa (18062)	611
							B3=3.71		

```
Zn++       ISE oth/un 30°C 0.10M U        B2=2.8         1969GLa (18063) 612
**********************************************************************
CH5N3Se                  L                      CAS 21198-79-8  (371)
Selenosemicarbazide; H2N.CSe.NH.NH2
----------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
----------------------------------------------------------------------
Zn++       ISE oth/un 30°C 0.10M U        B2=<1          1969GLa (18086) 613
**********************************************************************
CH5O3P                H2L                      CAS 13590-71-1  (1752)
Methylphosphonic acid; CH3.PO3H2
----------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
----------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M M        K1=2.60        1992SCa (18112) 614
**********************************************************************
CH5O4P                H2L                      CAS 86703-09-5  (1751)
Methylphosphoric acid;  CH3OP(O)(OH)2
----------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
----------------------------------------------------------------------
Zn++       gl  NaNO3  25°C  0.1M M        K1=2.22        1996SSa (18161) 615
----------------------------------------------------------------------
Zn++       gl  NaCl   25°C 0.15M U         K1=2.175       1990KLb (18162) 616
                                          B(ZnH-1L)=-5.12
----------------------------------------------------------------------
Zn++       sp  oth/un 20°C 0.10M U T      K1=2.16        1965BRb (18163) 617
K1(65 C)=2.67
**********************************************************************
CH6NO3P               H2L    AMPA              CAS 1066-51-3  (1981)
Aminomethylphosphonic acid; H2N.CH2.PO3H2
----------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
----------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C  I   R K1=5.0         2001PRa (18206) 618
                                           K(Zn+HL)=1.70
IUPAC Recommended values
----------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C        K1=4.91        1994SCa (18207) 619
                                          K(Zn+HL)=1.72
                                          K(ZnL+H)=6.89
----------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U         K1=5.00        1979WNb (18208) 620
                                          B(ZnHL)=11.72
                                          B(ZnH2L2)=23.6
                                          B(ZnH-1L)=-1.9
----------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U         K1=5.26   B2=8.68   1976SOa (18209) 621
                                          B(ZnHL)=12.72
----------------------------------------------------------------------
```

Zn++ gl KNO3 25°C 0.10M U K1=5.64 1971WNc (18210) 622
B(ZnHL)=11.68
B(ZnH2L2)=23.6

****

CH6N4O L Carbohydrazide CAS 497-18-7 (3537)
Carbohydrazide; H2N.NH.CO.NH.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	20°C	0.10M	U		K1=2.77	1964COd (18236)	623

****

CH6N4S L CAS 2231-57-4 (4209)
Thiocarbohydrazide; H2N.NH.CS.NH.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.50M	U		K1=2.53	1969BDa (18242)	624

****

CH6O6P2 H4L Medronic acid CAS 1984-15-2 (2384)
Methanediphosphonic acid; CH2(PO3H2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	NaCl	37°C	0.15M	C		K1=9.94	1997ZJa (18259)	625
							K(ZnL+2H)=10.02		
							K(ZnH2L+2H)=5.73		
							K(ZnL+Zn)=5.56		
							K(ZnL+OH)=4.46		

Also estimat.via linear free energy relationship K(Sm+L)=9.3;K(SmL+H)=9.0
K(Ho+L)=9.6; K(HoL+H)=9.0

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	U		K1=13.99 B2=20.55	1967KLa (18260)	626
							K(Zn+HL)=7.50		
							K(Zn+2HL)=13.54		
							B(Zn2L)=18.16		
							K(2Zn+HL)=11.23		

****

C2H2 L Acetylene CAS 74-85-1 (703)
Ethyne; HCCH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	dis	none	40°C	0.0	U	T	K1=-1.70	1984DWa (18352)	627

****

C2H2O2Cl2 HL CAS 79-43-6 (1282)
Dichloroethanoic acid; Cl2CH.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	70%	M		K1=1.78	1990BSb (18389)	628

Medium: 70% v/v DMSO/H2O, 0.1 M NaNO3

****

C2H2O2F2 HL Difluoracetic CAS 381-73-7 (6782)

Difluoroethanoic acid; F2HC.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	70%	M		K1=1.85		1990BSb (18406)	629

Medium: 70% v/v DMSO/H2O, 0.1 M NaNO3

****

C2H2O3 HL Glyoxylic acid CAS 298-12-4 (1142)

Glyoxylic acid; OHC.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	25°C	0.50M	U	M	K1=0.64		1966LHc (18415)	630

See glycine, alanine and 2-aminoisobutanoic acid for ternary complexes

****

C2H2O4 H2L Oxalic acid CAS 144-62-7 (24)

Ethanedioic acid; (COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	35°C	0.10M	C	M	K1=4.35		1997PSb (18630)	631
							K(ZnL+A)=6.10			

H2A is thiamine orthophosphoric acid.

Zn++	vlt	oth/un	25°C	0.1M	U		K1=3.5		1995FFa (18631)	632
Zn++	gl	KNO3	30°C	0.10M	U		K1=5.34		1994RSa (18632)	633
Zn++	dis	NaCl	25°C	0.68M	C		K1=3.58		1990SBb (18633)	634
Zn++	gl	NaCl	25°C	0.50M	C		K1=3.46	B2=6.03	1989FRa (18634)	635
Zn++	gl	KNO3	35°C	0.10M	C	M	K1=5.31		1985RRc (18635)	636
							B(ZnL(cytidine))=9.40			
Zn++	gl	KNO3	35°C	0.10M	C		K1=5.31		1985RRh (18636)	637
Zn++	oth	NaClO4	40°C	0.10M	C	M	B2=5.11		1984SIa (18637)	638
							B(ZnL(nta))=6.58			

Method: Paper electrophoresis, pH 10.0.

Zn++	vlt	KNO3	25°C	0.30M	C		K1=3.50	B2= 5.05	1983APa (18638)	639
							B3=6.00			

Method: polarography. Medium: 0.30 M KNO3, pH 8.0.

Zn++	gl	NaClO4	30°C	0.10M	U		K1=3.87	B2=6.08	1981MSa (18639)	640

```
Zn++       sol oth/un 20°C 2.10M U    M   K1=5.40        1978KUa (18640) 641
                                          B(ZnL(glycolate))=6.47
                                          B(ZnL(glycolate)2)=6.95
                                          B(ZnL(lactate))=6.88
                                          B(ZnL(lactate)2)=7.16
-------------------------------------------------------------------------------
Zn++       dis NaClO4 23°C 1.00M U        K1=3.26   B2=6.63   1978PSb (18641) 642
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M C        K1=4.05        1976MTa (18642) 643
                                          B(Zn2HL2)=13.29
-------------------------------------------------------------------------------
Zn++       dis NaClO4 25°C 1.00M U        K1=3.42   B2=6.16   1974MSc (18643) 644
-------------------------------------------------------------------------------
Zn++       sol oth/un 20°C 2.10M U        K1=5.51        1971KSd (18644) 645
-------------------------------------------------------------------------------
Zn++       sp  oth/un 43°C  1.0M U                       1967GPb (18645) 646
                                          K3=0.57
Medium: 1(?) Zn(NO3)2
-------------------------------------------------------------------------------
Zn++       EMF KCl    25°C 2.00M U        K1=3.48   B2=5.48   1967KCa (18646) 647
                                          B3=7.08
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C  1.0M U    M   K1=3.44   B2=6.48   1967KWa (18647) 648
                                          K3=0.76
                                          B(Zn(en)L)=9.21
                                          B(Zn(en)2L)=12.31
                                          K(ZnLen+en=Zn(en)2+L)=1.64
B(Zn(en)L2)=10.76, K(ZnL(en)2+en=Zn(en)3+L)=0.38, K(Zn(en)+L)=3.49
-------------------------------------------------------------------------------
Zn++       dis oth/un 25°C  0.0  U        K1=4.85   B2=7.55   1966RMb (18648) 649
-------------------------------------------------------------------------------
Zn++       dis NaClO4 20°C 0.10M U        B2=7.59        1963STc (18649) 650
-------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.10M U        K1=4.9         1958GHc (18650) 651
-------------------------------------------------------------------------------
Zn++       ix  NaCl   25°C 0.10M U        K1=3.88   B2=6.40   1958SLb (18651) 652
                                          K(Zn+HL)=1.72
                                          K(Zn+2HL)=3.12
-------------------------------------------------------------------------------
Zn++       ix  oth/un   ?     ?  U        K2=7.11        1957KPb (18652) 653
-------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C >0.1  U        B2=7.60        1956ZOa (18653) 654
-------------------------------------------------------------------------------
Zn++       sol oth/un 25°C  0.0  U        K1=5.00   B2=12.36  1940VBa (18654) 655
-------------------------------------------------------------------------------
Zn++       EMF oth/un 25°C  0.0  U        K1=4.68   B2=7.04   1937CVa (18655) 656
-------------------------------------------------------------------------------
Zn++       con oth/un 18°C  0.0  U        K1=4.89        1932MDa (18656) 657
-------------------------------------------------------------------------------
Zn++       EMF oth/un 18°C 0.60M U                       1904KUa (18657) 658
```

B3=8.15

****

C2H3NO4 HL CAS 625-75-2 (2968)
Nitroacetic acid; O2N.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	kin	oth/un	18°C	0.20M	U		K1=0.03	1949PEa (19201)	659

Medium: Ba(NO3)2

****

C2H3N3 HL 1,2,4-Triazole CAS 288-88-0 (381)
1,2,4-Triazole; cyclo(-NH.N:CH.N:CH-) C2H3N3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	cal	NaNO3	25°C	1.00M	U	H		1986ARa (19221)	660
							K(Zn+HL)=1.19		

DH(Zn+HL) = -15.6 kJ mol-1

Zn++	gl	KNO3	25°C	0.50M	U			1980LKb (19222)	661
							K(Zn+HL)=1.19		
							K(Zn+2HL)=2.04		
							K(Zn+3HL)=2.56		

****

C2H3N3O2 HL Urazole CAS 3232-84-6 (3540)
1,2,4-Triazolidin-3,5-dione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	20°C	0.10M	U		K1=1.87	1963COb (19238)	662

****

C2H3N3S L CAS 4005-51-0 (1426)
2-Amino-1,3,4-thiadiazole; C2HN2S.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=0.32 B2=0.45	1982GLa (19250)	663

****

C2H3O2Br HL Bromoacetic acd CAS 79-08-3 (1309)
Bromoethanoic acid; Br.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	0.10M	U		K1=1.75	1969GPb (19274)	664

0.1 M NaClO4 in 50% dioxane/H2O

****

C2H3O2Cl HL Chloroacetic CAS 79-11-8 (34)
Chloroethanoic acid; ClCH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

---

Zn++ gl diox/w 25°C 70% M K1=2.23 1990BSb (19336) 665
Medium: 70% v/v DMSO/H2O, 0.1 M NaNO3

Zn++ gl NaNO3 30°C 0.40M U K1=0.56 1970BTa (19337) 666

Zn++ EMF NaClO4 18°C 2.00M U K1=0.40 1970FMa (19338) 667

Zn++ gl diox/w 25°C 0.10M U K1=1.83 1969GPb (19339) 668
0.1 M NaClO4 in 50% dioxane/H2O

Zn++ gl diox/w 25°C 50% U K1=1.83 1969SGa (19340) 669
Medium: 50% dioxan, 0.1 M NaClO4

Zn++ EMF NaClO4 25°C 1.0M U K1=0.96 B2=0.0? 1963LCa (19341) 670
B3=0.7?
B4=1.5(?)
Method: quinhydrone electrode.

****

C2H3O2F HL Fluoroacetic ac CAS 144-49-0 (4222)
Fluoroethanoic acid; F.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl diox/w 25°C 0.10M U K1=1.75 1969GPb (19401) 671
0.1 M NaClO4 in 50% dioxane/H2O

****

C2H3O2I HL Iodoacetic acid CAS 64-69-7 (1312)
Iodoethanoic acid; ICH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl diox/w 25°C 0.10M U K1=1.77 1969GPb (19414) 672
0.1 M NaClO4 in 50% dioxane/H2O

****

C2H4 L Ethylene CAS 74-85-1 (478)
Ethene; H2C:CH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ dis none 40°C 0.0 U T K1=-1.52 1984DWa (19420) 673

****

C2H4N4 HL CAS 61-82-5 (1265)
3-Amino-1,2,4-triazole; C2H2N3.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl KNO3 25°C 0.10M U I 1997DBa (19471) 674
K(Zn+HL)=2.14
K(Zn+2HL)=4.04

K(Zn+3HL)=5.66
Data also for I=0.5 and 1.0 M
****
C2H4N4 HL CAS 584-13-4 (819)
4-Amino-1,2,4-triazole; C2H2N3.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.50M U 1980LKb (19484) 675
K(Zn+HL)=1.14
K(Zn+2HL)=2.56
K(Zn+3HL)=2.56
****
C2H4N4O2 HL Urazine; CAS 21531-96-4 (3541)
4-Amino-1,2,4-triazolidin-3,5-dione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 20°C 0.10M U K1=2.17 1963COb (19490) 676
****
C2H4N4S HL CAS 16691-43-3 (9032)
3-Amino-5-mercapto-1,2,4-triazole;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C K1=4.01 2003AHa (19494) 677
****
C2H4OS HL Thioacetic acid CAS 507-09-5 (4223)
Thiolethanoic acid; CH3.CO.SH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 60% U K1=4.8 B2=8.90 1972OTc (19505) 678
Medium: 60% dioxan, 1 M (K,Na)NO3
****
C2H4OS2 HL CAS 2042-42-4 (592)
(Methoxy)dithiomethanoic acid; CH3O.CS.SH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ vlt KNO3 25°C 0.40M C 1984HSb (19510) 679
B3=8.05
Method: polarography.
****
C2H4O2 HL Acetic acid CAS 64-19-7 (36)
Ethanoic acid; CH3.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M M M 1994KTa (19742) 680

K(ZnA+L)=1.9
A:1,4,7,10-Tetraazacyclododecane. By kinetic methods, K=1.6

Zn++ kin NaClO4 25°C 0.10M M M 1992KKb (19743) 681
K(ZnA+L)=2.6
A:1,5,9-triazacyclododecane

Zn++ EMF oth/un 50°C 0.30M C TI K1=1.9 B2=3.4 1991GDa (19744) 682
B3=4.1
50-295 C;I=0.03-1.0 M. Constants at I=0

Zn++ vlt KNO3 25°C 0.10M C K1=2.40 B2= 3.92 1991KNb (19745) 683
Method: polarography, medium pH 8.5.

Zn++ gl diox/w 25°C 70% M K1=2.89 1990BSb (19746) 684
Medium: 70% v/v DMSO/H2O, 0.1 M NaNO3

Zn++ oth NaClO4 25°C 2.0M U K1=0.90 1990FTa (19747) 685
Methods: averaged results from potentiometric, polarographic and
spectrophotometric measurements.

Zn++ gl diox/w 25°C 30% C I K1=1.62 1989LCb (19748) 686
Medium: 30% dioxan/H20, 0.1 M NaNO3. In 0%, K1=1.11; 50%, K1=2.31.

Zn++ gl NaNO3 25°C 0.10M C I M K1=0.93 1988LTc (19749) 687
K(Zn(phen)+L)=0.81
Data also for 50% v/v EtOH/H2O, and 50% v/v Dioxan/H2O mixtures
---
Zn++ nmr none 20°C 0.0 U 1986DHa (19750) 688
K(ZnA+L)=0.8
In D2O. A = trien

Zn++ gl KNO3 25°C 0.10M C I M K1=1.11 1985BSd (19751) 689
K(Zn(phen)+L)=0.90
In 50% dioxan: K1=2.31, K(Zn(phen)+L)=2.15. In 50% EtOH: K1=1.86, K=1.81

Zn++ gl KNO3 25°C 0.10M C I M K1=1.11 1985SMf (19752) 690
K(Zn(phen)+L)=0.90
Also data in 30, 50, 60, 70, and 90% (v/v) Ethanol/water and 10, 30, 50, 60,
70, 80, and 90% (v/v) dioxane/water.

Zn++ gl KCl 25°C 0.10M U K1=1.14 1983LTa (19753) 691

Zn++ gl NaNO3 25°C 0.10M C K1=0.86 1981BKb (19754) 692

Zn++ ix none 23°C 0.0 U K1=0.91 B2=1.10 1980PSb (19755) 693

Zn++ ISE NaCl 25°C 1.00M C I K1=0.63 B2=1.10 1979BJd (19756) 694
In 1.0 M NaClO4: K1=0.90

```
Zn++       sp  NaClO4 25°C  1.0M C        K1=1.4         1978YOa (19757) 695
-------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.10M U        K1=4.04   B2=7.00   1975SNb (19758) 696
                                          B3=9.2
                                          B4=12.4
Medium: 0.1 M LiClO4/CH3COOH. K1: Zn(ClO4)2+LiOAc=ZnLClO4+LiClO4.
Bn: Zn(ClO4)2+nLiOAc=Zn(L)n+nLiClO4
-------------------------------------------------------------------------------
Zn++       kin KCl    25°C 0.10M U        K1=1.248       1974CLa (19759) 697
-------------------------------------------------------------------------------
Zn++       kin NaClO4 25°C 1.00M U        K1=0.63        1973HHb (19760) 698
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 3.00M U        K1=0.91   B2=1.36   1971PEa (19761) 699
                                          B3=1.57
-------------------------------------------------------------------------------
Zn++       vlt oth/un 25°C 1.00M U        K1=-0.15  B2=1.02   1971TRb (19762) 700
-------------------------------------------------------------------------------
Zn++       sol oth/un 25°C 1.00M U        K1=-0.10  B2=1.51   1971TRb (19763) 701
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  30°C 0.40M U        K1=0.91        1970BTa (19764) 702
-------------------------------------------------------------------------------
Zn++       EMF NaClO4 25°C 2.00M U        K1=0.85   B2=1.36   1970FMa (19765) 703
-------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C 0.10M U        K1=2.32        1969GPb (19766) 704
0.1 M NaClO4 in 50% dioxane/H2O
-------------------------------------------------------------------------------
Zn++       ISE NaClO4 25°C 3.00M U        K1=0.78   B2=1.25   1969WAa (19767) 705
                                          B3=1.72
-------------------------------------------------------------------------------
Zn++       vlt NaClO4 25°C 2.00M U        K1=1.04   B2=0.78   1968FPa (19768) 706
                                          B3=1.60
                                          B4=1.36
-------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U    M   K1=2.32        1968GPd (19769) 707
                                          K(Zn(bpy)+L)=2.21
Medium: 50% dioxan, 0.1 M NaClO4
-------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C  0.0  U        K1=1.57        1964AMa (19770) 708
-------------------------------------------------------------------------------
Zn++       EMF NaClO4 25°C  1.0M U        K1=1.03        1963LCa (19771) 709
Method: quinhydrone electrode
-------------------------------------------------------------------------------
Zn++       vlt NaNO3  25°C  4.0M U        K1=0.96        1963MAc (19772) 710
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 20°C 0.10M U        K1=1.28   B2=2.09   1962KPa (19773) 711
-------------------------------------------------------------------------------
Zn++       vlt oth/un 25°C 0.20M U T      K1=0.66        1960TKb (19774) 712
K1=0.76(15 C), 0.57(35 C)
-------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.10M U        K1=1.0         1960YYa (19775) 713
```

```
--------------------------------------------------------------------------------
Zn++       oth oth/un   ?     ?  U        K1=1.57        1956YFa (19776) 714
--------------------------------------------------------------------------------
Zn++       sol oth/un 35°C  ->0  U        K1=1.59        1955BAa (19777) 715
--------------------------------------------------------------------------------
Zn++       EMF oth/un 35°C  ->0  U        K1=1.46        1955BAa (19778) 716
--------------------------------------------------------------------------------
Zn++       EMF KCl      ?  0.20M U        K1=1.03        1938CKa (19779) 717
********************************************************************************
C2H4O2S               H2L    Thioglycolic     CAS 68-11-1  (596)
Mercaptoethanoic acid; HS.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  alc/w  30°C   5%  U        K1=7.86        1995RRb (20285) 718
Medium: 5% v/v EtOH/H2O, 0.10 M KNO3.
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M M    M                 1989SHd (20286) 719
                                          K(Zn(nta)+L)=4.95
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 30°C 0.10M U        K1=8.01   B2=15.26  1988NDa (20287) 720
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 20°C 0.10M U        K1=8.36   B2=15.18  1970AMa (20288) 721
--------------------------------------------------------------------------------
Zn++       ISE NaClO4 20°C 0.10M U        K1=7.80   B2=14.96  1967PSe (20289) 722
                                         B3=17.80
                                         K(Zn2L3)=25.2
                                         K(Zn3L4)=36.47
--------------------------------------------------------------------------------
Zn++       gl  KCl     0°C 0.10M U T      K1=8.3    B2=15.9   1958LEa (20290) 723
15 C: K1=7.95, B2=15.0; 35 C: K1=7.95, B2=15.48; 40 C: K1=8.0, B2=15.0
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.15M U        K1=7.44   B2=14.41  1955LMa (20291) 724
********************************************************************************
C2H4O3                HL    Glycolic acid    CAS 79-14-1  (33)
2-Hydroxyethanoic acid; HO.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       ix  none   23°C  0.0  U        K1=1.78   B2=2.70   1980PSb (20456) 725
--------------------------------------------------------------------------------
Zn++       sol oth/un 20°C 2.10M U    M                 1978KUa (20457) 726
                                         B(ZnL(oxalate))=6.47
                                         B(ZnL2(oxalate))=6.95
--------------------------------------------------------------------------------
Zn++       dis NaClO4 23°C 1.00M U        K1=1.85   B2=5.17   1978PSb (20458) 727
--------------------------------------------------------------------------------
Zn++       vlt NaNO3  25°C 3.00M U        K1=1.45   B2=2.57   1971AMa (20459) 728
                                         K3=0.29
                                         K4=-0.38
```

```
--------------------------------------------------------------------------------
Zn++       vlt NaClO4 18°C 2.00M U        K1=1.93   B2=2.94   1970FBa (20460) 729
                                          B3=3.48
                                          B4=3.00
--------------------------------------------------------------------------------
Zn++       EMF NaClO4 25°C 2.00M U        K1=1.72   B2=2.88   1970FMa (20461) 730
                                          B3=3.00
--------------------------------------------------------------------------------
Zn++       ix  oth/un   ?     ?  U    M                  1969LEa (20462) 731
                                          K(ZnL2+ZnA2=2ZnAL)=0.88
HA=2-hydroxyisobutanoic acid
--------------------------------------------------------------------------------
Zn++       ISE NaClO4 25°C 3.00M U        K1=1.79   B2=2.61   1969WAa (20463) 732
                                          B3=3.27
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U    M   K1=3.26        1968GPd (20464) 733
                                          K(Zn(bpy)+L)=3.02
Medium: 50% dioxan, 0.1 m NaClO4
--------------------------------------------------------------------------------
Zn++       EMF NaClO4 25°C  1.0M U      T K1=1.92   B2=2.93   1963LCa (20465) 734
                                          B3=3.00
                                          B4=4.04
Method: quinhydrone electrode
********************************************************************************
C2H5NO2                HL    Glycine          CAS 56-40-6  (85)
2-Aminoethanoic acid; H2N.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       cal NaNO3  25°C 0.50M C   H                  2003ZKa (21237) 735
                                          DH(K1)= -18.03 kJ mol-1
                                          DH(B3)= -45.77
                                          DH(B2)= -29.53
for 1.0 M NaNO3 DH(K1): - 19.77;  DH(B2)=-33.05; DH(B3)=- 49.21
for 1.5 M NaNO3 DH(K1)=: - 21.06; DH(B2)=-35.95; DH(B3)= - 51.01
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C    M   K1=5.46   B2= 9.96  2000KAb (21238) 736
                                          K(ZnA+L)=3.58
H2A=Dipicolinic acid.
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C    M   K1=5.29   B2= 9.17  2000ZLa (21239) 737
                                          B(ZnLA)=11.49
A=12-Pentyl-1,4,7,10-tetraazacyclotridecane-11,13-dione.
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M   K1=5.30        1999AAa (21240) 738
                                          K(ZnL+A)=3.62
                                          B(ZnLA)=8.92
                                          K(ZnHL+B)=2.83
                                          K(ZnHL+C)=1.89
K(ZnHL+D)=2.13. HA=MOPSO, HB=MOPS, HC=DIPSO, HD=TAPSO.
```

```
---------------------------------------------------------------------------
Zn++       gl  alc/w  37°C  40%  C    M   K1=5.48   B2=10.03  1998AAa (21241) 739
                                         B(ZnLA)=10.00
                                         K(ZnL+A)=4.52
                                         K(ZnA+L)=4.78
                                         B(ZnLC)=9.89
HC:2[o-hydroxyphenylazo]-2-cyanomethyl benzimidazole. 40% EtOH/H2O, I=0.15
H2A:5-[o-hydroxyphenylazo] barbituric acid. K(ZnL+C)=4.41, K(ZnC+L)=4.86.
---------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M C    M   K1=5.26   B2= 9.27  1998ZWa (21242) 740
                                         B(ZnH-1L2)=1.66
                                         B(ZnH-2L2)=-7.68
Data for ternary complexes with 3,3,9,9-tetramethyl-4,8-diazaundecane-
2,10-dione dioxime
---------------------------------------------------------------------------
Zn++       gl  alc/w  37°C  40%  C        K1=5.48   B2=10.03  1997AAb (21243) 741
Medium: 40% v/v EtOH/H2O, 0.15 M NaClO4.
---------------------------------------------------------------------------
Zn++       gl  alc/w  25°C  50%  C        K1=5.13        1997MGb (21244) 742
---------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M C    M   K1=5.50        1997PSb (21245) 743
                                         K(ZnL+A)=4.86
H2A is thiamine orthophosphoric acid.
---------------------------------------------------------------------------
Zn++       gl  none   25°C  0.0  C TIH    K1=5.43   B2= 9.90  1995CDc (21246) 744
                                         B3=12.29
Data for 0-0.09 M and 5-45 C. DH(K1)=-11.4 kJ mol-1, DH(B2)=-25.3,
DH(B3)=-40.2
---------------------------------------------------------------------------
Zn++       gl  NaNO3  37°C 0.10M U    M   K1=5.02        1994MGc (21247) 745
Data for ternary complexes with 6-aminopenicillanic acid
---------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.20M U T  M   K1=5.22   B2= 9.59  1993PPa (21248) 746
                                         K(ZnA+L)=5.04
A is 2,2'-bipyridylamine. Also data for 35 and 45 C.
---------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.20M U    M   K1=5.33   B2=10.02  1992VBa (21249) 747
                                         B(ZnL(Ala))=10.09
---------------------------------------------------------------------------
Zn++       vlt KNO3   25°C 0.10M C    M   K1=4.80   B2= 8.94  1991KNb (21250) 748
                                         B3=11.41
                                         B(ZnAL)=6.54
                                         B(ZnA2L)=9.28
                                         B(ZnAL2)=10.75
Method: polarography, medium pH 8.5. HA is ethanoic acid.
---------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.15M C TIH  R K1=5.03   B2=9.23   1991KSa (21251) 749
                                         B3=11.77
0.5 M, K1=4.86, B2=9.07, B3=11.49;   37 C, 0.15 M, K1=4.87, B2=8.96,B3=11.25
DH(K1)=-11.5, DH(B2)=-24.5 kJ mol-1. IUPAC evaluation
```

```
--------------------------------------------------------------------------------
Zn++       gl  KNO3   37°C 0.15M C    M   K1=4.96   B2= 9.16  1990KKc (21252) 750
                                           B3=11.86
                                           B(ZnH-1L)=-3.28
                                           B(ZnHL(imidazole))=14.30
                                           B(ZnL(imidazole)3)=12.44
--------------------------------------------------------------------------------
Zn++       gl  KNO3   37°C 0.15M U    M   K1=4.96   B2= 9.16  1990KKc (21253) 751
                                           B3=11.86
                                           B(ZnH-1L)=-3.28
                                           B(ZnA3L)=12.44
                                           B(ZnHAL)=14.30
A: imidazole
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C        K1=5.90        1989GAb (21254) 752
--------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.20M U    M   K1=4.86   B2=8.99   1989RVa (21255) 753
                                           K(ZnA+L)=4.40
A=bis(imidazol-2-yl)methane
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 21°C 0.10M M        K1=5.02        1989WLa (21256) 754
                                           B(ZnH-1L)=-2.35
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 27°C 0.20M U    M   K1=5.22   B2= 9.59  1988PPc (21257) 755
                                           K(ZnA+L)=5.03
A is 2,2'-dipyridylamine.
--------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  50%  C        K1=5.71   B2=10.82  1987MSd (21258) 756
Medium: 50% v/v dioxane/H2O, 0.2 M NaNO3.
--------------------------------------------------------------------------------
Zn++       nmr none   20°C  0.0  U                            1986DHa (21259) 757
                                           K(ZnA+L)=2.8
                                           K(ZnA+HL)=0.7
In D2O. A = trien
--------------------------------------------------------------------------------
Zn++       nmr none   20°C  0.0  U                            1986DHb (21260) 758
                                           K(ZnA+L)=1.34
In D2O. A = tren
--------------------------------------------------------------------------------
Zn++       gl  NaCl   37°C 0.15M U        K1=4.868  B2=8.74   1985CFb (21261) 759
                                           B3=11.10
                                           B(ZnH-1L)=-2.98
--------------------------------------------------------------------------------
Zn++       ISE KNO3   25°C 0.10M U    M T K1=5.09   B2=9.78   1985DVa (21262) 760
                                           B3=11.85
                                           K(Zn(IDA)+L)=6.27
Hanging drop amalgam electrode.
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=5.02        1985MKa (21263) 761
--------------------------------------------------------------------------------
```

```
Zn++       gl  KNO3   35°C 0.10M C    M   K1=5.22        1985RRc (21264) 762
                                           K(Zn+HL+cytidine)=8.23
                                           K(ZnL(cytidine)+H)=5.54
--------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M C        K1=5.22        1985RRh (21265) 763
--------------------------------------------------------------------------------
Zn++       gl  oth/un 30°C 0.20M U    M   K1=5.22        1984JOb (21266) 764
                                           K(Zn(bpy)+L)=4.81
Medium: not stated.
--------------------------------------------------------------------------------
Zn++       vlt KNO3   30°C 0.30M C    M   K1=4.75   B2= 8.50  1983APa (21267) 765
                                           B3=10.30
                                           B(ZnAL)=7.24
                                           B(ZnAL2)=8.21
                                           B(ZnA2L)=9.35
Method: polarography. Medium: 0.30 M KNO3, pH 8.0. H2A is oxalic acid.
B(Zn(en)L)=10.57, B(Zn(en)L2)=12.55, B(Zn(en)2L)=13.24
--------------------------------------------------------------------------------
Zn++       oth NaClO4 35°C 0.10M C        K1=5.85   B2= 8.53  1983PYa (21268) 766
                                           B3=10.77
Method: paper electrophoresis.
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  37°C 0.15M U    M                  1982ESa (21269) 767
                                           B(ZnLA)=7.911
                                           B(ZnHLAB)=24.560
                                           B(ZnH2LAB)=31.020
A= Imidazole and B= Pyridoxamine.
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M C    M   K1=4.832  B2= 8.93  1981ABe (21270) 768
                                           B3=10.767
                                           B(ZnHL)=10.073
                                           B(ZnH-1L2)=-0.572
                                           B(ZnAL)=10.623
B(ZnHAL)=16.576; B(ZnHBL)=19.922, B(ZnBL2)=16.166, B(ZnHBL2)=24.752,
B(ZnB2L)=19.747. HA=histidine, H2B=cysteine.
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  30°C 0.20M C    M   K1=5.02   B2= 9.22  1981RSd (21271) 769
                                           K(Zn(asp)+L)=4.29
                                           B(Zn(asp)L)=10.08
H2asp is aspartic acid.
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  30°C 0.20M C    M                  1981RSe (21272) 770
                                           B(Zn(ida)L)=10.97
                                           K(Zn(ida)+L)=3.99
--------------------------------------------------------------------------------
Zn++       gl  KNO3   30°C 0.10M U    M                  1980MSb (21273) 771
                                           B(Zn(His)+L)=4.51
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 1.00M C        K1=5.05   B2=9.41   1979BJc (21274) 772
                                           B3=12.1
```

B(ZnHL)=9.78
Alternative method: Ion selective electrode

Zn++ gl diox/w 25°C 70% C I K1=7.19 B2=13.25 1979ZRa (21275) 773
K3=3.41
Data available for various media concentrations: 10 to 70% Dioxan (V/V).

Zn++ gl R4N.X 25°C 0.10M C K1=5.03 B2=9.39 1979ZRa (21276) 774
K3=3.33
Medium: Et4NClO4

Zn++ gl KNO3 25°C 0.10M U M 1978DOb (21277) 775
B(ZnL(His))=11.08
B(ZnL(Histamine))=9.92
B(ZnL2(His))=12.77

Zn++ gl NaNO3 20°C 0.10M U K1=4.69 B2=9.19 1978LEb (21278) 776

Zn++ gl KCl 25°C 0.20M U M T K1=4.84 B2=9.02 1978SKa (21279) 777

Zn++ gl NaClO4 37°C 0.15M U T K1=4.909 B2=8.997 1975CMa (21280) 778
B3=11.306
B(ZnHL)=9.297
B(ZnH-1L)=-2.706

Zn++ gl KNO3 25°C 0.10M C M T K1=4.96 B2=9.19 1975DOb (21281) 779
K3=2.46
B(ZnLbpy)=9.71
B(ZnL(bpy)2)=13.15
B(ZnL2bpy)=13.00

Zn++ gl KNO3 25°C 0.10M C T K1=4.93 B2=9.26 1975IPb (21282) 780

Zn++ gl NaClO4 30°C 0.20M U K1=5.22 B2=9.59 1975JBb (21283) 781

Zn++ gl NaNO3 25°C 0.20M U K1=4.95 B2=9.08 1974FSa (21284) 782
B(ZnLA)=6.87
B(ZnLB)=6.90
B(ZnLC)=6.77
B(ZnLD)=6.48
A=succinyl dihydrazide; B=1,6-hexanedioic acid dihydrazide;
C=acetylhydrazide; D=Benzoyl hydrazide

Zn++ gl mixed 25°C 20% C I K1=5.46 B2=9.82 1974MMa (21285) 783
K3=2.68
Medium: 20% DMF, 0.1M KNO3. Also data for 40%, 50%, 60%, 70%, 75%, 80% DMF

Zn++ gl NaClO4 25°C 0.10M C I T K1=5.19 B2=9.33 1974MMa (21286) 784
K3=2.73
Also data for 20%, 40%, 50%, 60%, 70%, 75%, 80% Dioxan, 0.1M NaClO4

```
--------------------------------------------------------------------------------
Zn++       nmr oth/un 32°C 0.50M U        K1=5.92   B2=10.05  1973HAb (21287) 785
35Cl probe
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 1.00M U    M T K1=4.89   B2=9.07   1972BPa (21288) 786
                                         B3=11.51
                                         B(ZnL(NH3))=7.52
                                         B(ZnL(NH3)2)=9.46
                                         B(ZnL2(NH3))=10.85
--------------------------------------------------------------------------------
Zn++       gl  none   25°C 0.00  U T    T K1=5.38   B2=9.81   1972IJb (21289) 787
                                         K3=2.52
10 C: K1=5.50, K2=4.57, K3=2.63; 40 C: K1=5.29, K2=4.29, K3=2.40
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U T  M                  1972IVc (21290) 788
                                         K(ZnA+L)=4.41
H2A=methyliminodiethanoic acid.  15 C: K=4.53; 50 C: 4.13
--------------------------------------------------------------------------------
Zn++       cal KCl    25°C 0.05M U   H  T K1=5.06   B2=9.44   1971GNa (21291) 789
DH(K1)=-8.4 kJ mol-1, DS=67 J K-1 mol-1; DH(B2)=-13.3, DS=38
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U      T K1=4.96   B2=9.19   1971GSb (21292) 790
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C       U        K1=5.24   B2=9.65   1970CBb (21293) 791
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.50M U      T K1=4.85   B2=9.14   1970FEa (21294) 792
                                         B3=11.81
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.50M U  I   R K1=4.81   B2=9.00   1970FRa (21295) 793
                                         K3=2.51
Medium: LiClO4. Other media: 54.3% MeOH, 0.5 M LiClO4: K1=5.38, K2=4.75,
K3=2.91; 48.1% dioxan, 0.5 M LiClO4: K1=5.71, K2=5.09, K3=3.21
--------------------------------------------------------------------------------
Zn++       gl  KNO3   37°C 0.15M U      R K1=4.90   B2=9.01   1969CPc (21296) 794
                                         B3=11.31
                                         K(ZnL+H2O=Zn(OH)L+H)=-8.89
                                         K(Zn+HL)=0.02
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=4.96   B2=9.20   1969GEb (21297) 795
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.50M U    M R K1=4.88   B2=9.11   1968LBa (21298) 796
                                         B3=11.56
Ternary complexes with NTA, salicylaldehyde, pyridoxal, solochrome violet R
--------------------------------------------------------------------------------
Zn++       cal NaClO4 25°C 0.10M U   H                  1967BBd (21299) 797
DH(K1)=-14.2 kJ mol-1, DS=57.7 J K-1 mol-1
--------------------------------------------------------------------------------
Zn++       cal KNO3   20°C 0.10M U   H                  1967SSl (21300) 798
DH(B2)=-25.1 kJ mol-1, DS=92.4 J K-1 mol-1
--------------------------------------------------------------------------------
```

```
Zn++       gl  KCl    25°C 0.50M U    M T K1=4.88   B2=9.01   1966LHc (21301) 799
                                          B3=11.02
                                          B(ZnAL)=7.60
                                          B(ZnBL)=6.75
                                          B(ZnAL2)=11.9
HA=pyruvic acid, HB=glyoxylic acid. B(ZnBL2)=10.7; B(ZnA2L2)=14.35;
B(ZnB2L2)=12.23
--------------------------------------------------------------------------------
Zn++       gl  KCl    40°C 0.20M U T H    K1=5.07   B2=9.14   1965SMb (21302) 800
K1=5.27(15 C), 5.19(25 C); K2=4.31(15 C), 4.21(25 C);
DH(K1)=-13.8 kJ mol-1, DS=54.3 J K-1 mol-1; DH(K2)=-16.7, DS=25.1
--------------------------------------------------------------------------------
Zn++       oth KNO3   20°C 0.10M U        K1=5.9    B2=10.10  1964JOa (21303) 801
                                          K3=3.1
Method: paper electrophoresis
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.65M U T HM T K1=4.88   B2=9.01   1964LSa (21304) 802
                                          B3=11.0
                                          B(ZnAL)=7.53
                                          B(ZnAL2)=12.0
                                          B(ZnA2L2)=14.25
10 C: K1=4.96,B2=9.24,B3=11.9;  25 C: DH(K1)=-8.8 kJ mol-1,DH(B2)=-24.7.
DH(ZnAL)=-7.9, DH(ZnA2L2)=-31.4
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.15M U        K1=5.42   B2=9.94   1955LMa (21305) 803
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=5.03   B2=9.30   1955MMa (21306) 804
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U      T K1=5.16   B2=9.50   1954IRa (21307) 805
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.01M U        K1=5.0          1954PEa (21308) 806
--------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  75%  U        K1=8.3    B2=15.1   1954UFa (21309) 807
                                          K3=3.80
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C 0.01M U        K1=5.2    B2=14.5   1953ALa (21310) 808
--------------------------------------------------------------------------------
Zn++       gl  oth/un 22°C 0.01M U        B2=9.2          1952PEa (21311) 809
Medium: ZnSO4
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C  ->0  U        K1=5.52   B2=9.96   1951MOa (21312) 810
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.01M U        K1=5.33   B2=9.72   1950MMa (21313) 811
--------------------------------------------------------------------------------
Zn++       gl  KNO3   20°C 0.50M U        K1=4.80   B2=8.94   1945FLa (21314) 812
                                          K3=(2.56)
********************************************************************************
C2H5NO2                HL    Acetohydroxamic  CAS 546-88-3  (2766)
Acetohydroxamic acid, N-Hydroxyacetamide; CH3.CO.NHOH
--------------------------------------------------------------------------------
```

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C	M	B(Zn(en)L)=11.15 B(Zn(bpy)L)=10.65 B(Zn(gly)L)=9.78 B(Zn(tiron)L)=13.57	2000FEa (21791)	813

B(Zn(en)L2)=14.07, B(Zn(en)2L)=14.4, B(ZnH-1(en)L)=1.77, B(Zn(bpy)L2)= 14.3, B(Zn(bpy)2L)=14.93, B(ZnH-1(bpy)L)=2.08, B(Zn(gly)2L)=13.08

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C	M	K1=5.18 B2=9.45 B(ZnH-1L)=-3.40 B(ZnAL)=9.28 B(ZnAL2)=11.98	1993FBa (21792)	814

HA: alanine.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	31°C	0.15M	U	I	K1=5.46	1992SKa (21793)	815

Also data for 25 and 50% v/v EtOH/H2O.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C	M	K1=5.22 B2= 9.09 K(Zn(ida)+L)=3.76 K(Zn(bpy)+L)=5.26 K(ZnA+L)=5.24 K(Zn(phen)+L)=5.40	1991DAc (21794)	816

K(ZnB+L)=5.66, K(ZnC+L)=5.13. A: 2,2'-dipyridylamine;
B: 5-nitro-1,10-phenanthroline; C: 5-methyl-1,10-phenanthroline.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C	M	K1=5.22 B2= 9.09 B(Zn(ida)L)=11.00 B(Zn(mida)L)=11.32 B(Zn(nta)L)=14.16 B(Zn(bpy)L)=10.39	1989DAb (21795)	817

B(Zn(phen)L)=11.80, B(ZnAL)=11.85 where H3A is N-(2-carboxyphenyl)-iminodiethanoic acid

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	KNO3	30°C	0.50M	C		K1=5.10	1983BNa (21796)	818

Method: polarography.

****

C2H5NO3 HL CAS 2921-14-4 (1892)

Aminooxyethanoic acid; H2N.O.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=2.90	1985WTa (21826)	819

****

C2H5N3O2 L Biuret CAS 108-19-0 (1126)

Carbomoylurea (Allophanic acid); H2N.CO.NH.CO.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

```
Zn++       gl  NaClO4 25°C 0.01M U T H    K1=10.25       1979SBa (21845) 820
DH(K1)=-119 kJ mol-1
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.01M U        K1=10.25       1975SSb (21846) 821
**************************************************************************
C2H5O5P              H2L                    CAS 590-54-5  (1764)
Acetylphosphoric acid; CH3.CO.O.PO3H2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   37°C 0.15M M    M   K1=5.35   B2=8.79   1979SPb (21868) 822
                                         K(Zn+HL)=2.63
Data for ternary complexes with Gly and His
**************************************************************************
C2H6N2O                 L    Glycinamide      CAS 598-41-4  (60)
2-Aminoethanoic acid amide; H2N.CH2.CO.NH2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M U    M   K1=3.57   B2=6.18   1990NJa (21945) 823
                                         B(ZnL(His))=8.32
                                         B(ZnL(histamine))=8.17
                                         B(ZnL(imidazole))=5.14
--------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.15M U        K1=3.28        1958LCa (21946) 824
**************************************************************************
C2H6N2O                 L    Acethydrazide    CAS 1068-57-1  (2566)
Ethanoic acid hydrazide, Acetylhydrazine; CH3.CO.NH.NH2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.20M U        K1=1.93   B2=3.42   1974FSa (21961) 825
--------------------------------------------------------------------------
Zn++       vlt NaClO4 25°C  1.0M U        K1=2.48   B2=3.65   1968SUa (21962) 826
                                         B3=4.68
**************************************************************************
C2H6N2O2               HL                     CAS 5549-80-4  (833)
2-Amino-N-hydroxyacetamide, Glycine hydroxamic acid; H2N.CH2.CO.NH.OH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaCl   35°C 0.15M U  I     K1=5.85   B2=10.41  1995SKc (21984) 827
Also data for 42% v/v MeOH/H2O, 52% v/v EtOH/H2O, 59% v/v i-PrOH/H2O,
61% v/v dioxan/H2O.
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M C        K1=5.38   B2=10.07  1987PCa (21985) 828
                                         B(ZnHL)=12.40
                                         B(ZnH-1L)=-1.46
                                         B(Zn2L3)=19.45
**************************************************************************
```

C2H6OS HL CAS 60-24-2 (841)
2-Mercaptoethanol; HS.CH2.CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	cal	KNO3	25°C	0.50M	U	H			1974BHa (22053)	829
							B(Zn2L3)=18.32			
							B(Zn3L6)=38.625			
							B(Zn4L9)=57.81			
							B(Zn5L12)=77.18			
B(Zn6L15)=95.92. DH(Zn6L15)=-280.3 kJ mol-1, DH(Zn3L6)=-154.4, DH(Zn4L9)=-221.8, DH(Zn5L12)=-167.4										
Zn++	gl	KNO3	25°C	0.50M	U				1971BPc (22054)	830
							B(2Zn+3L)=18.32			
							B(3Zn+6L)=38.52			
							B(4Zn+9L)=57.80			
							B(5Zn+12L)=77.20			
B(6Zn+15L)=95.92										
Zn++	gl	oth/un	?	0.0	U				1961AMa (22055)	831
							B3=17.31			

****

C2H6S L CAS 75-18-3 (151)
Dimethyl sulfide; CH3.S.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	nmr	alc/w	34°C	50%	C		K1=-1.4		1980SSa (22184)	832
Also in D2O, K1=-1.4										

****

C2H7N L Ethylamine CAS 75-04-7 (156)
Ethylamine; CH3.CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	25°C	0.50M	U	M	K1=2.30	B2=4.33	1971LLa (22253)	833
							B3=6.0			
							B(ZnLA)=7.78			
							B(ZnL2A2)=14.9			
HA=salicylaldehyde										

****

C2H7NO L Ethanolamine CAS 141-43-5 (1057)
2-Aminoethanol; H2N.CH2.CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	sp	R4N.X	25°C	2.00M	C	I	K1=2.70	B2=5.18	1983DBa (22358)	834
Zn++	gl	oth/un	25°C	0.10M	U		K1=2.41		1981HAa (22359)	835

Medium: 0.1 M HOCH2CH2NH2.HNO3

Zn++	vlt	NaNO3	25°C	0.10M	U I	B2=7.93 B3=9.18	1975KMa (22360)	836

Medium: LiNO3. In 40% EtOH/H2O, B3=9.72

Zn++	vlt	oth/un	25°C	0.10M	U I M	B2=7.93 B3=9.18 B(ZnL2(en))=12.11 B(ZnL(en)2)=13.13	1974MKc (22361)	837

In 20% EtOH/H2O (v/v) B2=8.15, B3=9.13

Zn++	gl	oth/un	25°C	2.0M	U	K1=2.62 B2=4.83 K3=1.84	1970URa (22362)	838
Zn++	gl	oth/un	25°C	0.10M	U	K1=3.7 B2=6.00 K3=1.9 K4=1.5	1965DOb (22363)	839
Zn++	vlt	alc/w	25°C	100%	U I	B2=12.30 B3=13.30 B4=13.72	1962MSa (22364)	840

Medium:100% EtOH, 0.01 M NaClO4. 0%:B2=8.00,B3=9.48; 20%:B2=8.95,B3=9.78;
60%:B2=8.70,B3=10.42; 94%:B2=11.85,B3=12.23,B4=13.00

Zn++	vlt	KNO3	25°C	0.10M	U	B4=9.2	1959MPa (22365)	841

****

C2H7NS HL CAS 60-23-1 (588)

2-Aminoethanethiol; H2N.CH2.CH2.SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	C		K1=8.77 B2=15.72 B(ZnH-1L)=1.94	1995LMa (22466)	842
Zn++	gl	KNO3	25°C	0.20M	C		K(Zn+2HL)=9.10 *K(Zn(HL)2)=-5.80 K(ZnHL2+HL)=3.78 *K(ZnHL2)=-7.15	1992AHa (22467)	843
Zn++	gl	KNO3	25°C	0.10M	M M		K(Zn(nta)+L)=5.56 K(Zn(nta)+H+L)=13.99	1989SHd (22468)	844
Zn++	vlt	oth/un	25°C	0.26M	U		B2=6.17	1961KPb (22469)	845

Medium: 0.264 M phosphate buffer

Zn++	gl	KCl	25°C	0.10M	U		K1=8.07	1955FRa (22470)	846

K(Zn+HL)=3.98

Zn++ gl KNO3 25°C 0.15M U K1=9.90 B2=18.74 1955LMa (22471) 847

Zn++ gl KNO3 30°C 1.0M U K1=10.22 B2=18.90 1951GOa (22472) 848

****

C2H7N3O L CAS 67015-05-8 (2702)

2-Aminoacetamidoxime; H2N.CH2.C(:NOH)NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	1.00M	C		K1=4.09	B2=7.82	1986OSa (22506)	849
							B3=9.46			
							B(ZnH-1L2)=-0.89			

****

C2H7O3P H2L CAS 71778-99-9 (1978)

Ethylphosphonic acid; CH3.CH2.PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	M		K1=2.67	1992SCa (22560)	850

****

C2H8NO3P H2L CAS 6323-97-3 (1862)

1-Aminoethanephosphonic acid; CH3.CH(NH2).PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C		K1=5.66	1998KMa (22605)	851
							B(ZnHL)=12.93		
Zn++	gl	KCl	25°C	0.20M	C		K1=5.99	1987KBb (22606)	852
							B(ZnHL)=11.79		
Zn++	gl	KNO3	25°C	0.20M	C		K1=5.67	1978MAb (22607)	853
							K(Zn+HL)=1.70		

****

C2H8NO3P H2L CAS 2041-14-7 (1863)

2-Aminoethanephosphonic acid; H2N.CH2.CH2.PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C		K1=6.09	B2=10.94	1987KBb (22625)	854
							B(ZnHL)=12.93			
Zn++	gl	KNO3	25°C	0.10M	U		K1=6.16		1979WNb (22626)	855
							B(ZnHL)=12.99			
							B(ZnH2L2)=26.2			
							B(ZnH-1L)=-1.70			
Zn++	gl	KNO3	25°C	0.20M	C				1978MAb (22627)	856

K(Zn+HL)=1.96

****

C2H8NO4P H2L CAS 1071-23-4 (1864)

2-Aminoethyl-dihydrogenphosphoric acid; H2N.CH2.CH2.OPO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	20°C	0.10M	U		K1=5.17		1987BPb (22654)	857
							K(Zn+HL)=2.77			
Zn++	gl	KNO3	25°C	0.20M	C				1978MAb (22655)	858
							K(Zn+HL)=1.77			
Zn++	gl	KNO3	25°C	0.20M	C				1978MAc (22656)	859
							K(Zn+HL)=1.77			

****

C2H8N2 L Ethylenediamine CAS 107-15-7 (23)

1,2-Diaminoethane; H2N.CH2.CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	alc/w	25°C	50%	C		K1=5.52		1997MGb (22983)	860
Zn++	gl	NaClO4	25°C	0.20M	M		K1=5.70		1996VBa (22984)	861
Zn++	gl	KNO3	30°C	0.10M	U		K1=5.87		1994RSa (22985)	862
Zn++	gl	KCl	25°C	0.20M	C		K1=5.60	B2=10.26	1993KKb (22986)	863
							B3=13.01			
Zn++	gl	mixed	25°C	0.30M	U		K1=6.89	B2=13.44	1993LSa (22987)	864
							K3=4.3			
							For 100% H2O K2=2.40			
							For 100% H2O K1=5.84			
							For 100% H2) K3=0.9			

Medium: 0.3 M NaClO4 in 0.5 mol parts DMSO in H2O
for 0.97 mol parts DMSO K1=7.01; K2=6.63; K3=4.8

Zn++	cal	KNO3	25°C	1.50M	U	HM			1989KCa (22988)	865

DH(Zn(IDA)+L)=-19.8 kJ mol-1

Zn++	cal	oth/un	25°C	dil	C	H	K1=5.69	B2=10.62	1989OFa (22989)	866
							B3=13.24			

Medium: NH4Cl/NH3 buffer, pH 10. DH(K1)=-24.48 kJ mol-1,
DH(B2)=-46.02, DH(B3)=-64.22.

Zn++	gl	KNO3	35°C	0.10M	U	M	K1=5.54		1989RSb (22990)	867
							K(Zn(thiodipropanoate)+L)=5.50			
Zn++	gl	KNO3	35°C	0.20M	U	M	K1=5.62	B2=10.17	1989RVa (22991)	868

```
                                        K(ZnA+L)=4.71
A=bis(imidazol-2-yl)methane
-------------------------------------------------------------------------------
Zn++       nmr none   20°C  0.0  U                        1986DHa (22992) 869
                                        K(ZnA+L)=2.7
                                        K(ZnA+HL)=0.6
In D2O. A = trien
-------------------------------------------------------------------------------
Zn++       nmr none   20°C  0.0  U                        1986DHb (22993) 870
                                        K(ZnA+L)=1.26
In D2O. A = tren
-------------------------------------------------------------------------------
Zn++       EMF KCl    25°C 0.10M U        K1=6.10         1985SNa (22994) 871
                                        K1=6.32 by spectrophotometry
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 3.00M U        K1=6.49   B2=12.44  1985WIa (22995) 872
                                        B3=14.88 (Zn/Hg electrode)
                                        B(ZnHL)=1.03
                                        B(ZnL2H)=7.47
                                        B(ZnL3H)=12.81
Additinonal method: Zn(Hg) electrode
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U    M                    1984MSb (22996) 873
                                        K(Zn(thiolactate)+L)=4.40
-------------------------------------------------------------------------------
Zn++       gl  none   20°C  0.0  C TIH  R K1=5.77   B2=10.83  1984PAa (22997) 874
IUPAC evaluation
-------------------------------------------------------------------------------
Zn++       vlt KNO3   30°C  0.3M C        K1=6.20   B2=11.65  1983APa (22998) 875
                                        B3=13.74
Method: polarography. Medium: 0.30 M KNO3, pH 8.0.
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U    M   K1=5.98         1982KJa (22999) 876
                                        K(Zn2(CDTA)+2L)=11.81
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  30°C 0.50M M        K1=6.15   B2=10.98  1982MAd (23000) 877
                                        B3=13.76
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  20°C 2.00M U        K1=6.23   B2=10.00  1982SSg (23001) 878
                                        B3=13.35
                                        B(ZnHL)=12.92
                                        B(ZnH2L2)=26.26
                                        B(ZnH3L3)=39.0
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  30°C 0.20M C    M   K1=5.92   B2=10.82  1981RSd (23002) 879
                                        K(Zn(asp)+L)=5.32
                                        B(Zn(asp)L)=11.11
H2asp is aspartic acid.
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  30°C 0.20M C    M                    1981RSe (23003) 880
```

```
                                        B(Zn(ida)L)=12.17
                                        K(Zn(ida)+L)=5.19
-------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C   HM   K1=5.78   B2=10.73  1979SGb (23004) 881
-------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M U    M   K1=5.78   B2=10.73  1978SKa (23005) 882
-------------------------------------------------------------------------------
Zn++       vlt NaNO3  25°C 0.10M U  I     B2=12.78       1975KMa (23006) 883
                                        B3=14.52
Medium: LiNO3. In 40% EtOH/H2O B2=12.84, B3=14.52
-------------------------------------------------------------------------------
Zn++       vlt oth/un 25°C 0.10M U  I     B2=12.78       1974MKc (23007) 884
                                        B3=14.52
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C  I     K1=5.91   B2=10.72  1974MMa (23008) 885
                                        K3=2.10
Also data for 55%, 60%, 65%, 70%, 75%, 80% MeOH, 0.1M KNO3
-------------------------------------------------------------------------------
Zn++       gl  mixed  25°C  20%  C  I     K1=6.18   B2=11.22  1974MMa (23009) 886
                                        K3=2.28
Medium: 20% DMF, 0.1M KNO3. Also data for 40%, 50%, 60%, 70%, 75%, 80% DMF
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M C  I     K1=5.85   B2=10.54  1974MMa (23010) 887
                                        K3=1.94
Also data for 20%, 40%, 50%, 60%, 70%, 75%, 80% Dioxan, 0.1M NaClO4
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 30°C 0.15M U    M   K1=6.24        1974PBb (23011) 888
                                        B(ZnL(bpy))=5.40
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=5.59   B2=10.61  1971GSb (23012) 889
                                        K3=3.78
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K2=5.15        1970DNa (23013) 890
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.50M U  I     K1=5.75   B2=10.84  1970FRa (23014) 891
Medium: LiClO4.  Other media: 54.3% MeOH, 0.5 M LiClO4: K1=6.02, K2=5.30
48.1% dioxan, 0.5 M LiClO4: K1=6.52, K2=5.73
-------------------------------------------------------------------------------
Zn++       gl  KNO3   37°C 0.15M U    M   K1=5.53   B2=10.28  1969PSb (23015) 892
                                        B3=12.70
                                        B(ZnLA)=10.37
                                        B(ZnL(Ser))=9.86
                                        B(ZnL(Ser)2)=12.47
A=histamine.
-------------------------------------------------------------------------------
Zn++       ISE non-aq 25°C 100%  U        K1=7.18   B2=13.85  1969PSd (23016) 893
                                        B3=18.70
Medium: DMSO, 0.1 M KClO4
-------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  50%  U        K1=6.30   B2=11.51  1968HOa (23017) 894
```

Constants corrected to zero ionic strength

Zn++ vlt KCl 30°C 0.50M U M B2=11.2 1967SSk (23018) 895
B3=12.3

Ternary complexes with oxalic acid

Zn++ cal KCl 25°C 1.0M U H 1960CPa (23019) 896
DG(K1)=-33.02, DH=-27.8, DS=18; DG(B2)=-60.19, DH=-58.26, DS=9.2;
DG(B3)=-70.22, DH=-86.6, DS=-55

Zn++ gl none 10°C 0.0 U T K1=5.85 B2=10.98 1959MBa (23020) 897
K3=3.26
20 C: K1=5.77, K2=5.06, K3=3.28; 30 C: K1=5.55, K2=4.89, K3=3.22;
40 C: K1=5.51, K2=4.76, K3=3.18

Zn++ gl oth/un 10°C ->0 U T H 1959MBa (23021) 898
10-40 C: DG(K)=-31.76 kJ mol-1, DH=-21, DS=38; DG(K2)=-27.59, DH=-22, DS=-21

Zn++ gl oth/un 25°C 1.40M U K1=5.92 B2=11.07 1957PBa (23022) 899
K3=1.86

Zn++ vlt oth/un 25°C 0.10M U K1=5.71 B2=10.37 1956MOa (23023) 900
K3=1.72

Zn++ oth oth/un 25°C 1.0M U H 1956RAa (23024) 901
DS(Zn(NH3)4+2L=ZnL2+4NH3)=88

Zn++ vlt KNO3 25°C 0.10M U B2=13.65 1955NMa (23025) 902
K3=0.83

Zn++ gl KNO3 25°C 0.50M U K1=6.00 B2=11.08 1955NMa (23026) 903
K3=2.07

Zn++ ISE KNO3 25°C 0.50M U K1=6.00 B2=10.81 1955NMa (23027) 904
K3=2.17

Zn++ cal KCl 25°C 0.10M U H 1954DSa (23028) 905
DH(B2)=-48.1 kJ mol-1, DS=31.8 J K-1 mol-1; DH(B3)=-77.3, DS=41.0

Zn++ gl diox/w 30°C 75% U K1=6.8 1954UFa (23029) 906

Zn++ gl oth/un 30°C ->0 U K1=5.56 B2=10.43 1953MCa (23030) 907

Zn++ gl KNO3 25°C 2.15M U H K1=6.15 B2=11.49 1953SPb (23031) 908
DH(K1)=-28 kJ mol-1, DH(B2)=-52.3

Zn++ gl KNO3 25°C 1.0M U K1=5.92 B2=11.07 1945BAa (23032) 909
K3=1.86

Zn++ gl KCl 30°C 1.0M U K1=5.71 B2=10.37 1945CMa (23033) 910

K3=1.72

****

C2H8N4S L CAS 35771-42-7 (4227)

S-Methylisothiocarbohydrazide; H2N.N:C(S.CH3).NH.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.50M	U		K1=4.27 B2=7.62	1972BMc (23250)	911

****

C2H8O7P2 H4L HEDPA CAS 2809-21-4 (436)

1-Hydroxyethane-1,1-diphosphonic acid; CH3.C(OH)(PO3H2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=10.3 K(ZnL+H)=6.27 K(ZnHL+H)=3.8	1997DBb (23314)	912
Zn++	vlt	NaCl	37°C	0.15M	C		K1=10.30 K(ZnL+2H)=9.88 K(ZnH2L+2H)=5.50 K(ZnL+Zn)=6.16 K(ZnL+OH)=4.93	1997ZJa (23315)	913

Also estimat.via linear free energy relationship K(Sm+L)=10.1;K(SmL+H)=9.1 K(Ho+L)=10.4; K(HoL+H)=9.1

Zn++	gl	KNO3	25°C	0.10M	U		K1=8.6 B(ZnHL)=8 B(ZnH2L)=17 B(Zn(OH))=6.1 B(Zn(OH)2)=9.9	1995DSa (23316)	914
Zn++	cal	R4N.X	25°C	0.04M	U	T H	K(2Zn+HL)=8.6 K(Zn+ZnHL)=2.6 B(Zn2L)=16.0 K(Zn+ZnL)=5.2	1995VKa (23317)	915

Medium: Bu4NNO3. Also at 15,35 C. DH(2Zn+HL)=14.8 kJ mol-1, DS=214 J K-1 m-1 DH(Zn+ZnHL)=0.8, DS=52; DH(2Zn+L)=30.5, DS=409; DH(Zn+ZnL)=29.8, DS=200

Zn++	cal	oth/un	25°C	0.02M	U	TI	K1=10.8 K(Zn+HL)=6.0 K(Zn+H2L)=2.85	1987VKb (23318)	916

DH(K1)=0.7 kJ mol-1, DS=209 J K-1 mol-1; DH(Zn+HL)=14.0, DS=162; DH(Zn+H2L)=7.1, DS=70

Zn++	gl	KNO3	25°C	0.10M	U		K1=7.36 K(Zn+HL)=4.51 K(Zn+H2L)=3.10	1980ZRc (23319)	917

```
Zn++       gl  KCl    25°C 0.10M U        K1=8.19        1976DGe (23320) 918
                                          K(Zn+HL)=5.00
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U        K1=10.73       1967KLa (23321) 919
                                          K(Zn+HL)=5.66
                                          K(2Zn+H-1L))=22.36
                                          K(2Zn+L)=15.03
                                          K(2Zn+HL)=8.13
********************************************************************************
C2H9NO6P2             H4L    IDPA             CAS 32545-63-4  (1335)
Imino-N,N-bis(methylenephosphonic acid); HN(CH2PO3H2)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C  0.1M C        K1=9.03        1985MMa (23441) 920
                                          B(ZnHL)=15.52
                                          B(ZnH2L)=18.9
********************************************************************************
C2H16N5O4Co            HL                    (231)
Pentaammineoxalatocobalt(III); Co(NH3)5(HC2O4)
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       sp  NaClO4 28°C 0.30M U        K1=1.81        1974NDa (23470) 921
********************************************************************************
C3H3NO2                HL    Cyanoacetic      CAS 372-09-8  (38)
Cyanoethanoic acid; NC.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C  2.0M U        K1=0.50        1981MFa (23507) 922
********************************************************************************
C3H3NS                  L    Isothiazole      CAS 288-16-4  (383)
Isothiazole; cyclo(-S.N:CH.CH:CH-)  C3H3NS
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=0.36        1978KLa (23516) 923
********************************************************************************
C3H3NS                  L    Thiazole         CAS 288-47-1  (382)
Thiazole; cyclo(-S.CH:N.CH:CH-)   C3H3NS
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=1.20   B2=1.99   1974LKb (23524) 924
                                          B3=2.38
********************************************************************************
C3H4N2                  L    Pyrazole         CAS 288-13-1  (367)
1,2-Diazole, pyrazole; cyclo(-NH.N:CH.CH:CH-)
--------------------------------------------------------------------------------
```

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=0.95	B2=1.53	1977BBb (23556)	925
Zn++	gl	KNO3	25°C	0.50M	U		K1=1.38	B2=2.43	1977LNa (23557)	926
							B3=3.10			
							B4=3.43			

****

C3H4N2 L Imidazole CAS 288-32-4 (90)

1,3-Diazole, imidazole; C3H4N2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	U		K1=2.53		2001PSb (23746)	927
Zn++	gl	KNO3	35°C	0.10M	C	M	K1=2.69		1999DSb (23747)	928
							B(ZnAL)=3.25			

A is thiamine hydrochloride.

Zn++	gl	NaClO4	30°C	0.20M	U		K1=2.53		1999PGa (23748)	929
Zn++	gl	NaNO3	30°C	0.20M	U		K1=2.48		1999PPa (23749)	930
Zn++	gl	NaNO3	25°C	0.50M	M		K1=2.58		1998KSa (23750)	931
Zn++	gl	NaNO3	25°C	0.10M	U	M	K1=2.97		1998MSe (23751)	932
Zn++	sp	non-aq	25°C	100%	C	H			1998RZa (23752)	933
							K(ZnP+L)=4.20			

Medium: CH2Cl2. Data for 20-35 C. P is meso-tetra(3-methylphenyl)porphyrin DH=-34.0 kJ mol-1, DS=-33.8 J K-1 mol-1. Data for 3-NO2-, 3-Cl-, 3-OCH3-

Zn++	gl	NaNO3	37°C	0.10M	U		K1=2.54		1997MGa (23753)	934
Zn++	gl	KNO3	35°C	0.10M	C	M	K1=2.74		1997PSb (23754)	935
							K(ZnL+A)=6.86			

H2A is thiamine orthophosphoric acid.

Zn++	gl	KCl	25°C	0.10M	C	TIH R	K1=2.56	B2=4.93	1997SJa (23755)	936
							K3=2.23			
							K4=2.03			

IUPAC evaluation. DH(K1)=-15.9 kJ mol-1(I=0.16).
I=0: K1=2.55, K2=2.35, K3=2.22, K4=2.02. I=3.0: 2.91, 2.01

Zn++	gl	KNO3	25°C	0.10M	C	H	K1=2.28	B2=4.91	1994AIa (23756)	937
							K3=2.26			

DH(K1)=-19.7, DH(K2)=-6.7, DH(K3)=-15.5 kJ mol-1. DS(K1)=-22.2, DS(K2)=25.0, DS(K3)=-16.7 J K-1 mol-1.

Zn++	gl	NaNO3	37°C	0.10M	U		K1=2.54		1994MGc (23757)	938

Data for ternary complexes with 6-aminopenicillanic acid

Zn++ gl NaNO3 25°C 0.10M M M K1=2.50 1993JCa (23758) 939
K(ZnA+L)=2.81

HA=N,N-bis(2-hydroxyethyl)glycine (bicine)

Zn++ gl KNO3 35°C 0.10M U M K1=2.55 1991RSb (23759) 940
B(Zn(Cys)L)=13.60
B(Zn(Cys)L2)=17.10

Zn++ gl KNO3 37°C 0.15M C M K1=2.29 B2= 4.95 1990KKc (23760) 941
B4=9.06

Data for ternary complexes with gly, ala and val.

Zn++ gl KNO3 37°C 0.15M U K1=2.29 B2= 4.95 1990KKc (23761) 942
B4=9.06

Zn++ dis oth/un 25°C 0.00 U K1=7.64 1987WCa (23762) 943

Zn++ gl NaNO3 37°C 0.15M U K1=2.982 B2=5.632 1983ERa (23763) 944

Zn++ gl NaNO3 37°C 0.10M U M 1983ERa (23764) 945
B(ZnL(Gly))=7.911
B(ZnL4(Gly))=16.693

Zn++ gl KNO3 25°C 0.50M U K1=2.70 B2=5.25 1983LWa (23765) 946
B3=7.48
B4=9.48
B5=11.00

Zn++ sp non-aq 25°C 100% U TIH 1982CFa (23766) 947
K(ZnA+L)=4.92

Medium: BuCl. A=tetraphenylporphyrin. Also in PhCl

Zn++ gl NaClO4 37°C 0.15M U M K1=2.55 B2=4.98 1982NVa (23767) 948
B3=7.40
B4=9.59
B(ZnL(histamine))=8.25
B(ZnL(His))=9.50

Zn++ gl NaNO3 25°C 0.10M A M 1982SSa (23768) 949
K(Zn(ATP)+L)=2.41

Zn++ gl NaNO3 25°C 0.10M A M K1=2.51 1982SSa (23769) 950
K(Zn(ATP)+L)=2.41
K(ZnA+L)=2.54

A=uridine-5'-triphosphate

Zn++ gl NaClO4 37°C 0.15M C K1=2.185 B2= 4.40 1979KBf (23770) 951
B3=6.877

B4=8.651

Zn++ gl NaClO4 25°C 3.00M C I M K1=2.92 B2=4.93 1977FOa (23771) 952
B3=8.77
B4=11.41
B(-4,1,3)=-22.97
B(-4,2,3)=-20.94

B(p,q,r): pH+qZn+rHL=Hp(Zn)q(HL)r
Data also in 3.0M NaCl

Zn++ gl NaClO4 25°C 3.00M C I M 1977FOb (23772) 953
K(ZnCl+L)=3.64
K(ZnCl+2L)=6.16
K(ZnCl+3L)=9.77
K(ZnCl+4L)=11.15

K(ZnCl+5L)=12.98; K(ZnCl3+L)=3.45

Zn++ gl NaClO4 25°C 0.50M C TIH K1=2.618 1974LVa (23773) 954
B3=7.596
B4=10.041

Zn++ ISE R4N.X 29°C 0.50M U K1=2.56 B2=4.89 1971BLb (23774) 955
B3=7.16
B4=9.19

Medium: NH4NO3

Zn++ gl NaClO4 25°C 0.10M U M K1=2.60 1968ISa (23775) 956
K(Zn(NTA)+L)=2.73
K(Zn(EDTA)+L)=1.79

Zn++ nmr non-aq 36°C 100% U M 1966WLa (23776) 957
B4=6.2
K(ZnAL+3L=ZnL4+A)=4.5
K(ZnL+B)=1.23

Medium: DMSO. A=cytosine, B=purine

Zn++ gl KNO3 25°C 0.20M U K1=2.13 1963CCb (23777) 958

Zn++ gl KCl 0°C .058M U T K1=3.36 B2=6.42 1961SMa (23778) 959

25 C: K1=3.15, K2=2.95; 45 C: K1=3.20, K2=2.84

Zn++ gl oth/un 25°C 0.16M U K1=2.52 B2=4.84 1958KKc (23779) 960
K3=2.32
K4=2.05

Zn++ gl oth/un 25°C 0.16M U K1=2.57 B2=4.93 1957NGa (23780) 961
K3=2.22
K4=2.01

Zn++ gl NaNO3 4°C 0.16M U T K1=2.76 B2=5.26 1954EFa (23781) 962

K3=2.35
K4=2.20
24 C: K1=2.58, K2=2.37, K3=2.23, K4=2.02
****
C3H4N2O2 HL Hydantoin CAS 461-72-3 (389)
2,4-Imidazolidinedione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.50M U H K1=3.09 B2= 5.55 1979BEc (23942) 963
B3=8.80
By calorimetry: DH(K1)=-8.2 kJ mol-1, DS(K1)=31 J K-1 mol-1;
DH(B2)=-17, DS(B2)=50; DH(B3)=-27, DS(B3)=77.
****
C3H4N2S L CAS 95-50-4 (821)
2-Aminothiazole; C3H2NS.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.50M U K1=0.74 B2=1.24 1982GKa (23956) 964

Zn++ gl KNO3 25°C 0.10M U T H K1=1.76 1978BBd (23957) 965
Data for 30, 35 and 40 C. DH(K1)=-15 kJ mol-1, DS(K1)=-17 J K-1 mol-1.
****
C3H4N2S HL Imidazolethiol CAS 872-35-5 (1823)
2-Mercaptoimidazole; C3H3N2.SH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M U K1=6.61 1977STc (23967) 966
****
C3H4O3 HL Pyruvic acid CAS 127-17-3 (1152)
2-Oxopropanoic acid; CH3.CO.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 2.00M U K1=0.72 B2=0.54 1980MKb (24030) 967

Zn++ gl KCl 25°C 0.50M U M 1970SFb (24031) 968
B(ZnL(Ala))=7.09
B(ZnL2(Ala))=11.08
B(ZnL2(Ala)2)=13.28
B(ZnL(Glu))=6.97
B(ZnL2(Glu))=10.64; B(ZnL2(Glu)2)=12.38

Zn++ sol KCl 25°C 0.50M U M K1=1.26 B2=1.98 1966LHb (24032) 969
Ternary complexes with glycine, b-alanine, isoleucine, alanine
---
Zn++ gl KCl 25°C 0.65M U T K1=1.28 1964LSa (24033) 970
At 10 C: K1=0.90

****

C3H4O4 H2L Malonic acid CAS 141-82-2 (79)
Propanedioic acid; CH2(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	35°C	0.10M	C	M	K1=2.82 K(ZnL+A)=4.63	1997PSb (24292)	971

H2A is thiamine orthophosphoric acid.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	oth/un	25°C	0.1M	U		K1=3.0	1995FFa (24293)	972

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	25°C	0.50M	C		K1=2.38	1989FRa (24294)	973

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	37°C	0.15M	C	M	K1=2.740 B2= 4.46 B(Zn2L2)=7.306 B(Zn(histamine)L)=7.627 B(ZnH(histamine)L)=13.792	1987BVa (24295)	974

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	30°C	0.20M	C	M	K1=2.69 K(Zn(asp)+L)=2.01 B(Zn(asp)L)=7.80	1981RSd (24296)	975

H2asp is aspartic acid.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	30°C	0.20M	C	M	K1=2.69 B(Zn(ida)L)=8.94 K(Zn(ida)+L)=1.96	1981RSe (24297)	976

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	ix	none	23°C	0.0	U		K1=2.75 B2=4.37	1980PSb (24298)	977

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	C	I	K1=5.57 B2=9.11 K3=2.8	1978RZa (24299)	978

Data available for 10 to 50% v/v dioxan/H2O

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	37°C	0.15M	C		K1=2.637 B3=5.786 B(ZnHL)=5.85 B(ZnHL3)=10.62 B(ZnH-1L3)=-0.98	1976MTa (24300)	979

B(ZnHL3)=14.70, B(Zn2L2)=7.26, B(Zn2HL2)=10.92

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C	M	K1=2.85 B(Zn(bpy)2L)=7.95	1975DOc (24301)	980

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	NaClO4	25°C	1.00M	U		K(Zn+HL)=0.59	1975TQa (24302)	981

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	dis	NaClO4	25°C	1.00M	U		K1=2.47 B2=3.80	1974MSc (24303)	982

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	U		K1=2.95	1970OVa (24304)	983

```
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=2.97   B2=4.45   1969PJb (24305) 984
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=2.95        1968OVa (24306) 985
                                          K(Zn+HL)=0.99
--------------------------------------------------------------------------------
Zn++       dis oth/un 25°C  0.0  U        K1=3.85   B2=5.95   1966RMb (24307) 986
--------------------------------------------------------------------------------
Zn++       EMF oth/un 25°C  0.0  U   H    K1=3.82        1965NAa (24308) 987
                                          K1=8.89-0.0415T+0.0000918T^(2)
Method: H electrode. 0-45 C. DH(K1)=12.5 kJ mol-1, DS=114.5 J K-1 mol-1
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 20°C 0.10M U        K1=2.97        1963CAa (24309) 988
                                          K(Zn+HL)=1.24
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.10M U        K1=2.7         1960YYa (24310) 989
--------------------------------------------------------------------------------
Zn++       con alc/w  25°C  20%  U        K1=4.40        1951JAa (24311) 990
Medium: 20.5% EtOH
--------------------------------------------------------------------------------
Zn++       EMF KCl    25°C 0.20M U        K1=2.78        1938CKa (24312) 991
                                          K(Zn+HL)=0.84
--------------------------------------------------------------------------------
Zn++       con oth/un 25°C  ->0  U        K1=3.68        1932MDa (24313) 992
--------------------------------------------------------------------------------
Zn++       con oth/un 25°C .001M U        K1=3.35        1931IRb (24314) 993
--------------------------------------------------------------------------------
Zn++       con oth/un 25°C 0.01M U        K1=3.26        1929RFa (24315) 994
********************************************************************************
C3H4O5                H2L    Tartronic acid   CAS 80-69-3  (839)
Hydroxypropanedioic acid; HO.CH(COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 20°C 0.10M U        K1=3.22        1963CAa (24609) 995
                                          K(Zn+HL)=1.91
********************************************************************************
C3H5NO2S2             H2L                    CAS 29596-83-6  (3558)
N-(Dithiocarboxy)aminoethanoic acid; HS.CS.NH.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       oth oth/un 25°C 0.10M U        K1=3.4    B2=6.6    1973RBc (24656) 996
                                          B3=8.9
********************************************************************************
C3H5NO4               H2L    Aminomalonic ac  CAS 1068-84-4  (2980)
2-Aminopropanedioic acid; HOOC.CH(NH2).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
```

Zn++ EMF oth/un 20°C ->0 U K1=6.48 1945SKa (24667) 997
Method: H electrode

****

C3H5N3S L CAS 108-33-8 (1428)
2-Amino-5-methyl-1,3,4-thiadiazole; C2N2S(NH2)(CH3)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=0.70	1982GLa (24681)	998

****

C3H5N3S L CAS 17467-35-5 (1425)
5-Amino-3-methyl-1,2,4-thiadiazole; C2N2S(NH2)(CH3)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=0.23	1982GLa (24687)	999

****

C3H5O2Br HL 3-Br-propionic CAS 590-92-1 (1314)
3-Bromopropanoic acid; Br.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	0.10M	U		K1=1.98	1969GPb (24704)	1000

0.1 M NaClO4 in 50% dioxane/H2O

****

C3H5O2Cl HL CAS 107-94-8 (1436)
3-Chloropropanoic acid; Cl.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	0.10M	U		K1=2.17	1969GPb (24726)	1001

0.1 M NaClO4 in 50% dioxane/H2O

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U		K1=2.17	1969SGa (24727)	1002

Medium: 50% dioxan, 0.1 M NaClO4

****

C3H5O2F HL (6999)
3-Fluoropropanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	0.10M	U		K1=1.99	1969GPb (24741)	1003

0.1 M NaClO4 in 50% dioxane/H2O

****

C3H5O2I HL 3-I-Propionic CAS 141-76-4 (1315)
3-Iodopropanoic acid; I.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	0.10M	U		K1=2.04	1969GPb (24748)	1004

0.1 M NaClO4 in 50% dioxane/H2O

****

C3H6 L Propylene CAS 115-07-1 (702)

Propene; CH3.CH:CH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	dis	none	40°C	0.0	U	T	K1=-2.0		1984DWa (24751)	1005

****

C3H6NO2Cl HL (8169)

3-Chloroalanine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=4.63 B3=10.9	B2= 8.65	1981TMe (24758)	1006

Also data for the schiff based formed with pyridoxal.

****

C3H6N2O2 L D-Cycloserine CAS 68-41-7 (907)

D-4-Amino-1,2-oxazolidine-3-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=1.00 B3=3.36 B4=4.36 B5=4.49	B2=2.11	1983GWa (24788)	1007
Zn++	gl	KCl	25°C	0.10M	U		K1=1.71 K(Zn+H-1L)=3.43 K(Zn+2H-1L)=6.09		1981BDb (24789)	1008
Zn++	gl	oth/un	25°C	0.01M	U		B2=6.0		1956NEb (24790)	1009

****

C3H6N2S L CAS 1779-81-3 (1400)

2-Amino-2-thiazoline; C3H4NS.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaCl	37°C	0.15M	U	M	K1=3.15 B(ZnL(Ala))=7.25		1982HFa (24829)	1010
Zn++	gl	NaCl	37°C	0.15M	C	M	K1=3.15 B(ZnL(Ala))=7.25		1981HMa (24830)	1011

****

C3H6O L Acetone CAS 67-64-1 (1912)

Propan-2-one, acetone; CH3.CO.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo

Zn++ cal non-aq 25°C 100% C IH 2002LVa (24853)1012
K(ZnP+L)=1.82
Medium: CCl4. ZnP: Zn(II)tetraphenylporphyrine. DH(ZnP+L)=-2.89 kJ mol-1, DS=25 J K-1 mol-1. Data for related ligands.

****

C3H6OS2 HL Xanthic acid CAS 151-01-9 (590)
(Ethoxy)dithiomethanoic acid; CH3.CH2O.CSSH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	vlt	KNO3	25°C	0.40M	C		B3=8.93		1984HSb (24867)	1013

Method: polarography.

Zn++	vlt	oth/un	25°C	1.0M	U		B3=4.63		1967KHc (24868)	1014

Medium: LiCl

****

C3H6O2 HL Propionic acid CAS 79-09-4 (35)
Propanoic acid; CH3.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	vlt	NaClO4	25°C	1.0M	C		K1=2.58	B2= 3.98	1995KDa (24948)	1015

Method: polarography. Medium pH 8.50.

Zn++	oth	NaClO4	25°C	2.0M	U		K1=0.99		1990FTa (24949)	1016

Methods: averaged results from potentiometric, polarographic and spectrophotometric measurements.

Zn++	gl	diox/w	25°C	50%	C	M	K1=2.40		1985STb (24950)	1017
							K(Zn(phen)+L)=2.29			
Zn++	vlt	oth/un	25°C	1.00M	U		K1=0.4	B2=1.15	1971TRb (24951)	1018
Zn++	sol	oth/un	25°C	1.00M	U		K1=0.42	B2=1.29	1971TRb (24952)	1019
Zn++	EMF	NaClO4	25°C	2.00M	U		K1=0.98	B2=0.96	1970FMa (24953)	1020
							B3=2.13			
Zn++	gl	diox/w	25°C	0.10M	U		K1=2.41		1969GPb (24954)	1021

0.1 M NaClO4 in 50% dioxane/H2O

Zn++	vlt	NaClO4	25°C	2.00M	U		K1=1.08	B2=1.18	1968FPa (24955)	1022
							B3=1.51			
							B4=1.36			
Zn++	gl	diox/w	25°C	50%	U	M	K1=2.41		1968GPd (24956)	1023
							K(Zn(bpy)+L)=2.38			

Medium: 50% dioxan, 0.1 M NaClO4

Zn++ EMF KCl 20°C 0.20M U K1=1.01 1938CKa (24957)1024
Method: H electrode
****
C3H6O2S H2L Thiolactic acid CAS 79-42-5 (366)
2-Mercaptopropanoic acid; CH3.CH(SH).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 30°C 0.10M U K1=7.64 B2=14.55 1988NDa (25119)1025

Zn++ gl NaClO4 25°C 0.10M U M 1985MSa (25120)1026
K(ZnL+dientriamine)=6.08

Zn++ gl NaClO4 25°C 0.10M U M K1=7.88 B2=14.71 1984MSb (25121)1027
K(ZnL+en)=4.40

Zn++ cal KNO3 25°C 0.50M U H K1=6.849 B2=14.336 1975BGa (25122)1028
B(Zn2L2)=17.157
B(Zn3L4)=34.742
DH(B2)=-13 kJ mol-1, DS(B2)=23 J mol-1 K-1, DH(Zn3L4)=79

Zn++ gl NaClO4 20°C 0.10M U T K1=8.03 B2=15.21 1974SSa (25123)1029
At 30 C: K1=7.80, B2=15.28; 40 C: K1=7.71, B2=15.34
****
C3H6O2S H2L CAS 107-96-0 (437)
3-Mercaptopropanoic acid; HS.CH2.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M M M 1989SHd (25195)1030
K(Zn(nta)+L)=4.05

Zn++ gl KNO3 25°C 0.50M U K1=3.44 B2=12.18 1976BCa (25196)1031
B(Zn2L2)=11.95
B(Zn3L4)=30.40

Zn++ gl KNO3 20°C 0.10M U T K1=6.32 B2=12.38 1968SGb (25197)1032
K1(30 C)=6.43, K2(30 C)=6.22. K1(40 C)=6.53, K2(40 C)=6.28.
Conductivity also used.
****
C3H6O2S HL CAS 2365-48-2 (8896)
Mercaptoethanoic acid methyl ester;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.10M C B2=8.87 2002CDc (25237)1033
B3=13.51
B(Zn2L2)=12.54
B(Zn2H-1L2)=5.04

B(Zn2H-3L2)=-11.27
B(Zn2H-4L2)=-20.89.

****

C3H6O3 HL CAS 81598-26-7 (2521)
3-Hydroxypropanoic acid; HO.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	2.00M	U		K1=0.86 B2=1.11 B3=1.43	1976KGa (25253)	1034
Zn++	EMF	NaClO4	25°C	2.00M	U		K1=0.86 B2=1.11 B3=1.43	1973FPa (25254)	1035

****

C3H6O3 HL L-Lactic acid CAS 79-33-4 (82)
L-2-Hydroxypropanoic acid; CH3.CH(OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sol	oth/un	20°C	2.10M	U	M	B(ZnL(oxalate))=6.88 B(ZnL2(oxalate))=7.16	1978KUa (25352)	1036
Zn++	dis	NaClO4	23°C	1.00M	U		K1=1.93 B2=2.83	1978PSb (25353)	1037
Zn++	gl	NaClO4	25°C	2.00M	U		K1=1.67 B2=2.65 B3=2.94	1976KGa (25354)	1038
Zn++	EMF	NaClO4	25°C	1.0M	U		K1=1.61 B2=2.85 K3=0.3	1967TGa (25355)	1039

Method: quinhydrone electrode.

Zn++	EMF	oth/un	25°C	->0	U		K1=2.20 B2=3.75	1954DMb (25356)	1040

Method: H electrode

Zn++	con	oth/un	25°C	?	U		K1=2.239	1954EMa (25357)	1041
Zn++	EMF	KCl	20°C	0.20M	U		K1=1.86	1938CKa (25358)	1042

Method: H electrode

****

C3H6O4 HL Glyceric acid CAS 473-81-4 (2520)
2,3-Dihydroxypropanoic acid; HO.CH2.CH(OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	2.00M	U		K1=1.46 B2=2.36 B3=2.69	1979KFa (25623)	1043
Zn++	EMF	KCl	20°C	0.20M	U		K1=1.80	1938CKa (25624)	1044

Method: H electrode

****

C3H7NO2 HL Alanine CAS 56-41-7 (86)
2-Aminopropanoic acid; H2N.CH(CH3).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	C	M	K1=5.47 B(ZnLA)=11.48	B2= 9.39	2000ZLa (25994)	1045

A=12-Pentyl-1,4,7,10-tetraazacyclotridecane-11,13-dione.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	alc/w	37°C	40%	C	M	K1=5.36 B(ZnLA)=10.06 K(ZnL+A)=4.70 K(ZnA+L)=4.84 B(ZnLC)=9.85	B2=10.00	1998AAa (25995)	1046

HC:2[o-hydroxyphenylazo]-2-cyanomethyl benzimidazole. 40% EtOH/H2O, I=0.15
H2A:5-[o-hydroxyphenylazo] barbituric acid. K(ZnL+C)=4.49, K(ZnC+L)=4.82.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	alc/w	37°C	40%	C		K1=5.36	B2=10.00	1997AAb (25996)	1047

Medium: 40% v/v EtOH/H2O, 0.15 M NaClO4.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	35°C	0.10M	C	M	K1=5.49 K(ZnL+A)=6.04		1997PSb (25997)	1048

H2A is thiamine orthophosphoric acid.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	vlt	NaClO4	25°C	1.00M	U		K1=4.96 K(Zn+HL)=0.26 K(Zn+2HL)=-0.28 K(Zn+HL+L)=4.79	B2= 8.97	1996DCa (25998)	1049

Method: Tast polarography.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.20M	U	T HM	K1=5.19 K(Zn(bpy)+L)=4.85		1996JLd (25999)	1050

Data for 25-45 C. DH(K1)=-5.4 kJ mol-1, DS(K1)=5.4 J K-1 mol-1;
DH(Zn(bpy)L)=-18, DS(Zn(bpy)L)=38.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.20M	M		K1=5.33		1996VBa (26000)	1051

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	30°C	0.10M	U		K1=5.01		1994RSa (26001)	1052

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.20M	M		K1=5.330	B2= 9.70	1994VBb (26002)	1053

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.20M	M		K1=5.330	B2= 9.70	1994VBc (26003)	1054

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C		K1=4.56 B(ZnH-1L)=-3.60 B(ZnH-1L2)=-0.15	B2=8.51	1993FBa (26004)	1055

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.20M	U	T M	K1=5.17 K(ZnA+L)=4.92	B2= 9.27	1993PPa (26005)	1056

A is 2,2'-bipyridylamine. Also data for 35 and 45 C.

Zn++ gl KCl 25°C 0.10M C IH T K1=4.63 B2=8.66 1993SKa (26006)1057
IUPAC evaluation. DH(K1)=-7.8 kJ mol-1, DH(B2)=-17.5

Zn++ gl NaClO4 25°C 0.20M U M K1=5.43 B2=9.81 1992VBa (26007)1058
B(ZnL(Trp))=9.92
B(ZnL(phen))=9.86

Zn++ gl NaCl 37°C 0.15M U M 1991HWa (26008)1059
B(ZnLA)=7.919
B(ZnHLA)=15.811
B(Zn2LA)=18.919
H2A is 7-oxabicyclo-[2,2,1]-hept-5-ene-2,3-dicarboxylic acid

Zn++ vlt KNO3 25°C 0.10M C M K1=4.73 B2= 8.80 1991KNb (26009)1060
B3=11.22
B(ZnAL)=6.38
B(ZnA2L)=9.06
B(ZnAL2)=10.53
Method: polarography, medium pH 8.5. HA is ethanoic acid.

Zn++ gl KNO3 37°C 0.15M C M K1=4.51 B2= 8.70 1990KKc (26010)1061
B(ZnH-2L)=-11.62
B(ZnHL(imidazole))=14.35
B(ZnL(imidazole)3)=12.32

Zn++ gl KNO3 37°C 0.15M U M K1=4.51 B2= 8.70 1990KKc (26011)1062
B(ZnH-2L)=-11.62
B(ZnA3L)=12.32
B(ZnHAL)=14.35
A: imidazole

Zn++ gl KNO3 35°C 0.10M U K1=4.50 1990RSe (26012)1063

Zn++ gl KNO3 25°C 0.10M C M 1989MAd (26013)1064
K(ZnA+L)=4.36
B(ZnAL)=11.21
H2A is N-(2-acetamido)imino diethanoic acid.

Zn++ gl KNO3 35°C 0.20M U M K1=4.80 B2=8.85 1989RVa (26014)1065
K(ZnA+L)=4.33
A=bis(imidazol-2-yl)methane

Zn++ gl KNO3 25°C 0.20M U M K1=5.29 1988BSc (26015)1066
K(Zn(bpy)+L)=4.90

Zn++ gl NaClO4 27°C 0.20M U M K1=5.17 B2= 9.27 1988PPc (26016)1067
K(ZnA+L)=4.92
A is 2,2'-dipyridylamine.

```
--------------------------------------------------------------------------------
Zn++       nmr none   20°C  0.0  U                      1986DHa (26017)1068
                                     K(ZnA+L)=2.5
                                     K(ZnA+HL)=0.6
In D2O. A = trien
--------------------------------------------------------------------------------
Zn++       nmr none   20°C  0.0  U                      1986DHb (26018)1069
                                     K(ZnA+HL)=0.30
                                     K(ZnA+L)=1.30
In D2O. A = tren
--------------------------------------------------------------------------------
Zn++       gl  NaCl   37°C 0.15M U    M                 1986XHa (26019)1070
                                     B(ZnL(His))=12.77
                                     B(ZnH-1L(His))=2.98
--------------------------------------------------------------------------------
Zn++       gl  NaCl   37°C 0.15M U        K1=4.440      1985CFb (26020)1071
                                     B(ZnH-1L)=-3.17
--------------------------------------------------------------------------------
Zn++       ISE KNO3   25°C 0.10M U    M   K1=5.01   B2=9.57   1985DVa (26021)1072
                                     B3=11.37
                                     K(ZnL+H)=8.10
                                     K(ZnH-1L+H)=8.52
                                     K(Zn(IDA)+L)=6.24
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=4.55       1985MKa (26022)1073
--------------------------------------------------------------------------------
Zn++       gl  oth/un 30°C 0.20M U    M   K1=5.17       1984JOb (26023)1074
                                     K(Zn(bpy)+L)=4.54
Medium: not stated.
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C    M                 1984KDb (26024)1075
                                     K(Zn(DOPA)+L)=4.13
                                     B(ZHL(DOPA))=24.26
                                     K(Zn(Dopamine)+L)=4.18
                                     B(ZnHL(Dopamine))=24.39
K(ZnA+L)=3.98, B(ZnHLA)=23.10;  K(ZnB+L)=4.12, B(ZnHLB)=23.87
A=Noradrenaline, B=Adrenaline, H3DOPA=3,4-dihydroxyphenylalanine
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C   H  T K1=4.65   B2=8.79   1983ACb (26025)1076
DH(K1)=-7.45; DH(B2)=-17.6 kJ mol-1.
--------------------------------------------------------------------------------
Zn++       vlt KNO3   30°C 0.30M C    M   K1=4.65   B2= 7.88  1983APa (26026)1077
                                     B(ZnAL)=6.99
                                     B(ZnAL2)=7.96
                                     B(ZnA2L)=8.68
Method: polarography. Medium: 0.30 M KNO3, pH 8.0. H2A is oxalic acid.
B(Zn(en)L)=10.33, B(Zn(en)L2)=11.76, B(Zn(en)2L)=13.95
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=4.62   B2=8.85   1980FSa (26027)1078
                                     K3=3.31
```

By NMR: K1=4.8

Zn++ gl NaClO4 25°C 0.10M C M 1980FSa (26028)1079
B(Zn(bpy)L)=9.72
K(Zn(bpy)+L)=4.42
B(ZnL(phen))=11.15
K(Zn(phen)+L)=4.60

Zn++ gl NaClO4 25°C 3.00M C K1=4.3 B2=8.0 1979BJa (26029)1080
B(ZnHL)=11.36
B(ZnHL2)=15.60
B(ZnH2L2)=22.6

Zn++ gl NaClO4 25°C 1.00M C K1=4.65 B2=8.75 1979BJb (26030)1081
B(ZnHL)=9.90
Alternative method: Ion selective electrode

Zn++ gl KNO3 30°C 0.10M M M K1=5.21 B2= 9.54 1978MSi (26031)1082
K(Zn(his)+L)=4.54
B(Zn(his)L)=11.21

Zn++ gl NaClO4 30°C 0.20M U K1=5.17 B2=9.27 1975JBb (26032)1083

Zn++ gl KNO3 25°C 1.00M U M T K1=4.55 B2=8.54 1972BPa (26033)1084
B3=10.65
B(ZnL(NH3))=7.17
B(ZnL(NH3)2)=9.22
B(ZnL2(NH3))=10.54

Zn++ gl none 25°C 0.00 U T T K1=4.952 B2=9.23 1971GKa (26034)1085
K1(35 C)=4.910, K2(35 C)=4.235

Zn++ gl KCl 25°C 0.05M U T H T K1=4.604 B2=8.67 1971GKa (26035)1086
K1(35 C)=4.562, K2(35 C)=4.026
DH(K1)=-9.6 kJ mol-1, DH(K2)=-7.1, DS(K1)=54 J K-1 mol-1, DS(K2)=54

Zn++ gl KCl 25°C 0.50M U M 1971LLa (26036)1087
B(ZnLA)=9.56
B(ZnL2A2)=16.23
HA=salicylaldehyde

Zn++ gl oth/un 25°C U K1=5.16 B2=9.26 1970CBb (26037)1088

Zn++ gl KCl 25°C 0.50M U T K1=4.57 B2=8.56 1970FEa (26038)1089
B3=10.59

Zn++ gl NaClO4 25°C 0.10M U T K1=4.51 1970GPa (26039)1090

Zn++ gl KCl 25°C 0.50M U T K1=4.56 B2=8.56 1970SFb (26040)1091
B3=10.58

```
--------------------------------------------------------------------------------
Zn++       gl  KNO3   37°C 0.15M U      T K1=4.57   B2=8.56   1969CPc (26041)1092
                                          B3=10.65
                                          K(ZnL+H2O=Zn(OH)L+H)=-8.53
--------------------------------------------------------------------------------
Zn++       oth NaClO4 25°C 0.50M U      T K1=4.67   B2=8.95   1967RPd (26042)1093
Method: optical rotation
--------------------------------------------------------------------------------
Zn++       vlt KCl    30°C 0.50M U        B2=8.85        1967SSk (26043)1094
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.50M U    M T K1=4.56   B2=8.52   1966LHc (26044)1095
                                          B3=10.51
                                          B(ZnAL)=6.79
                                          B(ZnBL)=6.32
                                          B(ZnAL2)=9.4
HA=pyruvic acid, HB=glyoxylic acid. B(ZnBL2)=10.17, B(ZnA2L2)=13.01,
B(ZnB2L2)=12.03
--------------------------------------------------------------------------------
Zn++       gl  KNO3   20°C 0.37M U        K1=4.63   B2=9      1966SWa (26045)1096
--------------------------------------------------------------------------------
Zn++       gl  KCl    40°C 0.20M U T H    K1=4.80   B2=8.66   1965SMb (26046)1097
K1=4.98(15 C), 4.88(25 C); K2=4.12(15 C), 3.96(25 C)
DH(K1)=-12.5 kJ mol-1, DS=50.2 J K-1 mol-1, DH(K2)=-18.0, DS=16.7
--------------------------------------------------------------------------------
Zn++       oth KNO3   20°C 0.10M U        K1=5.7    B2=9.60   1964JOa (26047)1098
                                          K3=2.3
Method: paper electrophoresis
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U      T K1=4.55   B2=8.65   1963IPa (26048)1099
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.01M U        K1=4.9         1954PEa (26049)1100
--------------------------------------------------------------------------------
Zn++       gl  oth/un 21°C 0.01M U        B2=9.1         1952PEa (26050)1101
Medium: 0.005-0.01 M ZnSO4
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C  ->0  U      T K1=5.21   B2=9.54   1951MOa (26051)1102
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.01M U        K1=5.16   B2=9.50   1950MMa (26052)1103
********************************************************************************
C3H7NO2                HL    B-Alanine        CAS 107-95-9  (575)
3-Aminopropanoic acid; H2N.CH2.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C TIH  T K1=4.15        1993SKa (26408)1104
IUPAC evaluation. DH(B2)=-17 kJ mol-1(T)
--------------------------------------------------------------------------------
Zn++       oth NaNO3  35°C 0.10M U    M                  1985VSa (26409)1105
                                          K(Zn(NTA)+L)=3.42
By electrophoresis
```

```
--------------------------------------------------------------------------------
Zn++       vlt KNO3   30°C  0.3M C    M   K1=4.25   B2= 6.55  1983APa (26410)1106
                                          B(ZnAL)=6.47
                                          B(ZnAL2)=6.93
                                          B(ZnA2L)=7.15
Method: polarography. Medium: 0.30 M KNO3, pH 8.0. H2A is oxalic acid.
B(Zn(en)L)=9.80, B(Zn(en)L2)=10.10, B(Zn(en)2L)=12.15
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  20°C 0.10M U        K1=4.10        1978LEb (26411)1107
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C  dil  U        K1=5.15        1970CBb (26412)1108
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.50M U    M   K1=3.90   B2=7.20   1970CBb (26413)1109
                                          B3=10.40
                                          B(ZnLA)=8.40
                                          B(ZnL2A2)=16.20
HA=salicylaldehyde
--------------------------------------------------------------------------------
Zn++       vlt KCl    30°C 0.50M U        K1=4.2    B2=7.0    1967SSk (26414)1110
--------------------------------------------------------------------------------
Zn++       cal KNO3   22°C 0.10M U   H                  1967SSl (26415)1111
DH(B2) < -17.1 kJ mol-1
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.50M U    M   K1=3.9         1966LHb (26416)1112
                                          B(ZnAL)=7.08
                                          B(ZnA2L2)=12.1
HA=pyruvic acid
--------------------------------------------------------------------------------
Zn++       gl  KCl    40°C 0.20M U T      K1=3.82        1965SMb (26417)1113
K1=4.10(15 C)
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U        K1=4           1954IRa (26418)1114
********************************************************************************
C3H7NO2                HL    DL-Alanine       CAS 302-72-7  (189)
DL-2-Aminopropanoic acid; H2N.CH(CH3).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaCl   37°C 0.15M U        K1=4.44        1982HFa (26528)1115
                                          K(Zn+L=Zn(OH)L+H)=-3.18
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.15M U    M   K1=4.71        1982VDa (26529)1116
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C    M   K1=4.56   B2=8.51   1981GEa (26530)1117
                                          B(ZnH-1L)=-3.60
                                          B(ZnH-1L2)=-0.2
Ternary complexes with His-L-Ala and His-D-Ala
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  30°C 0.20M C    M   K1=4.81   B2= 8.83  1981RSd (26531)1118
                                          K(Zn(asp)+L)=3.94
```

B(Zn(asp)L)=9.73

H2asp is aspartic acid.

Zn++ gl KCl 25°C 0.20M C M 1979KGa (26532)1119

B(ZnHLA)=24.39

B(ZnLA)=13.96

H2A=dopamine.

****

C3H7NO2 L Methylglycinate CAS 616-34-3 (1738)

Glycine methyl ester; NH2.CH2.COOCH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	non-aq	15°C	100%	U	M	1993MEa (26554)1120		
							K(ZnA+L)=3.54		
							K(ZnB+L)=1.18		

In chloroform. A=5,15-Bis(2-hydroxy-1-naphthyl)-2,3,7,8,12,13,17,18-octa-ethylporphine, B=5,15-Bis(2-methoxy-1-naphthyl) deriv. of A.

****

C3H7NO2 HL Sarcosine CAS 107-97-1 (87)

N-Methyl-2-aminoethanoic acid; CH3.NH.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	21°C	0.10M	M	I	K1=4.31 B2=8.42	1985LWb (26589)1121	
							B(ZnH-1L)=-1.07		
							B(ZnH-1L2)=1.15		

Values in 50% methanol-water (v/v) are also given.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C	M	K1=4.53 B2=8.33	1975DOb (26590)1122	
							B(ZnLbpy)=9.15		
							B(ZnL(bpy)2)=12.75		
							B(ZnL2bpy)=12.69		

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.50M	U	M	K1=4.31 B2=8.3	1966LHb (26591)1123	
							B(ZnAL)=4.6		
							B(ZnAL2)=9.85		
							B(ZnA2L2)=10.1		

HA=pyruvic acid

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	oth/un	20°C	0.01M	U		B2=8.8	1952PEa (26592)1124	

Medium: ZnSO4

****

C3H7NO2 HL (6927)

N-Methylacetohydroxamic acid; CH3.CO.N(OH)CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C		K1=4.51 B2= 8.35	2000FEc (26617)1125	

****

C3H7NO2 HL (7502)
Propanohydroxamic acid; C2H5CONHOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C		K1=5.07 B2= 9.51 B3=11.6 B(ZnH-1L2)=-0.32	2000FEc (26629)	1126

****

C3H7NO2S H2L Cysteine CAS 52-90-4 (96)
2-Amino-3-mercaptopropanoic acid; H2N.CH(CH2.SH)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	37°C	0.15M	C	M	B(ZnHLA)=23.24 B(ZnLA)=16.34 K(ZnHA+L)=9.63 K(ZnL+A)=6.70	1996NAa (26710)	1127

HA is DL-2,3-diaminopropanoic acid, HC is DL-2,4-diaminobutanoic acid.
B(ZnH2LC)=30.11,B(ZnHLC)=24.37,B(ZnLC)=17.18,K(ZnHC+L)=10.15,K(ZnL+C)=7.54

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	37°C	0.15M	C	M	B(Zn(orn)H2L)=30.78 B(Zn(orn)HL)=24.05 B(Zn(orn)L)=16.35 K(Zn(orn)H+L)=9.49	1996NAa (26711)	1128

K(ZnL+orn)=6.71, K(Zn(orn)+L)=9.66.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	37°C	0.15M	C	TI R	B2=17.9	1995BEa (26712)	1129

IUPAC evaluation. Tentative values: 0.2 M KCl, 25 C:K1=8.2, B2=18.05,
B(ZnHL)=14.76, B(ZnHL2)=24.43, B(ZnH2L2)=29.93, B(Zn3L4)=42.11

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	M		K1=8.97 B2=17.86	1993GVa (26713)	1130
Zn++	gl	NaClO4	37°C	0.15M	C	M	K1=9.64 B2=17.81 B(ZnHL2)=24.63 B(ZnH2L2)=29.93 B(ZnH2L(his))=27.42 B(ZnHL(his))=22.07	1993NAc (26714)	1131

B(ZnL(his))=15.97. Also data for ternary complexes with histamine.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	37°C	0.15M	C	M	K1=9.64 B2=17.81 B(ZnHL2)=24.63 B(ZnH2L2)=29.93	1993NAc (26715)	1132

Data for ternary complexes with imidazole, histamine and histidine.
B(ZnH2L(his))=27.42, B(ZnHL(his))=22.07, B(ZnL(his))=15.97, K(ZnL+his)=6.3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	37°C	0.15M	U	M	B(ZnHLA)=19.632	1991HWa (26716)	1133

```
                                        B(ZnH2LA)=25.603
                                        B(ZnH3LA)=29.766
H2A is 7-oxabicyclo-[2,2,1]-hept-5-ene-2,3-dicarboxylic acid
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M M    M                  1989SHd (26717)1134
                                        K(Zn(nta)+L)=6.51
                                        K(Zn(nta)+H+L)=14.02
-------------------------------------------------------------------------------
Zn++       gl  NaCl   37°C 0.15M U    M T B2=17.77       1985CFb (26718)1135
                                        B(ZnHL)=14.67
                                        B(Zn2L3)=30.26
                                        B(Zn2HL3)=36.14
                                        B(Zn2H2L3)=41.73
Ternary complex with glutaminate
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M U        K1=9.17   B2=17.29  1980AMa (26719)1136
                                        B(ZnHL2)=23.32
                                        B(Zn2L3)=20.75
-------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M U        K1=8.2    B2=18.05  1979SGa (26720)1137
                                        B(ZnHL)=14.76
                                        B(ZnHL2)=24.43
                                        B(ZnH2L2)=29.93
                                        B(Zn2L3)=29.20
B(Zn3L4)=42.11,  B(Zn3HL4)=49.01
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M C      T B2=17.91       1978BMa (26721)1138
                                        B(ZnHL)=14.60
                                        B(ZnHL2)=24.11
                                        B(Zn3L4)=42.28
                                        B(Zn3H2L4)=54.08
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 3.00M C        B2=19.39       1976CWa (26722)1139
                                        B(ZnHL2)=25.86
                                        B(ZnH2L2)=31.88
                                        B(Zn3L4)=46.25
                                        B(Zn3HL4)=52.50
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U    M   K1=9.24        1974RMa (26723)1140
Mixed complexes with HPO4(B=14.14), citrate(16.59) and NTA(26.2)
-------------------------------------------------------------------------------
Zn++       nmr oth/un 32°C 0.50M U        K1=8.91   B2=17.61  1973HAb (26724)1141
                                        K(Zn+HL)=4.80
35Cl probe
-------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U        K1=9.19   B2=18.19  1972RJa (26725)1142
                                        K(Zn+HL+L)=24.47
DL cysteine: K1=9.15, B2=18.18, K(Zn+HL+L)=24.50
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 20°C 0.10M U        B2=18.21       1968PSe (26726)1143
```

```
                                        B(ZnHL2)=24.79
                                        B(ZnH2L2)=30.6
                                        B(Zn3L4)=43.5
                                        B(Zn3HL4)=49.5
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=9.04   B2=17.54  1964LMa (26727)1144
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.15M U        K1=9.86   B2=18.70  1955LMa (26728)1145
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C 0.00  U        B2=17.1        1953PEa (26729)1146
Medium: 0.0025 M Hg(NO3)2
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C 0.01M U        B2=18.2        1952ALa (26730)1147
********************************************************************************
C3H7NO3                HL    Serine           CAS 56-45-1  (49)
2-Amino-3-hydroxypropanoic acid; H2N.CH(CH2.OH)COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M   K1=5.10        1999AAa (27039)1148
                                        K(ZnL+A)=3.61
                                        B(ZnLA)=8.71
                                        K(ZnL+B)=3.52
                                        B(ZnLB)=8.62
HA=MOPSO, HB=MOPS.
--------------------------------------------------------------------------------
Zn++       vlt NaClO4 25°C  1.0M C    M                  1999VKc (27040)1149
                                        B(ZnLA)=5.12
                                        B(ZnLA2)=8.18
                                        B(ZnL2A)=10.40
Method: polarography. Medium pH: 8.5. A is 4-picoline.
--------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M C    M   K1=4.50   B2= 8.75  1998ZWa (27041)1150
                                        B(ZnH-1L2)=0.56
                                        B(ZnH-2L2)=-7.93
Data for ternary complexes with 3,3,9,9-tetramethyl-4,8-diazaundecane-
2,10-dione dioxime
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M M    M   K1=6.40        1996AEa (27042)1151
Data for ternary complexes with dipicolinic acid.
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M C T    R K1=4.47   B2=8.29   1995BEa (27043)1152
                                        B(ZnH-1L2)=-1.14
IUPAC evaluation
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C  1.0M U    M   K1=4.41   B2= 8.05  1995KDa (27044)1153
                                        K3=2.21
                                        B(ZnLA)=6.43
                                        B(ZnLA2)=8.91
                                        B(ZnL2A)=10.31
```

Medium pH 8.50. HA is propanoic acid.

Zn++ gl NaClO4 25°C 0.20M U T M K1=5.06 B2= 9.17 1993PPa (27045)1154
K(ZnA+L)=4.71

A is 2,2'-bipyridylamine. Also data for 35 and 45 C.

Zn++ gl KNO3 25°C 0.10M U I K1=4.47 B2=8.66 1990RAb (27046)1155

Data also for 10% w/w EtOH/H2O (K1=4.72; B2=8.79) and 25% (5.24; 9.56)

Zn++ gl KNO3 25°C 0.10M C M 1989MAd (27047)1156
K(ZnA+L)=4.17
B(ZnAL)=11.02

H2A is N-(2-acetamido)imino diethanoic acid.

Zn++ gl KNO3 35°C 0.20M U M K1=4.66 B2=8.49 1989RVa (27048)1157
K(ZnA+L)=4.13

A=bis(imidazol-2-yl)methane

Zn++ gl KNO3 25°C 0.10M M M 1989SHd (27049)1158
K(Zn(nta)+L)=2.99

Zn++ gl NaClO4 27°C 0.20M U M K1=5.06 B2= 9.17 1988PPc (27050)1159
K(ZnA+L)=4.71

A is 2,2'-dipyridylamine.

Zn++ gl KNO3 25°C 0.10M U K1=4.62 1985MKa (27051)1160

Zn++ gl oth/un 30°C 0.20M U M K1=5.06 1984JOb (27052)1161
K(Zn(bpy)+L)=4.79

Medium: not stated.

Zn++ gl NaClO4 37°C 0.15M C K1=4.475 B2= 8.26 1982BKc (27053)1162
B(ZnH-1L2)=10.250

Zn++ gl KCl 25°C 0.20M C M T K1=4.45 B2=8.16 1981GEa (27054)1163
B(ZnH-1L)=-3.73
B(ZnH-1L2)=-2.4

B(ZnL(His))=10.14

Zn++ gl NaNO3 30°C 0.20M C M K1=4.68 B2= 8.39 1981RSd (27055)1164
K(Zn(asp)+L)=3.89
B(Zn(asp)L)=9.68

H2asp is aspartic acid.

Zn++ gl NaNO3 30°C 0.20M C M K1=4.68 B2= 8.39 1981RSe (27056)1165
B(Zn(ida)L)=10.56
K(Zn(ida)+L)=3.58

Zn++ vlt KNO3 25°C 0.50M U T H K1=4.60 B2=9.12 1979SSc (27057)1166

```
Zn++       gl  NaClO4 25°C 3.00M U        K1=4.90   B2=9.28   1973WIa (27058)1167
                                         B3=11.91
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.05M U T      K1=4.65   B2=8.68   1972GMb (27059)1168
K1(20 C)=4.69, K2=4.07; K1(30 C)=4.61, K2=4.00; K1(35 C)=4.58, K2=3.96
--------------------------------------------------------------------------------
Zn++       gl  KNO3   37°C 0.15M U    M T K1=4.47   B2=8.31   1969PSb (27060)1169
                                         B3=10.56
                                         B(ZnLA)=9.67
                                         B(ZnLA2)=13.04
                                         B(ZnL2A)=13.04
A=histamine
--------------------------------------------------------------------------------
Zn++       gl  KNO3   40°C 0.20M U T H    K1=4.58   B2=8.22   1968RMb (27061)1170
K1=4.71(15 C),4.66(25 C); K2=3.77(15 C),3.72(25 C)
DH(B2)=-18.0 kJ mol-1, DS=100 J K-1 mol-1
--------------------------------------------------------------------------------
Zn++       cal KNO3   22°C 0.10M U   H                  1967SSl (27062)1171
DH(B2) < 28 kJ mol-1
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.10M U  I     K1=4.94   B2=9.22   1964SYa (27063)1172
I=0: K1=5.30,K2=4.45; I=0.01: K1=5.22,K2=4.46; I=0.02: K1=5.19,K2=4.45;
I=0.05: K1=5.08,K2=4.40
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C .005M U        B2=8.6         1953PEa (27064)1173
Medium: 0.005 M ZnSO4
********************************************************************************
C3H7NO3                HL                      CAS 2786-22-3  (1893)
2-Aminooxypropanoic acid;CH3.CH(O.NH2).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=2.34        1985WTa (27209)1174
********************************************************************************
C3H7NO3                HL    iso-Serine       CAS 632-12-2  (351)
DL-3-Amino-2-hydroxypropanoic acid; H2N.CH2.CH(OH).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M                  1988ACa (27226)1175
                                         B(ZnHL)=11.03
                                         B(Zn2H-2L2)=-3.50
                                         B(ZnH-2L2)=-9.1
Also B(CoZnH-2L2)=-3.74.
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U        B2=15.821      1976BMe (27227)1176
                                         B(ZnH2L)=24.019
                                         B(Zn2L2)=22.779
                                         K(Zn+L=ZnH-1L+H)=-0.496
********************************************************************************
```

C3H7NO5S H2L Cysteic acid CAS 23537-25-9 (2603)
2-Amino-3-sulfonatopropanoic acid; HO3S.CH2.CH(NH2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	37°C	0.15M	C	M	B(ZnHLA)=17.86 B(ZnLA)=11.13 K(ZnHA+L)=4.25 B(ZnH2LC)=25.95	1996NAa	(27249)1177

HA is DL-2,3-diaminopropanoic acid, HC is DL-2,4-diaminobutanoic acid.
B(ZnHLC)=18.92, K(ZnHC+L)=4.36.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	37°C	0.15M	C	M	B(Zn(orn)H2L)=25.95 B(Zn(orn)HL)=18.92 K(ZnH(orn)+L)=4.36	1996NAa	(27250)1178

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	37°C	0.15M	C	M	K1=3.77 B2= 6.02	1993NAc	(27251)1179

Data for ternary complexes with imidazole, histamine and histidine.
B(ZnHL(his))=17.63, B(ZnL(his))=11.15, K(ZnL+his)=7.38, K(Zn(his)+L)=4.74.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=5.60 B2=9.70	1979DZb	(27252)1180

****
C3H7NS2 HL CAS 128-04-1 (2125)
Dimethyldithiocarbamic acid; (CH3)2N.CSSH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	EMF	non-aq	25°C	100%	U		B2=11.4	1987USa	(27268)1181

Medium: DMF, 0.1 M LiClO4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	dis	oth/un	25°C	0.01M	U		B2=9.1	1973SSa	(27269)1182

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sol	non-aq	25°C	100%	U	HM	K(ZnL+A)=3.41 K(ZnL+B)=2.58 K(ZnL+C)=3.16 K(ZnL+D)=3.4	1965CRa	(27270)1183

Medium:toluene. A=ethylmine, B=t-butylamine, C=n-butylamine, D=pyrrolidine
DH(ZnL+B)=-41 kJ mol-1, DH(ZnL+C)=-31. K(ZnL+aniline)=0.04

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sol	non-aq	25°C	100%	U	HM	K(ZnL+A)=1.91 K(ZnL+B)=2.34 K(ZnL+C)=1.05 K(ZnL+D)=3.11	1965CRa	(27271)1184

Medium:toluene. A=pyridine, B=4-Mepyridine, C=2-Mepyridine, D=morpholine
DH(ZnL+A)=-32 kJ mol-1, DH(ZnL+B)=-40, DH(ZnL+C)=-29. Other ternary also
****

C3H7N5 L (6903)
5-(2-Aminoethyl)-1H-tetrazole; NH2.CH2.CH2.CHN4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaNO3	20°C	0.10M	U		K1=4.73		1978LEb (27289)	1185

****

C3H7O5P H3L CAS 5926-41-4 (3549)
2-Phosphonopropanoic acid; CH3.CH(PO3H2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	R4N.X	25°C	0.25M	U		K1=2.96		1957WBa (27297)	1186
Medium: 0.1-0.4 M (C3H7)4NI										

****

C3H7O6P H2L (6830)
3-Hydroxy-2-oxopropylphosphoric acid; CH2(OH).CO.CH2.OPO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	U		K1=2.01		1992LCb (27317)	1187

****

C3H7O7P H3L CAS 28474-06-8 (3552)
D-2,3-Dihydroxypropanoic acid 2-phosphate (D-2-phosphoglyceric acid)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	R4N.X	25°C	0.25M	U		K1=3.40		1957WBa (27327)	1188
Medium: 0.1-0.4 M (C3H7)4NI										

****

C3H8NO5P H3L 3-Phosphono-Ala CAS 20263-06-3 (1509)
2-Amino-3-phosphonatopropanoic acid; (H2O3P)CH2.CH(NH2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C		K1=7.15	B2=12.16	1989KFb (27344)	1189
							B(ZnHL)=13.1			
Zn++	gl	KNO3	25°C	0.20M	C		K1=6.63	B2=11.79	1978MAb (27345)	1190
							K(Zn+HL)=2.16			
							K(ZnL+HL)=2.45			

****

C3H8NO5P H3L CAS 23052-80-4 (1508)
3-Amino-3-phosphonatopropanoic acid; (H2O3P)(NH2)CH.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C		K1=6.62	B2=10.82	1989KFb (27358)	1191
							B(ZnH2L)=17.92			
							B(ZnHL)=13.03			

```
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 1.00M C        K1=5.02   B2=9.81   1989MSb (27359)1192
                                          K(ZnL+H)=6.30
                                          K(ZnL2+H)=6.89
********************************************************************************
C3H8NO5P              H3L    Glyphosate       CAS 1071-83-6  (1617)
N-(Phosphonomethyl)glycine; H2O3P.CH2.NH.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   30°C 0.10M U T HM   K1=12.64  B2=21.59  1997RPc (27386)1193
                                          K(ZnL+gly)=3.06
                                          K(ZnL+ala)=3.00
                                          K(ZnL+A)=8.34
                                          K(Zn(phen)+L)=12.33
Data for 20-50 C. DH(K1)=-40 kJ mol-1, DS(K1)=110 J K-1 mol-1, DH(K2)=-30,
DS(K2)=70. H2A is catechol. K(Zn(bpy)+L)=12.10, K(Zn(ida)+L)=10.38.
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C  0.1M C        K1=8.74   B2=11.69  1985MMa (27387)1194
                                          B(ZnHL)=7.99
                                          K(ZnL(OH)+H)=-0.99
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M M        K1=8.4         1978LCa (27388)1195
********************************************************************************
C3H8NO6P              H3L    Phosphoserine    CAS 17885-08-4  (1865)
Serine dihydrogenphosphate, O-Phosphoserine; NH2.CH(CH2.OPO3H2).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   15°C 0.15M C        K1=5.89   B2=10.35  1983MBa (27441)1196
                                          K(Zn+HL)=2.00
Data for LL. For DL: K1=5.86, K2=4.21, K(Cu+HL)=1.91
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=5.88   B2= 9.72  1981TMe (27442)1197
Also data for the schiff based formed with pyridoxal.
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.20M C    M   K1=5.82   B2=10.11  1979MBa (27443)1198
                                          K(Zn+HL)=2.01
                                          K(ZnL+HL)=2.20
                                          B(ZnH(histamine)L)=18.26
                                          K(Zn(histamine)+L)=5.83
K(Zn(phen)+L)=5.38, K(Zn(bpy)+L)=5.60
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.20M C        K1=5.80   B2=10.05  1978MAb (27444)1199
                                          K(Zn+HL)=1.96
                                          K(ZnL+HL)=1.94
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.20M C        K1=5.80   B2=10.05  1978MAc (27445)1200
                                          K3=2.20
                                          K(Zn+HL)=1.96
```

K(ZnHL+L)=1.94
K(ZnL+H)=5.88
****
C3H8N2O2 HL CAS 71292-18-7 (356)
2,3-Diaminopropanoic acid; H2N.CH2.CH(NH2).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 37°C 0.15M U M 1990NTb (27542)1201
B(Zn(glu)HL)=19.48
B(Zn(glu)L)=10.72
K(Zn(glu)+H+L)=14.09
K(ZnHL+glu)=5.87
K(Zn(glu)+L)=5.33.

Zn++ gl NaClO4 37°C 0.15M C M B2=13.70 1986NPa (27543)1202
B(ZnHL)=13.61
B(ZnH2L2)=25.70
B(ZnH2LA)=25.44, A=histamine. B(ZnH2L(His))=25.66

Zn++ gl KCl 25°C 0.20M C K1=6.31 B2=11.66 1981FGb (27544)1203
B(ZnHL)=12.59
B(ZnH2L2)=24.62
B(ZnHL2)=18.43
B(ZnH-1L)=0.94

Zn++ gl NaCl 37°C 0.15M C M K1=6.38 B2=11.67 1981JMa (27545)1204
B(ZnL(His))=12.04
B(ZnHL)=12.44
B(ZnHL(His))=18.50
B(ZnHL2)=17.97

Zn++ gl oth/un 20°C 0.01M U B2=11.5 1952ALa (27546)1205
****
C3H8N2O2 HL Ala-hydroxamic CAS 16707-85-0 (1582)
2-Amino-N-hydroxypropanamide, Alanine hydroxamic acid; CH3.CH(NH2).CO.NH.OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.20M C M K1=5.29 B2= 9.32 2002KKa (27571)1206
B(ZnHL)=12.27
B(Zn2L3)=18.77
B(ZnH-1L)=-2.26
B(ZnL(dien))=13.60
B(ZnH-1L(dien))=2.89, B(ZnHL(trien))=24.88, B(ZnL(trien))=17.32,
B(ZnH-1L(trien))=6.69.

Zn++ gl KCl 25°C 0.20M C K1=5.29 B2=9.32 1989FSa (27572)1207
B(ZnHL)=12.27
B(ZnH-1L)=-2.26

B(Zn2L3)=18.77

****

C3H8N2O2 HL (6666)

beta-Alaninehydroxamic acid; NH2.CH2.CH2.CO.NHOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C	M	B2=11.19 B(ZnHL)=14.66 B(ZnH2L2)=28.51 B(ZnHL2)=20.36 B(ZnH-1L2)=1.16 B(ZnHL(dien))=22.77, B(ZnL(dien))=14.04, B(ZnH2L(trien))=32.12, B(ZnHL(trien))=27.04, B(ZnL(trien))=17.75.	2002KKa (27601)	1208
Zn++	gl	KCl	25°C	0.20M	C		B2=10.85 B(ZnHL)=14.16 B(ZnH2L2)=27.59 B(ZnHL2)=19.65 B(ZnH-1L2)=1.05	1993KFa (27602)	1209
Zn++	gl	KCl	25°C	0.20M	C		B2=11.19 B(ZnHL)=14.66 B(ZnH-1L2)=1.16 B(ZnHL2)=20.36 B(ZnH2L2)=28.51	1993KKb (27603)	1210

****

C3H8OS2 H2L BAL CAS 59-52-9 (379)

2,3-Dimercaptopropan-1-ol; HS.CH2.CH(SH).CH2(OH)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	30°C	0.10M	U		K1=13.48 B2=23.3	1961LTa (27656)	1211

****

C3H8O2S HL 1-Thioglycerol CAS 96-27-5 (1848)

3-Mercapto-1,2-propanediol HS.CH2.CH(OH).CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	20°C	0.10M	U	TI	K1=10.26 B2=28.29	1986NDb (27704)	1212
Zn++	cal	KNO3	25°C	0.50M	U	H	B(Zn2L3)=18.09 B(Zn3L6)=37.805 B(Zn4L9)=56.54 B(Zn5L12)=74.74 B(Zn6L15)=93.87. DH(Zn6L15)=-305.4 kJ mol-1, DH(Zn3L6)=-154.8, DH(Zn4L9)=-133.9, DH(Zn5L12)=-125.5	1974BHa (27705)	1213
Zn++	gl	KNO3	25°C	0.50M	U			1971BPc (27706)	1214

B(2Zn+3L)=18.00
B(3Zn+6L)=37.85
B(4Zn+9L)=56.75
B(5Zn+12L)=74.75
B(6Zn+15L)=95.84

****

C3H8O3S3 H3L (1324)
1,3-Dimercaptopropanesulfonic acid; HS.CH2.CH2.CH(SH).SO3H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	EMF	KNO3	20°C	0.10M	U		K1=14.49 B2=25.71	1967PRa	(27761)1215

****

C3H8O3S3 H3L Unithiol CAS 74-61-3 (1271)
2,3-Dimercaptopropanesulfonic acid; HS.CH2.CH(SH).CH2.SO3H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	37°C	0.15M	U		B2=27.56	1984JSb	(27772)1216
							B(Zn2L2)=33.58		
							B(Zn2HL3)=52.63		
Zn++	EMF	KNO3	20°C	0.10M	U		K1=14.09 B2=24.96	1967PRa	(27773)1217

****

C3H8O10P2 H5L (6577)
2,3-Diphospho-D-glyceric acid; H2O3PO.CH2.CH(COOH)OPO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C		B2=7.59	1990SKc	(27801)1218
							B(ZnHL)=10.38		
							B(ZnH2L2)=19.98		
							B(ZnHL2)=14.53		
							B(ZnH-1L2)=-0.85		

****

C3H9N L n-Propylamine CAS 107-10-8 (2356)
1-Aminopropane; H2N.CH2.CH2.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	ISE	R4N.X	25°C	2.00M	U		K1=2.42 B2=4.85	1969PMc	(27818)1219
							K3=2.53		
							K4=2.11		
Medium: NH4NO3									
Zn++	sol	oth/un	19°C	0.01M	U		B2=5.5	1933TAa	(27819)1220
							B4=6.1		

****

C3H9N L iso-Propylamine CAS 75-31-0 (157)
2-Propylamine; CH3.CH(CH3).NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	ISE	R4N.X	25°C	2.00M	U		K1=2.37 K3=2.47 K4=2.30	B2=4.67	1970PMa (27839)	1221

Medium: NH4NO3

C3H9NO L CAS 2799-16-8 (905)

1-Aminopropan-2-ol; H2N.CH2.CH(OH).CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	vlt	KNO3	25°C	0.10M	U		K1=6.54 B3=8.70	B2=7.34	1981AAa (27872)	1222

C3H9NO L CAS 109-83-1 (899)

2-(Methylamino)ethanol; HO.CH2.CH2.NH.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	vlt	KNO3	25°C	0.10M	U		K1=5.30 B3=6.95	B2=6.20	1980AAa (27885)	1223
Zn++	gl	oth/un	25°C	0.10M	U		K1=3.9 K3=2.4 K4=2.2	B2=6.80	1965DOa (27886)	1224

C3H9NO L CAS 156-87-6 (906)

3-Aminopropan-1-ol; HO.CH2.CH2.CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	vlt	KNO3	25°C	0.10M	U		K1=7.88		1981AAa (27914)	1225

C3H9N2O4P H2L CAS 30211-73-5 (7117)

Glycylaminomethylphosphonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=4.17 B(ZnHL)=10.04		1995HLa (27965)	1226

C3H9N3O L CAS 19728-65-5 (2703)

2-(Methylamino)acetamidoxime; CH3.NH.CH2.C(:NOH)NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	1.00M	C		K1=3.53 B(ZnH-1L2)=-2.23	B2=6.31	1986OSa (27974)	1227

****

C3H9N3O2 HL CAS 471915-95-4 (8549)
2,3-Diamino-N-hydroxypropanamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C		B2=11.20 B(ZnHL)=13.58 B(ZnH2L2)=26.29 B(ZnHL2)=19.64 B(ZnH-1L2)=0.25	2002ECa	(27981)1228

****

C3H9O4P H2L (6694)
(Phosphonylmethoxy)ethane; H2O3P.CH2.O.CH2.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	M		K1=2.74	1992SCa	(28015)1229

****

C3H9O6P HL CAS 17181-54-3 (7537)
1,3-Dihydroxypropyl-2-phosphoric acid; HOCH2CH(OPO3H2)CH2OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	25°C	0.15M	U		K1=2.137 B(ZnH-1L)=-5.63	1990KLb	(28028)1230

****

C3H9O6P H2L CAS 57-03-4 (2984)
2,3-Dihydroxypropylphosphoric acid, Glycerol 1-phosphate; HO.CH2.CH(OH).CH2.OPO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	U		K1=2.13	1992LCb	(28039)1231

****

C3H10NO3P H2L (1986)
1,1-Dimethyl-1-aminomethylphosphonic acid; H2N.C(CH3)2.PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	U		K1=6.13 B2=11.97 K(Zn+HL)=3.44	1969DMd	(28070)1232

****

C3H10NO3P H2L CAS 35869-68-2 (1989)
Dimethylaminomethylphosphonic acid; (CH3)2N.CH2.PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=5.45 K(ZnL+H)=7.46	1993SKc	(28095)1233

****

C3H10N2 L CAS 78-90-0 (2905)
1,2-Diaminopropane; CH3.CH(NH2)CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	vlt	NaClO4	30°C	1.5M	C		K1=12.60	B2=15.00	1980GCb	(28151)1234

Method: polarography.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	30°C	0.15M	U	M	K1=6.66		1974PBb	(28152)1235
							B(ZnL(bpy))=6.12			

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	25°C	var	U				1962NMc	(28153)1236

K1=5.69+0.458I-0.245I^(3/2)-0.0286I^(2). In I NaClO4: K1=5.69+0.908I-0.851I^(3/2)+0.285I^(2), K2=4.94+1.31I-1.07I^(3/2)+0.325I^(2)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	30°C	0.50M	U		K1=5.89	B2=10.87	1945CMa	(28154)1237
							K3=1.70			

****

C3H10N2 L Propanediamine CAS 109-76-2 (123)
1,3-Diaminopropane; H2N.CH2.CH2.CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	20°C	0.10M	U				1991WBa	(28266)1238
							B(ZnHL)=14.96			
							B(ZnHL2)=20.22			

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	nmr	none	20°C	0.0	U				1986DHa	(28267)1239
							K(ZnA+L)=2.2			
							K(ZnA+HL)=1.6			

In D2O. A = trien

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	nmr	none	20°C	0.0	U				1986DHb	(28268)1240
							K(ZnA+HL)=0.60			
							K(ZnA+L)=1.30			

In D2O. A = tren

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U	M	K1=6.00		1982KJa	(28269)1241
							K(Zn2(CdTA)+2L)=13.31			

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	vlt	NaClO4	30°C	1.5M	C	M	K1=12.70	B2=14.00	1980GCb	(28270)1242
							B(Zn(en)L)=15.48			

Method: polarography.

****

C3H10N2 L CAS 109-81-9 (1308)
N-Methyl-1,2-diaminoethane; CH3.NH.CH2.CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	1.00M	C	H	K1=5.66	B2=10.18	1982ABc	(28353)1243

By calorimetry: DH1=-12.1 kJ mol-1, DS1=67.7; DH(B2)=-27.4, DS(B2)=102.9

Zn++ gl oth/un 10°C ->0 U T H K1=5.47 B2=9.96 1959MBa (28354)1244
DH(K1)=-21 kJ mol-1, DS=4 J K-1 mol-1; DH(K2)=-14, DS=4. 20 C: K1=5.39,
K2=4.36; 30 C: K1=5.29, K2=4.23; 40 C: K1=5.08, K2=4.26

****

C3H10N2O L CAS 616-29-5 (1910)
1,3-Diaminopropane-2-ol; H2N.CH2.CH(OH).CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	30°C	1.0M	U		K1=4.60	B2=9.02	1955GFa	(28380)1245

****

C3H11NO6P2 H4L (6772)
(Dimethylamino)-N-methylenediphosphonic acid; (CH3)2N.CH(PO3H2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	M		K1=9.27	1978GMf	(28407)1246
							K(Zn+HL)=7.19		

****

C3H11NO6P2 H4L (6735)
N-Methylimino-N,N-bis(methylenephosphonic acid); CH3.N(CH2PO3H2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C		K1=9.68	1999MKa	(28431)1247
							B(ZnHL)=15.47		
							B(ZnH2L)=19.58		
							B(ZnH-1L)=-0.25		
							B(ZnH-2L)=-11.95		
*K(ZnL)=-9.93; K(ZnOH+L)=9.14; K(ZnOH+ZnL=Zn(OH)L+Zn)=-0.54									
Zn++	gl	KNO3	25°C	0.10M	C		K1=10.44	1993SKc	(28432)1248
							K(ZnL+H)=5.83		
Zn++	gl	NaClO4	25°C	0.10M	U		K1=8.90	B2=14.62	1988LDa	(28433)1249
							B(ZnHL)=15.46		
							B(ZnH2L2)=31.44		

****

C3H11NO7P2 H4L CAS 40291-99-9 (1346)
1-Hydroxy-3-aminopropyl-1,1-diphosphonic acid; (H2O3P)2C(OH).CH2.CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	37°C	0.15M	C		K1=14.55	1999ZJa	(28455)1250
							K(ZnL+H)=6.33		
							K(ZnHL+Zn)=4.86		
							K(ZnL+3H)=14.80		

****

C3H11N3 L CAS 21292-99-6 (2975)
Propane-1,2,3-triamine; H2N.CH2.CH(NH2).CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=6.50 B2=11.42 B(ZnHL)=13.75 B(ZnH-1L)=-2.89 B(ZnH-2L)=-12.80 B(ZnHL2)=19.08 B(ZnH-1L2)=0.81.	1998ZMa (28479)	1251
Zn++	gl	NaCl	25°C	0.15M	C	H	K1=6.66 B2=11.55 B(ZnHL)=13.97 B(ZnHL2)=19.49 By calorimetry: DH(K1)=-22 kJ mol-1, DS=53 J K-1 mol-1; DH(K2)=-26, DS=6; DH(Zn+HL)=-20, DS=-16; DH(ZnL+HL)=-21, DS=-9; DH(ZnHL+L)=-23, DS=30	1997CSa (28480)	1252
Zn++	gl	KCl	20°C	0.10M	U		K1=6.75 K(Zn+HL)=4.25	1950PSa (28481)	1253

****

C3H12NO9P3 H6L NTPA CAS 6419-19-8 (2920)
Nitrilotris(methylenephosphonic acid); N(CH2PO3H2)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=16.3 K(ZnL+H)=6.1 K(ZnH2L+H)=4.0 K(ZnHL+H)=4.89 K(ZnH3L+H)=2.5	1997DBb (28527)	1254
Zn++	cal	KNO3	25°C	1.00M	U	TIH	DH(K1)=-11.4 kJ mol-1; DS=240 J K-1 mol-1. DH(Zn+HL)=42.9, DS=295	1990VOa (28528)	1255
Zn++	gl	KNO3	25°C	0.10M	C		K1=14.6 K(ZnL+H)=6.34 K(ZnHL+H)=5.12 K(ZnH2L+H)=3.9	1989SAa (28529)	1256
Zn++	gl	KNO3	25°C	0.10M	U		K1=14.75 K(Zn+HL)=8.98 K(Zn+H2L)=6.84 K(Zn+H3L)=4.92	1988VSa (28530)	1257
Zn++	gl	alc/w	25°C	10%	U		K1=14.71 K(ZnL+H)=6.24 K(ZnHL+H)=5.19 K(ZnH2L+H)=4.10 In 10% ethanol/H2O; I=0.1 M NaClO4.	1987SHa (28531)	1258

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------------------------------------------------------------------------------
Zn++       gl  KCl    25°C  0.1M M        K1=16.37       1975MNa (28532)1259
                                          K(Zn+HL)=10.43
                                          K(Zn+H2L)=8.18
                                          K(Zn+H3L)=6.35
                                          K(Zn+H4L)=3.46
******************************************************************************
C3H12O10P4            H6L                        (7924)
Tris(dihydroxy-phosphonylmethyl)phosphineoxide;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  R4N.X  20°C 0.10M C        K1=9.4         1977ANb (28608)1260
                                          K(Zn+H2L)=4.41
                                          K(ZnHL+H)=5.14
                                          K(ZnL+H)=7.91
******************************************************************************
C4H3N2O2Br            H2L    5-Bromouracil    CAS 51-20-7  (8651)
5-Bromo-2,4-dihydroxypyrimidine;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C    M                  2000SSd (28680)1261
                                          K(Zn+HL)=6.78
                                          K(Zn+L+2OH)=18.96
                                          K(ZnLOH+OH)=3.93
Also data for ternary complexes.
******************************************************************************
C4H3N2O2F              HL    5-Fluorouracil   CAS 51-21-8  (4277)
5-Fluoro-2,4(1H,3H)-pyrimidinedione;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M U    M   K1=6.10        1996SGa (28689)1262
                                          K(ZnA+L)=7.02
A is adenine.
******************************************************************************
C4H3N2O2I             H2L    5-Iodouracil     CAS 696-07-1  (8652)
5-Iodo-2,4-dihydroxypyrimidine;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C    M                  2000SSd (28698)1263
                                          K(Zn+HL)=5.86
                                          K(Zn+L+2OH)=18.24
                                          K(ZnLOH+OH)=3.74
Also data for ternary complexes.
******************************************************************************
C4H3N3O3S             H3L    Thiovioluric     CAS 23036-77-3  (2000)
2-Thio-4,5,6(H)-pyrimidinetetrone 5-oxime
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-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  50%  U        K1=3.21        1973CSb (28715)1264
Medium: 50% dioxan, 0.1 M NaClO4
*******************************************************************************
C4H4N2                  L    Pyridazine       CAS 289-80-5  (1484)
1,2-Diazine, Pyridazine; cyclo(-N:N.CH:CH.CH:CH-)
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=0.18   B2=0.93   1988KLa (28767)1265
*******************************************************************************
C4H4N2                  L    Pyrazine         CAS 290-37-9  (620)
1,4-Diazine, Pyrazine;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       sp  non-aq   ?  100%  U    M                  1990AHb (28785)1266
                                        K(ZnA+L)=2.26
Medium: CH2Cl2. A=biphenyl capped mesoporphyrin.   Data for other porphyrin
Zn complexes
*******************************************************************************
C4H4N2O2               HL    Uracil           CAS 66-22-8  (412)
2,4-Dihydroxypyrimidone, 2,4-Pyrimidinedione;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.10M C                       2001BBb (28842)1267
                                        K(ZnA+L)=3.45
                                        K(ZnAL+OH)=4.36
                                        K(Zn2A+L)=5.0
                                        K(Zn2AL+L)=4.7
Medium: 0.10 M NMe4NO3. K(Zn2AL2+2OH)=7.9.
A is 1,4,7,16,19,22-hexaza-10,13,25,28-tetraoxacyclotriacontane.
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  37°C 0.10M U    M   K1=3.78        1994MGd (28843)1268
                                        B(ZnAL)=5.03
HA is 6-aminopenicillanic acid.
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  37°C 0.15M U        K1=2.39        1990CIa (28844)1269
                                        B(ZnH-1L)=-4.89
-------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M U    M   K1=4.98        1989SRc (28845)1270
                                        K(Zn(thiamine)+L)=4.35
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U T H    K1=5.13        1983KSa (28846)1271
-------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M U        K1=4.98   B2=9.45   1981TSa (28847)1272
-------------------------------------------------------------------------------
```

Zn++ gl KNO3 45°C 0.10M U K1=3.5 1974KKa (28848)1273
****
C4H4N2O2 H2L CAS 123-33-1 (8346)
3,6-Dihydroxypyridazine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ vlt mixed 25°C 30% C T H K1=8.48 1992SBb (28874)1274
Method: polarography. Medium: 30% DMSO/H2O, 0.10 M LiClO4.
Data for 15 and 35 C. DH(K1)=-54.5 kJ mol-1, DS(K1)=-30 J K-1 mol-1.
****
C4H4N2O2S H2L Thiobarbituric CAS 504-17-6 (4279)
4,6-Dihydroxy-2-mercaptopyrimidine, 2-thiobarbituric acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 31°C 0.10M U T H K1=6.74 B2=11.88 1984SJa (28881)1275
Also data for 18 and 42 C. DH(K1)=-84.3 kJ mol-1, DS(K1)=-149 J K-1 mol-1
DH(K2)=-51.5, DS(K2)=-71.4.
****
C4H4N2S HL CAS 1450-85-7 (1521)
2-Mercapto-1,3-diazine, 2-Mercaptopyrimidine; C4H3N2.SH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 35°C 0.10M C K1=3.52 1996RRa (28929)1276

Zn++ gl KNO3 45°C 0.10M C K1=3.92 1986KZa (28930)1277
****
C4H4N6 L 8-Azaadenine CAS 1123-54-2 (1884)
8-Aza-6-aminopurine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 45°C 0.10M U K1=4.1 1973TKa (28948)1278
****
C4H4N6O L 8-Azaguanine CAS 134-58-7 (114)
2-Amino-6-hydroxy-8-azapurine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 25°C 50% U M K1=7.68 1978MCb (28960)1279
K(Zn(bpy)+L)=7.35
K(Zn(phen)+L)=7.36
K(Zn(NTA)+L)=4.03
****
C4H4O4 H2L Maleic acid CAS 110-16-7 (111)
cis-Butenedioic acid; HOOC.CH:CH.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

```
--------------------------------------------------------------------------------
Zn++       gl  NaCl   37°C 0.15M C    M   K1=2.19   B2=4.67   1988BCc (29027)1280
                                          B(ZnH2L2)=15.72
                                          B(ZnHL2)=10.52
                                          B(ZnH-1L)=-5.54
Ternary complex with enalapril. Other models contain B(ZnH-1L2)=-3.22 in
place of B(ZnH-1L)
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M C    M   K1=2.044  B2= 3.95  1987BVa (29028)1281
                                          B3=5.309
                                          B(ZnHL2)=9.988
                                          B(ZnH2L2)=15.236
                                          B(ZnH-1L)=-5.172
B(Zn(histamine)L)=7.245, B(ZnH(histamine)L)=13.637,
B(Zn(histamine)2L)=11.924.
--------------------------------------------------------------------------------
Zn++       vlt NaClO4 25°C 2.00M U         K1=1.70   B2=2.20   1977GSa (29029)1282
                                          B3=3.35
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.10M U         K1=2.0          1960YYa (29030)1283
********************************************************************************
C4H4O5                H2L    Oxobutanedioic   CAS 328-42-7  (1733)
2-Oxosuccinic acid, Oxalacetic acid; HOOC.CH2.CO.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.50M U TI      K1=2.00         1990MOf (29249)1284
At 0.1 M, K1=2.39; at 0.2 M, K1=2.23. At 30 C and 0.5 M, K1=1.97.
--------------------------------------------------------------------------------
Zn++       kin oth/un 25°C 0.27M U         K1=9.0          1987TLa (29250)1285
Result given for enol form.  For ligand hydrate, K1=9.3
--------------------------------------------------------------------------------
Zn++       kin KCl    25°C 0.50M U  I      K1=1.99         1982BLb (29251)1286
                                          K(2Zn+L=Zn2H-1L+H)=-2.70
                                          K(ZnL(keto)=ZnL(enol))=0.70
Also in 50% dioxan/H2O
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U         K1=2.412        1976RLa (29252)1287
                                          B(Zn2H-1L)=-1.134
--------------------------------------------------------------------------------
Zn++       kin KCl    25°C 0.10M U         K1=2.411        1974CLa (29253)1288
                                          B(ZnH-1L)=-1.135
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.10M U         K1=3.2          1958GHc (29254)1289
                                          K(ZnL+Zn)=2.3
********************************************************************************
C4H5NO                   L    Methylisoxazole  CAS 5765-44-6  (2045)
5-Methylisoxazole; C3H2NO.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
```

Zn++ EMF KNO3 25°C 0.50M U K1=-0.17 B2=-0.96 1977LKa (29288)1290
****
C4H5NO2 HL Succinimide CAS 123-56-8 (390)
Succinic acid imide; (CH2.CO)2NH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M M M 1994KTa (29305)1291
K(ZnA+L)=5.60
A:1,4,7,10-Tetraazacyclododecane. By kinetic methods, K=5.2
****
C4H5NS L 4-Methiazole CAS 693-95-5 (820)
4-Methylthiazole; C3H2NS.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.50M U K1=0.55 B2=0.76 1976LKb (29323)1292
****
C4H5N2Cl L CAS 872-49-1 (7589)
5-Chloro-1-methylimidazole;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaNO3 25°C 0.50M M K1=1.97 1998KSa (29330)1293
****
C4H5N3 L CAS 109-12-6 (1480)
2-Amino-1,3-diazine; C4H3N2.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.50M U K1=0.29 B2=0.88 1988KLa (29341)1294
****
C4H5N3O HL Cytosine CAS 71-30-7 (1096)
2-Oxy-6-aminopyrimidine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl R4N.X 25°C 0.10M C 2001BBb (29386)1295
K(Zn2A+L)=6.74
K(Zn2AL+OH)=5.85
Medium: 0.10 M NMe4NO3.
A is 1,4,7,16,19,22-hexaza-10,13,25,28-tetraoxacyclotriacontane.

Zn++ gl NaClO4 25°C 0.10M M 1995LWa (29387)1296
K(Zn+HL)=1.13
K(Zn(atp)+HL)=1.67

Zn++ gl NaNO3 37°C 0.10M U M K1=1.55 1994MGd (29388)1297
B(ZnAL)=2.83

HA is 6-aminopenicillanic acid.

Zn++	gl	KNO3	35°C	0.10M	U	M	K1=2.23 B(ZnHLAsp)=8.16 B(ZnLAsp)=6.37 K(ZnL+Gly)=5.08	1989SRe (29389)1298

Zn++	gl	KNO3	35°C	0.10M	U	M	K(Zn+HL+HA)=8.61 K(Zn(HL)A+H)=5.70 K(Zn+HL+D)=9.21 K(Zn+HL+C)=11.05	1986RRe (29390)1299

HA is glycine; H2D is oxalic acid; C is histamine.

Zn++	gl	KNO3	35°C	0.10M	U T	H	K(Zn+HL)=2.23 K(Zn+2HL)=3.38	1983KSa (29391)1300

Zn++	gl	KNO3	45°C	0.10M	U		K(Zn+HL)=2.46 K(ZnHL+HL)=3.14	1978KJa (29392)1301

Zn++	gl	KNO3	45°C	0.10M	U		K(Zn+HL)=2.8	1974KKa (29393)1302

Zn++	nmr	non-aq	36°C	100%	U	M	K(Zn+HL)=1.39	1966WLa (29394)1303

Medium: DMSO. Ternary complexes with imidazole

****

C4H5N3O2 HL (1327)

4-Oximino-3-methyl-2-pyrazolin-5-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	alc/w	20°C	50%	U	T	K1=2.91	B2=5.68	1981SSc (29427)	1304

At 30 C: K1=2.76, B2=5.58

****

C4H6N2 L 2-Me-Imidazole CAS 693-98-1 (122)

2-Methyl-1,3-diazole; C3H3N2.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	30°C	0.20M	U		K1=2.82	1999PGa (29464)	1305

Zn++	gl	NaNO3	30°C	0.20M	U		K1=2.83	1999PPa (29465)1306

Zn++	sp	non-aq	25°C	100%	C	H	K(ZnP+L)=4.75	1998RZa (29466)1307

Medium: CH2Cl2. Data for 20-35 C. P is meso-tetra(3-methylphenyl)porphyrin

DH=-33.8 kJ mol-1, DS=-22.6 J K-1 mol-1. Data for 3-NO2-, 3-Cl-, 3-OCH3-

```
--------------------------------------------------------------------------------
Zn++       dis oth/un 25°C 0.00  U        K1=8.54        1987WCa (29467)1308
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=1.88   B2=3.99   1974LKa (29468)1309
                                          B3=7.49
                                          B4=9.32
********************************************************************************
C4H6N2                  L    Methylpyrazole   CAS 453-58-3  (368)
3-Methyl-1,2-diazole; C3H3N2.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=1.23   B2=2.15   1975LWc (29499)1310
                                          B3=2.85
********************************************************************************
C4H6N2                  L                     CAS 7554-65-6  (2052)
4-Methyl-1,2-diazole; C3H3N2.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=1.30   B2=2.27   1978LKc (29510)1311
                                          B3=2.90
                                          B4=3.21
********************************************************************************
C4H6N2                  L    4-Me-Imidazole   CAS 822-36-6  (353)
4-Methyl-1,3-diazole; C3H3N2.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=2.48   B2=5.06   1977LOa (29522)1312
                                          B3=7.74
                                          B4=10.52
                                          B5=12.62
                                          B6=13.66
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.15M U        K1=2.44   B2=4.97   1957NGa (29523)1313
                                          K3=2.64
                                          K4=2.38
********************************************************************************
C4H6N2                  L    N-Me-Imidazole   CAS 616-47-7  (354)
N-Methyl-1,3-diazole; C3H3N2.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.50M M        K1=2.54        1998KSa (29551)1314
--------------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U   H                   1991MBc (29552)1315
                                          K(ZnP+L)=4.71
In toluene. P=tetraphenylporphyrin.  DH(K1)=-42.9 kJ mol-1; DS(K1)=-53.1.
Also data for (X-phenyl)porphyrinato complexes: X=CF3, Cl, CH3, OCH3, NH2
```

```
--------------------------------------------------------------------------------
Zn++       cal NaNO3  25°C  1.0M C                        1983ARa (29553)1316
DH(K1)=-20.71 kJ mol-1, DS(K1)=-17.8 J K-1 mol-1.
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M M        K1=2.70   B2= 4.80  1977LBb (29554)1317
                                         B3=7.41
                                         B4=9.32
                                         B5=10.23
********************************************************************************
C4H6N2O                 L                      CAS 13148-65-7  (2050)
2,5-Dimethyl-1,3,4-oxadiazole; C2N2O(CH3)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       ISE KNO3   25°C 0.50M U        K1=0.23        1977LGa (29612)1318
Competition with Ag
********************************************************************************
C4H6N2O5              H2L                      CAS 25081-31-6  (3003)
N-Nitrosoiminodiethanoic acid; O:N.N(CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    30°C 0.10M U        K1=1.4         1957TBb (29628)1319
********************************************************************************
C4H6N2O6              H2L                      CAS 25081-33-8  (3004)
N-Nitroiminodiethanoic acid; O2N.N(CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    30°C 0.10M U        K1=1.6         1957TBb (29634)1320
********************************************************************************
C4H6N2S                 L                      CAS 27464-82-0  (1457)
2,5-Dimethyl-1,3,4-thiadiazole; C2N2S(CH3)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=-0.09       1985GLa (29640)1321
********************************************************************************
C4H6N2S                 L                      CAS 7063-91-4  (1422)
2-Amino-4-methylthiazole; C3HNS(CH3).NH2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=0.72        1982GKa (29647)1322
********************************************************************************
C4H6N2S                HL    Methimazole      CAS 60-56-0  (1824)
N-Methyl-2-mercaptoimidazole; C3H2N2(CH3).SH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
```

```
Zn++       EMF KNO3   25°C 0.50M C                        1977LWa (29656)1323
                                          B4=2.24
Method: Ag electrode; competitive complexation with Ag(I).
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=7.31   B2=13.81  1977STc (29657)1324
********************************************************************************
C4H6N4O                 L                      CAS 1672-50-0  (5993)
4,5-Diamino-6-hydroxypyrimidine;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   45°C 0.10M C                        1986KZa (29679)1325
                                          K(Zn+HL)=2.75
                                          K(ZnHL+HL)=3.7
********************************************************************************
C4H6N4O3S2              L                        (6481)
2-Acetylamino-1,3,4-thiadiazole-5-sulphonamide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       kin NaClO4 25°C 0.10M M    M                   1992KKb (29688)1326
                                          K(ZnA+L)=4.9
A:1,5,9-triazacyclododecane
--------------------------------------------------------------------------------
Zn++       gl  alc/w  25°C  50%  U        K1=3.99   B2=8.159  1990FBb (29689)1327
********************************************************************************
C4H6O2S2                HL                     CAS 2224-02-4  (1225)
1,2-Dithiolane-3-carboxylic acid, Tetranorlipoic acid; C3H5S2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M C        K1=2.14           1978SPd (29739)1328
********************************************************************************
C4H6O3                  HL                     CAS 600-18-0  (5474)
2-Ketobutanoic acid; CH3.CH2.CO.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C        K1=1.69           1982KMc (29745)1329
********************************************************************************
C4H6O3                  HL    Acetoacetic aci  CAS 541-50-4  (5475)
3-Ketobutanoic acid; CH3.CO.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C        K1=0.83           1982KMc (29749)1330
********************************************************************************
C4H6O4                 H2L    Succinic acid    CAS 110-15-6  (112)
1,4-Butanedioic acid; HOOC.CH2.CH2.COOH
--------------------------------------------------------------------------------
```

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.1M	C		K1=2.0 K(Zn+HL)=1.29		1999VZa (29872)	1331
Zn++	vlt	oth/un	25°C	0.1M	U		K1=2.3		1995FFa (29873)	1332
Zn++	gl	NaCl	25°C	0.50M	C		K1=0.85		1989FRa (29874)	1333
Zn++	gl	NaClO4	37°C	0.15M	C		K1=2.96 B(ZnHL)=7.46	B2=5.09	1977RWc (29875)	1334
Zn++	dis	NaClO4	25°C	1.00M	U		K1=1.48	B2=2.00	1974MSc (29876)	1335
Zn++	nmr	oth/un	3°C	0.50M	U		K1=2.33 K(Zn+HL)=2.14		1973HAb (29877)	1336
35Cl probe										
Zn++	ISE	oth/un	25°C	0.0	U		K1=2.47 K(Zn+HL)=1.51		1967MNc (29878)	1337
Zn++	cal	KCl	25°C	0.10M	U	H			1967MNc (29879)	1338
DH(K1)=18.4 kJ mol-1, DS=109 J K-1 mol-1										
Zn++	dis	oth/un	25°C	0.0	U		K1=3.22		1966RMb (29880)	1339
Zn++	gl	NaClO4	20°C	0.10M	U		K1=1.76 K(Zn+HL)=0.96		1963CAa (29881)	1340
Zn++	gl	oth/un	25°C	0.10M	U		K1=1.6		1960YYa (29882)	1341
Zn++	gl	oth/un	25°C	?	U		K1=2.5		1958GHc (29883)	1342
Zn++	EMF	KCl	25°C	0.20M	U		K1=1.78 K(Zn+HL)=0.90		1938CKa (29884)	1343

****

C4H6O4 HL Acetoxyacetic a CAS 13831-30-6 (4249)
Acetoxyethanoic acid; CH3.CO2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaNO3	30°C	0.40M	U		K1=0.67		1970BTa (30082)	1344

****

C4H6O4 H2L Me-Malonic Acid CAS 516-15-2 (816)
Methylpropanedioic acid; HOOC.CH(CH3).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C	H	K1=2.64 K(Zn+HL)=1.05	B2=4.04	1989ABa (30107)	1345

B(ZnL(bpy))=7.64
DH(K1)=12.8 kJ mol-1, DS(K1)=93.3 J K-1 mol-1

Zn++ gl NaClO4 25°C 0.10M U K1=2.55 1968OVa (30108)1346

Zn++ con oth/un 25°C .001M U K1=3.10 1931IRb (30109)1347
****
C4H6O4S H2L Thiodiacetic CAS 123-93-3 (140)
2,2'-Thiodiglycolic acid, Thiodiethanoic acid; HOOC.CH2.S.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 35°C 0.10M C M K1=3.70 1999DSb (30195)1348
B(ZnAL)=6.48
A is thiamine hydrochloride.

Zn++ gl KNO3 35°C 0.10M U M 1990RSd (30196)1349
B(Zn(asp)L)=5.61
K(ZnL+en)=5.49
K(ZnL+his)=6.62
K(ZnL+A)=2.30
K(ZnL+met)=4.58, K(ZnL+B)=4.52, K(ZnL+trp)=4.38,
K(ZnL+HC)=4.34. A is imidazole, HB is phenylalanine, H2C is tyrosine.

Zn++ gl NaClO4 25°C 0.10M U TIH K1=3.20 B2= 5.87 1982DBb (30197)1350
Data for 0.2, 0.3 M. At I=0, K1=3.14, K2=2.62. Data for 35 and 45 C.
DH(K1)=-11.6 kJ mol-1, DS(K1)=21.6 J K-1 mol-1; DH(K2)=-3.5, DS(K2)=38.6.

Zn++ gl oth/un 25°C 0.10M U K1=2.9 1960YYa (30198)1351

Zn++ gl KCl 30°C 0.10M U K1=3.0 1957TBb (30199)1352
****
C4H6O4S H3L Thiomalic acid CAS 70-49-5 (109)
2-Mercaptosuccinic acid, 2-Sulfanyl-1,4-butanedioic acid; HOOC.CH(SH).CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.10M C B2=14.16 2002CDc (30295)1353
B(Zn2L2)=18.74
B(Zn2H-1L2)=10.26
B(Zn2H-2L2)=0.82
B(ZnHL2)=20.3

Zn++ gl NaClO4 30°C 0.10M U K1=7.04 B2=13.43 1988NDa (30296)1354

Zn++ gl NaCl 37°C 0.15M C B2=14.586 1986FIa (30297)1355
B(ZnHL)=12.569
B(Zn2HL2)=23.360
B(Zn2L2)=19.365

```
Zn++       gl  KNO3   20°C 0.10M U        K1=8.09        1977CAd (30298)1356
                                         K(Zn+HL)=2.12
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 20°C 0.10M U        K1=8.36   B2=14.88  1970AMa (30299)1357
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=8.82   B2=14.71  1969PPa (30300)1358
                                         K(Zn+HL)=2.53
-------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M U T H    K1=8.86   B2=15.79  1968SGg (30301)1359
K1=8.75(25 C),8.85(30 C); K2=6.82(25 C),6.75(30 C)
DH(B2)=-22.1 kJ mol-1, DS=226(?) J K-1 mol-1
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U  I     K1=8.24   B2=14.56  1965LMa (30302)1360
                                         K(ZnLOH+H)=8.36
At I=1.0 M: K1=7.52, K(ZnLOH+H)=8.01
-------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C    ?  U        K1=8.47   B2=13.75  1959CFa (30303)1361
*******************************************************************************
C4H6O4S2              H4L                    CAS 2418-14-6  (4264)
2,3-Dimercaptobutanedioic acid; HOOC.CH(SH).CH(SH).COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C                         2002CDc (30389)1362
                                         B(Zn2L2)=33.29
                                         B(Zn2HL2)=39.73
                                         B(Zn2H2L2)=44.10
-------------------------------------------------------------------------------
Zn++       gl  NaCl   37°C 0.15M U        B2=19.46        1984JSb (30390)1363
                                         B(Zn2L2)=34.08
                                         B(Zn2HL2)=40.07
                                         B(Zn2H2L2)=44.57
                                         B(ZnHL3)=34.35
*******************************************************************************
C4H6O4S2              H2L                    CAS 505-73-7  (3585)
Dithiodiethanoic acid; HOOC.CH2.S.S.CH2.COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U TIH    K1=2.73         1982DBb (30408)1364
Data for 0.2, 0.3 M. At I=0, K1=2.52. Data for 35 and 45 C.
DH(K1)=-3.6 kJ mol-1, DS(K1)=38.8 J K-1 mol-1.
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=1.6          1968SKd (30409)1365
*******************************************************************************
C4H6O4S2              H4L                    CAS 304-55-2  (3002)
meso-2,3-Dimercaptobutanedioic acid (meso-dithiotartaric acid)
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
```

```
Zn++       gl  KNO3   25°C 0.10M C                      1991HCa (30424)1366
                                    B(ZnHL)=20.08
                                    B(Zn2H-1L2)=23.6
                                    B(Zn2L2)=33.6
                                    B(Zn2HL2)=39.6
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 20°C 0.10M U       K1=15.82       1970AMa (30425)1367
                                    K(Zn+ZnL)=3.85
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U                      1965LMa (30426)1368
                                    K(ZnL+Zn)=4.07
                                    K(ZnL+H)=5.7
                                    K(ZnHL+H)=3.4
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U       K1=14.42  B2=17.74  1965LMa (30427)1369
                                    K(Zn+H2L)=3.8
                                    K(Zn+HL)=9.3
                                    K(ZnLOH+H)=10.11
                                    K(ZnL2OH+H)=9.4
-------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U       K1=15.82  B2=19.39  1955ASa (30428)1370
                                    K(ZnL+Zn)=3.85
                                    K(Zn+HL)=9.6
                                    K(Zn+H2L)=2.8
                                    K(Zn+ZnL)=3.57
K(ZnLOH+H)=12.28, K(ZnL2OH+H)=9.7
*******************************************************************************
C4H6O4Se              H2L                     CAS 6228-62-2  (984)
Selenodiethanoic acid; HOOC.CH2.Se.CH2.COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C       K1=2.18        1975LPa (30443)1371
                                    K(Zn+HL)=1.05
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U       K1=2.1         1966SYa (30444)1372
*******************************************************************************
C4H6O5                H2L    Malic acid       CAS 617-48-1  (393)
2-Hydroxybutane-1,4-dioic acid, Hydroxy-succinic acid; HOOC.CH2.CH(OH).COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M C    M   K1=3.007  B2= 5.32  1987BVa (30548)1373
                                    B(ZnH2L)=9.834
                                    B(ZnHL)=6.815
                                    B(ZnHL2)=9.686
                                    B(ZnH2L2)=13.389
B(ZnH-1L)=-1.655, B(Zn(histamine)L)=7.739, B(ZnH(histamine)L)=13.970.
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M C       K1=2.90        1976MTa (30549)1374
```

```
                                        B(ZnHL)=6.24
                                        B(ZnH-1L)=-3.64
                                        B(ZnH2L)=8.87
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 20°C 0.10M U                      1963CAa (30550)1375
                                        K(Zn+H2L)=1.66
                                        K(Zn+HL)=2.93
--------------------------------------------------------------------------------
Zn++       kin oth/un 25°C  ->0  U       K1=3.32        1951BWa (30551)1376
                                        K(Zn+HL)=2.00
--------------------------------------------------------------------------------
Zn++       EMF KCl    25°C 0.20M U       K1=2.80        1938CKa (30552)1377
                                        K(Zn+HL)=1.57
********************************************************************************
C4H6O5               H2L    Diglycolic acid  CAS 110-99-6  (243)
Di(carboxy)methyl ether, 2,2'-Oxydiethanoic acid; HOOC.CH2.O.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U    M   K1=3.52        1989NDb (30824)1378
                                        B(ZnAL)=7.56
                                        B(ZnBL)=6.76
H2A is maleic acid; H2B is malonic acid.
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C       K1=3.65        1984MMg (30825)1379
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U TI M   K1=3.79        1982DBb (30826)1380
Data for 0.2, 0.3 M. At I=0, K1=3.71. Data for 35 and 45 C.
DH(K1)=-6.95 kJ mol-1, DS(K1)=47.7 J K-1 mol-1.
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C       K1=3.59        1975FCc (30827)1381
                                        B(ZnHL)=6.03
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U       K1=3.58        1975MTc (30828)1382
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.10M U       K1=3.6         1960YYa (30829)1383
--------------------------------------------------------------------------------
Zn++       gl  KCl    30°C 0.10M U       K1=3.6         1957TBb (30830)1384
********************************************************************************
C4H6O6               H2L    DL-Tartaric acd  CAS 133-37-9  (94)
DL-Tartaric acid,DL-2,3-Dihydroxybutanedioic acid; HOOC.CH(OH).CH(OH).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 20°C 1.00M M    M                   1985MOa (30999)1385
                                        B(ZnHLAscorbate)=7.19
********************************************************************************
C4H6O6               H2L    L-Tartaric acid  CAS 87-69-4  (92)
L-Tartaric acid, L-2,3-Dihydroxybutanedioic acid; HOOC.CH(OH).CH(OH).COOH
--------------------------------------------------------------------------------
```

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       ix  oth/un 30°C  dil  C T      K1=2.75        1992LHb (31136)1386
Medium: 0.2-5.0 mM tartaric acid eluent. At 40 C, K1=2.76
-------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M C    M   K1=2.245       1987BVa (31137)1387
                                         B3=6.447
                                         B(ZnHL)=5.479
                                         B(Zn2L2)=7.659
                                         B(ZnH-1L2)=-2.222
B(Zn(histamine)L)=7.536, B(ZnH-1(histamine)L)=0.219.
-------------------------------------------------------------------------
Zn++       vlt oth/un 25°C  2.0M U    M   K1=2.0    B2=3.0    1983KJa (31138)1388
                                         B3=4.3
-------------------------------------------------------------------------
Zn++       dis NaClO4 23°C 1.00M U        K1=3.22        1978PSb (31139)1389
-------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M C        K1=2.58   B2=4.50   1976MTa (31140)1390
                                         B(ZnHL)=5.59
                                         B(ZnHL2)=8.22
-------------------------------------------------------------------------
Zn++       dis oth/un 25°C  0.0  U        K1=3.31   B2=5.16   1966RMb (31141)1391
-------------------------------------------------------------------------
Zn++       ISE oth/un 20°C  var  U        K1=3.09   B2=4.98   1963FLb (31142)1392
                                         K(Zn+H-1L)=6.33
                                         K(Zn+HL)=1.22
                                         Kso=-6.54
-------------------------------------------------------------------------
Zn++       dis NaClO4 20°C 0.10M U        K1=2.69        1963STc (31143)1393
-------------------------------------------------------------------------
Zn++       ix  oth/un   ?     ?  U        K2=5.62        1957KPb (31144)1394
-------------------------------------------------------------------------
Zn++       EMF KCl    25°C 0.20M U        K1=2.68        1938CKa (31145)1395
                                         K(Zn+HL)=1.44
*************************************************************************
C4H7NO2                HL                       (8137)
(S)-Azetidine-2-carboxylic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=5.5    B2=10.60  1989ARa (31438)1396
*************************************************************************
C4H7NO2S               HL    Thioproline      CAS 444-27-9  (1183)
Thiazolidine-4-carboxylic acid; C3H6NS.COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  NaCl   37°C 0.15M C    M   K1=3.190  B2=5.753  1981HMa (31468)1397
                                         B3=7.883
                                         B(ZnL(His))=8.87
```

```
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.15M U        K1=3.103  B2=5.629  1976FJa (31469)1398
********************************************************************************
C4H7NO2S2             H2L                      CAS 2030-77-5  (4281)
2-Dithiocarbaminopropanoic acid; CH3.CH(NH.CSSH).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       EMF NaClO4 25°C 1.00M U        K1=3.55   B2=6.47   1972RBb (31475)1399
********************************************************************************
C4H7NO2S2             H2L                      CAS 40520-03-4  (4280)
N-(Dithiocarboxy)aminopropanoic acid; HSSC.NH.CH2.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       oth oth/un   ?     ?  U        K1=3.55   B2=6.47   1973RBc (31479)1400
********************************************************************************
C4H7NO3                HL                       CAS 543-24-8  (3586)
N-Acetylglycine; CH3.CO.NH.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  30°C 0.40M U        K1=0.71        1970BTa (31494)1401
********************************************************************************
C4H7NO4               H2L    Aspartic acid    CAS 56-84-8  (21)
Aminobutanedioic acid; H2N.CH(CH2.COOH).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M   K1=8.01        2003AHa (31718)1402
                                          K(ZnL+A)=3.90
HA is 3-amino-5-mercapto-1,2,4-triazole.
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C    M   K1=6.82   B2=11.64  2000KAb (31719)1403
                                          K(ZnA+L)=7.08
H2A=Dipicolinic acid.
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C        K1=5.69   B2= 9.77  2000MSa (31720)1404
                                          B(ZnH-1L)=-3.20
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M   K1=7.05        1999AAa (31721)1405
                                          K(ZnL+A)=3.52
                                          B(ZnLA)=10.57
                                          K(ZnL+B)=3.70
                                          B(ZnLB)=10.75
K(ZnHL+C)=1.61.  HA=MOPSO, HB=MOPS, HC=TAPSO.
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  30°C 0.20M U    M   K1=5.78        1999PPa (31722)1406
                                          B(ZnAL)=8.86
                                          B(ZnCL)=8.71
```

```
                                        B(ZnDL)=8.68
A is imidazole, C is 2-Me-imidazole, D is 2-Et-imidazole.
-------------------------------------------------------------------------------
Zn++       vlt NaClO4 25°C  1.0M C    M                  1999VKc (31723)1407
                                        B(ZnLA)=6.48
                                        B(ZnLA2)=9.91
                                        B(ZnL2A)=11.04
Method: polarography. Medium pH: 8.5. A is 4-picoline.
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M U    M   K1=5.69   B2= 9.77  1998MSe (31724)1408
                                        B(ZnH-1L)=-3.20
                                        B(ZnAL)=9.88
                                        B(ZnH-1AL)=-2.90
                                        B(Zn2AL2)=18.73
B(Zn2(H-1A)L2)=12.18. A is imidazole.
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.20M U    M   K1=5.74   B2= 9.83  1997PJa (31725)1409
                                        K(Zn(bpy)+L)=4.89
                                        K(Zn(phen)+L)=5.68
                                        K(ZnA+L)=5.24
                                        K(Zn(his)+L)=4.69
A is 2,2'-bipyridylamine. K(Zn(ida)+L)=4.97.
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M M    M   K1=8.01        1996AEa (31726)1410
Data for ternary complexes with dipicolinic acid.
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C  1.0M U    M   K1=5.67   B2= 9.03  1995KDa (31727)1411
                                        K3=1.26
                                        B(ZnLA)=6.83
                                        B(ZnLA2)=9.81
                                        B(ZnL2A)=11.05
Medium pH 8.50. HA is propanoic acid.
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.20M U T  M   K1=5.74   B2= 9.83  1993PPa (31728)1412
                                        K(ZnA+L)=5.52
A is 2,2'-bipyridylamine. Also data for 35 and 45 C.
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M U    M   K1=5.71   B2=9.65   1992NAa (31729)1413
                                        B(ZnLA)=11.70
                                        B(ZnLB)=11.73
                                        B(ZnL(Orn))=12.28
HA=2,3-Diaminopropanoic acid, HB=2,4-diaminobutanoic acid
-------------------------------------------------------------------------------
Zn++       gl  KNO3   30°C 0.10M U                       1990APa (31730)1414
                                        K(Zn+H2L=ZnL+2H)=-7.35
                                        *K(ZnL)=-8.71
                                        K(Zn+2H2L=ZnL2+4H)=-16.50
                                        K(Zn+HL=ZnL+H)=-3.95
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 1.00M U        K1=5.64   B2=9.62   1990BFa (31731)1415
```

```
                                        B3=12.38
                                        B(ZnHL)=10.49
                                        B(ZnHL2)=16.12
                                        B(ZnH2L3)=26.50
Zn(Hg) and glass electrodes
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M                  1989MAd (31732)1416
                                        K(ZnA+L)=9.15
                                        B(ZnAL)=16.00
H2A is N-(2-acetamido)imino diethanoic acid.
-------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.20M U    M   K1=5.23   B2=9.32   1989RVa (31733)1417
                                        K(ZnA+L)=4.57
A=bis(imidazol-2-yl)methane
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 27°C 0.20M U    M   K1=5.74   B2= 9.83  1988PPc (31734)1418
                                        K(ZnA+L)=5.52
A is 2,2'-dipyridylamine.
-------------------------------------------------------------------------------
Zn++       ISE KNO3   25°C 0.10M U    M   K1=5.76   B2=10.09  1985DVa (31735)1419
                                        K(ZnL+H)=7.75
                                        K(Zn(IDA)+L=Zn(IDA)L)=3.85
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 21°C 0.10M U        K1=5.90   B2=10.17  1983LWb (31736)1420
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M M        K1=5.77   B2= 9.82  1981GVa (31737)1421
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  30°C 0.20M C        K1=5.79   B2=10.05  1981RSd (31738)1422
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.31M M        K1=5.66   B2=10.14  1979GRb (31739)1423
-------------------------------------------------------------------------------
Zn++       gl  KCl    30°C 0.10M U    M   K1=5.85   B2=10.17  1979SJb (31740)1424
                                        K(ZnL+Thiomalate)=6.57
                                        K(ZnL+Thiodiglycolate)=6.93
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M C        K1=6.01   B2=10.10  1976MTa (31741)1425
                                        B(ZnHL)=11.88
                                        B(ZnL2H-2)=-10.41
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 30°C 0.20M U        K1=5.74   B2=9.83   1975JBb (31742)1426
-------------------------------------------------------------------------------
Zn++       nmr oth/un 32°C 0.50M U        K1=5.40   B2=8.55   1973HAb (31743)1427
                                        K(Zn+HL)=1.19
35Cl probe
-------------------------------------------------------------------------------
Zn++       nmr oth/un 24°C 0.10M U        K2=4.5          1973IYa (31744)1428
                                        K(ZnL+H)=5.3
Mediun: 0.1 M aspartic acid
-------------------------------------------------------------------------------
Zn++       gl  oth/un 15°C .005M U        B2=10.4         1953PEa (31745)1429
```

Medium: 0.005 M ZnSO4

Zn++ gl oth/un 20°C 0.01M U B2=10.4 1952ALa (31746)1430

Zn++ gl KCl 30°C 0.10M U K1=5.84 B2=10.15 1952CMb (31747)1431

****

C4H7NO4 H2L IDA CAS 142-73-4 (118)

Iminodiethanoic acid; HN(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	35°C	0.10M	C	M	K1=7.79 B(ZnAL)=10.04	1999DSb (32128)	1432

A is thiamine hydrochloride.

Zn++ gl NaNO3 25°C 0.10M M K1=7.04 1996KSc (32129)1433

Zn++ gl NaClO4 25°C 0.20M M M 1996VBa (32130)1434

K(Zn(ala)+L)=4.50
K(Zn(phe)+L)=4.03
K(Zn(tyr)+L)=3.91
K(Zn(trp)+L)=4.11
K(Zn(gly-gly)+L)=2.99, K(Zn(gly-ala)+L)=2.93, K(Zn(en)+L)=4.94

Zn++ gl NaClO4 25°C 0.50M U K1=6.97 B2=12.39 1992GLa (32131)1435

B(ZnH-1L)=-1.31
B3=11.76

Zn++ gl NaClO4 37°C 0.15M U M K1=7.00 B2=12.39 1992NAa (32132)1436

B(ZnLA)=12.04
B(ZnL(Orn))=12.45

HA=2,4-diaminobutanoic acid

Zn++ gl NaClO4 37°C 0.15M U M K1=7.00 B2=12.39 1992RAc (32133)1437

B(ZnHL2)=18.17
B(CuLZn)=13.13, B(CuL2Zn)=20.13; B(NiLZn)=10.99, B(NiL2Zn)=18.44

Zn++ gl KNO3 25°C 0.10M C M K1=7.24 1991DAc (32134)1438

Data for ternary complexes with acetohydroxamic acid

Zn++ gl KNO3 25°C 0.10M C M K1=7.24 1990DAb (32135)1439

K(ZnL+A)=4.01
B(ZnLA)=11.25

H2A: salicylaldoxime

Zn++ gl KNO3 25°C 0.10M C M K1=7.24 1990DAc (32136)1440

K(ZnL+A)=3.59
B(ZnAL)=10.83

HL: benzohydroxamic acid

```
Zn++       EMF KCl    25°C 0.10M U        K1=7.44        1985SNa (32137)1441
                                          K1=7.63 by spectrophotometry
--------------------------------------------------------------------------------
Zn++       cal KNO3   25°C 0.50M U   H                   1983VRa (32138)1442
DH(K1)=-11.34 kJ mol-1, DH(B2)=-27.91
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U TIH    K1=5.95   B2=10.37  1982DBb (32139)1443
Data for 0.2, 0.3 M. At I=0, K1=5.08, K2=3.96. Data for 35 and 45 C.
DH(K1)=-5.77 kJ mol-1, DS(K1)=91.5 J K-1 mol-1; DH(K2)=-4.23, DS(K2)=68.2.
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U  I     K1=7.2    B2=12.45  1981FMb (32140)1444
Interpolated from graph. Data also for 20, 50, 80% v/v MeOH/H2O
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  30°C 0.20M C        K1=6.98   B2=12.12  1981RSe (32141)1445
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U T HM                   1978KCc (32142)1446
                                          K(ZnL+A)=6.74
                                          K(ZnL+B)=11.69
                                          K(ZnL+C)=11.08
DH(K1)=-17.6 kJ mol-1, DS=70 J K-1 mol-1. H2A=oxalic acid, H2B=malonic acid,
H2C=phthalic acid
--------------------------------------------------------------------------------
Zn++       nmr oth/un 32°C 0.10M U        K1=6.11   B2=11.03  1973HAb (32143)1447
35Cl probe
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U    M                   1971TSh (32144)1448
                                          K(ZnL+Ala)=3.98
                                          K(ZnL+Gly)=4.38
                                          K(ZnL+Asp)=4.59
--------------------------------------------------------------------------------
Zn++       gl  KNO3   30°C 0.10M U    M                   1971TSj (32145)1449
                                          K(ZnL+A)=5.14
A=1,2-diaminopropane
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 1.50M U    M                   1970FDa (32146)1450
                                          B(ZnL(SCN)(NH3)2)=11.35
                                          B(ZnL(NH3)(SCN)2)=10.25
                                          B(ZnL(SCN)3)=9.02
                                          B(ZnL(S2O3)(NH3)2)=11.92
B(ZnL(NH3)(S203)2)=11.59; B(ZnL(S2O3)3)=11.15
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 1.50M U    M   K1=7.03        1970FDa (32147)1451
                                          B(ZnL(NH3))=9.42
                                          B(ZnL(py))=7.98
                                          B(ZnL(NH3)2)=11.02
                                          B(ZnL(py)2)=8.33
Data for other ternary complexes also given
--------------------------------------------------------------------------------
Zn++       EMF oth/un 30°C 0.10M U    M                   1970STf (32148)1452
                                          K(ZnL+en)=4.96
```

K(ZnL+A)=5.14
A=1,2-diaminopropane

Zn++ gl KNO3 20°C 0.10M U H K1=7.27 B2=12.60 1964ANa (32149)1453
By calorimetry: DH(K1)=-9.2 kJ mol-1, DS=107.4 J K-1 mol-1
DH(B2)=-24.7, DS=157

Zn++ gl oth/un 25°C 0.10M U K1=7.03 B2=12.17 1957SYb (32150)1454

Zn++ gl KCl 30°C 0.10M U K1=7.03 B2=12.17 1952CMa (32151)1455
****
C4H7NO5 H2L (1234)
N-Hydroxyiminodiethanoic acid; HO.N(CH2.COOH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C K1=5.5 B2=9.46 1987AKa (32420)1456

Zn++ gl KNO3 25°C 0.10M U K1=5.5 B2=9.46 1987BKa (32421)1457
****
C4H7N3S L CAS 14068-53-2 (1456)
2-Amino-5-ethyl-1,3,4-thiadiazole; C2N2S(C2H5).NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.50M U K1=0.56 1985GLa (32443)1458
****
C4H7N3S L CAS 13275-68-8 (1427)
2-Ethylamino-1,3,4-thiadiazole; C2HN2S.NHC2H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.50M U K1=0.53 B2=0.61 1982GLa (32449)1459
****
C4H8NO2Cl HL (8170)
3-Chloro-2-aminobutanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C K1=4.75 B2= 8.67 1981TMe (32467)1460
Also data for the schiff based formed with pyridoxal.
****
C4H8NO4P H2L (7286)
5-Oxopyrrolidine-2-phosphonic acid; PO3H2.C4H6NO

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.20M C K1=2.09 1996MKa (32471)1461
B(ZnH-1L)=-5.97
B(ZnH-2L)=-13.96

K(Zn+OH+L)=8.97
K(Zn+2OH+L)=13.54
Additional method: nmr. Data also for 2-methyl and 2-methyl-2-phenyl analogs
****
C4H8N2O2 H2L Dimethylglyoxim CAS 95-45-4 (2032)
2,3-Butanedione dioxime, Dimethylglyoxime; CH3.(C:NOH).(C:NOH).CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 50% U K1=7.7 B2=13.9 1954CFa (32518)1462
****
C4H8N2O3 HL Asparagine CAS 70-47-3 (17)
2-Aminobutanedioic acid 4-amide; H2N.CH(CH2.CO.NH2).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M M M K1=5.82 1996AEa (32644)1463
Data for ternary complexes with dipicolinic acid.

Zn++ EMF NaCl 25°C 1.00M C K1=4.43 B2=7.95 1996BFa (32645)1464
B3=9.35
Method: Zn/Hg electrode

Zn++ vlt KNO3 25°C 0.10M C M K1=4.40 B2= 8.52 1991KNb (32646)1465
B3=10.43
B(ZnAL)=6.13
B(ZnA2L)=8.48
B(ZnAL2)=9.83
Method: polarography, medium pH 8.5. HA is ethanoic acid.

Zn++ gl NaClO4 21°C 0.10M M M K1=4.25 B2= 8.02 1989WLa (32647)1466
B(Zn(gly)L)=10.01
B(ZnH-1(gly)L)=2.63

Zn++ gl NaClO4 21°C 0.10M U K1=4.52 B2=7.86 1983LWb (32648)1467

Zn++ gl KNO3 25°C 0.10M U T H B2=8.62 1980ZYb (32649)1468

Zn++ gl NaClO4 25°C 3.00M C H T K1=5.070 B2=9.426 1974BWa (32650)1469
B3=12.300

Zn++ gl oth/un 15°C .005M U B2=8.5 1953PEa (32651)1470
Medium: 0.005 M ZnSO4

Zn++ gl oth/un 20°C 0.01M U B2=8.7 1950ALa (32652)1471
****
C4H8N2O3 HL Gly-Gly CAS 556-50-3 (54)
Glycyl-glycine; H2N.CH2.CO.NH.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

```
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.20M U    M   K1=3.78   B2= 6.52  1997PJa (32945)1472
                                         K(Zn(bpy)+L)=3.36
                                         K(Zn(phen)+L)=3.73
                                         K(ZnA+L)=3.57
                                         K(Zn(his)+L)=3.32
A is 2,2'-bipyridylamine. K(Zn(ida)+L)=3.25.
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.20M M        K1=3.74        1996VBa (32946)1473
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.20M M    M   K1=3.745  B2= 6.61  1994VBb (32947)1474
                                         B(ZnH-1L)=-3.556
B(Zn(Ala)L)=8.854, B(Zn(Phe)L)=8.693, B(Zn(Tyr)L)=8.768,
B(Zn(Trp)L)=8.910, B(Zn(His)L)=10.874, B(ZnH(His)L)=16.801.
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.20M M        K1=3.745  B2= 6.61  1994VBc (32948)1475
--------------------------------------------------------------------------------
Zn++       nmr KCl    25°C 0.60M U    M   K1=0.74   B2=3.47   1992CPa (32949)1476
                                         B(ZnL(cytidine))=4.01
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=3.62        1992LPc (32950)1477
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M U    M   K1=3.78   B2=6.60   1990NJa (32951)1478
                                         B(ZnL(His))=8.75
                                         B(ZnL(histamine))=8.21
                                         B(ZnL(imidazole))=5.43
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  37°C 0.15M M    M   K1=3.37   B2=6.91   1987MOb (32952)1479
                                         B(ZnLA)=6.77
                                         B(ZnLA3)=12.56
A=imidazole. Also B(ZnL2B)=13.81, B(ZnLB2)=15.16, B(ZnH4LB2)=47.69, where
B=pyridoxamine.  Also ternary ZnHLAB complexes.
--------------------------------------------------------------------------------
Zn++       oth NaClO4 35°C 0.10M C    M   K1=3.20   B2= 5.29  1986SYa (32953)1480
                                         K(Zn(nta)+L)=2.22
Method: paper electrophoresis. Medium pH 8.5.
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  35°C 0.10M U    M   K1=3.50        1985KSc (32954)1481
                                         K(ZnL+CMP)=2.06
H2CMP=cytidine-5'-monophosphoric acid
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C    M                  1984KDb (32955)1482
                                         K(Zn(DOPA)+L)=3.23
                                         B(ZnHL(DOPA))=23.46
Ternary data also with Dopamine, Adrenaline and Noradrenaline
H3DOPA=3,4-dihydroxyphenylalanine
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.20M U        K1=3.25   B2=6.20   1982KRc (32956)1483
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M U        K1=3.574  B2=5.880  1975CMa (32957)1484
```

B3=8.015
B(ZnHL)=9.150

Zn++ vlt KNO3 25°C 1.0M U K1=3.70 B2=6.97 1974NBa (32958)1485

Zn++ gl KNO3 25°C 0.10M U K1=3.45 B2=6.31 1972BBc (32959)1486

Zn++ gl oth/un 25°C 0.14M U T K1=3.59 B2=6.56 1972PEb (32960)1487
Temperature range 10-40C
K1(10 C)=3.72, K1(40 C)=3.27, B2(10 C)=7.06, B2(40 C)=6.06

Zn++ gl diox/w 25°C 45% U T K1=5.02 B2=9.05 1972PEb (32961)1488
Temperature range 10-40C
K1(10 C)=5,43, K1(40 C)=4.75, B2(10 C)=9.60, B2(40 C)=8.57

Zn++ gl alc/w 25°C 70% U I K1=4.91 B2=8.86 1972PEb (32962)1489
K1(39.1%)=4.09, B2(39.1%)=7.49

Zn++ gl diox/w 25°C 60% U K1=5.87 B2=10.43 1972PEb (32963)1490

Zn++ nmr oth/un 25°C 0.80M U K1=3.13 1972RLb (32964)1491
K(Zn+HL)=0.64
Medium: 0.8M, 0.2 Zn(NO3)2

Zn++ gl KCl 25°C .058M U T K1=3.91 B2=7.22 1961SMa (32965)1492
0 C: K1=4.06, K2=3.50

Zn++ gl KCl 20°C 1.0M U K1=2.62 1959PEc (32966)1493

Zn++ gl oth/un 25°C 0.01M U K1=3.6 1954PEa (32967)1494

Zn++ gl oth/un 21°C 0.01M U B2=6.4 1952PEa (32968)1495
Medium: ZnSO4

Zn++ gl oth/un 25°C ->0 U K1=3.80 B2=6.57 1951MOa (32969)1496

****

C4H8N2O4 H2L HDA CAS 19247-05-3 (1025)
Hydrazine-N,N'-diethanoic acid; HOOC.CH2.NH.NH.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl KCl 30°C 0.10M U K1=6.0 B2=10.7 1957TBb (33076)1497

Zn++ gl oth/un 20°C 0.01M U K1=6.7 1956ARb (33077)1498

****

C4H8N2O4 H2L (6369)
N(1)-Hydroxyasparagine, aspartyl-beta-hydroxamic acid; H2N.CH(CH2.CO.NHOH).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

```
Zn++       gl  KCl    25°C 0.20M C        K1=7.44        1993FBa (33129)1499
                                          B(ZnHL)=13.91
                                          B(Zn2HL)=20.30
                                          B(Zn2L)=11.72
                                          B(Zn2H-1L)=2.11
-------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C        K1=7.44   B2=11.72  1990FBa (33130)1500
                                          B(ZnHL)=13.91
                                          B(ZnHL2)=20.30
                                          B(ZnH-1L2)=2.11
*******************************************************************************
C4H8OS2                HL                     CAS 6253-38-9  (589)
(Propoxy)dithiomethanoic acid; CH3.CH2.CH2O.CSSH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       vlt KNO3   25°C 0.40M C                         1984HSb (33194)1501
                                          B3=9.00
Method: polarography.
-------------------------------------------------------------------------------
Zn++       dis KNO3   25°C 1.00M U        K1=3.2    B2=6.3    1983SAa (33195)1502
*******************************************************************************
C4H8OS2                HL                     CAS 108-25-8  (8865)
Isopropoxydithiomethanoic acid;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       vlt KNO3   25°C 0.40M C                         1984HSb (33199)1503
                                          B3=10.15
Method: polarography.
*******************************************************************************
C4H8O2                 HL    Isobutyric acid  CAS 79-31-2  (573)
2-Methylpropanoic acid; CH3.CH(CH3).COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C  I M   K1=1.01        1988LTc (33219)1504
                                          K(Zn(phen)+L)=0.90
Data also for 50% v/v EtOH/H2O, and 50% v/v Dioxan/H2O mixtures
*******************************************************************************
C4H8O2                 HL                     CAS 107-92-6  (1118)
n-Butanoic acid; CH3.CH2.CH2.COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       oth NaClO4 25°C  2.0M U        K1=0.95        1990FTa (33306)1505
Methods: averaged results from potentiometric, polarographic and
spectrophotometric measurements.
-------------------------------------------------------------------------------
Zn++       EMF NaClO4 25°C 2.00M U        K1=0.97   B2=1.65   1973FPa (33307)1506
```

```
                                        B3=1.73
                                        B4=2.57
-------------------------------------------------------------------------------
Zn++       EMF NaClO4 25°C 2.00M U       K1=0.98   B2=0.70   1970FMa (33308)1507
                                        B3=2.16
-------------------------------------------------------------------------------
Zn++       vlt NaClO4 25°C 2.00M U       K1=1.00   B2=1.11   1968FPa (33309)1508
                                        B3=1.18
                                        B4=1.53
-------------------------------------------------------------------------------
Zn++       EMF KCl    25°C 0.20M U       K1=1.00        1938CKa (33310)1509
Method: H electrode
*******************************************************************************
C4H8O2S               H2L                     CAS 26473-48-3  (3018)
2-Mercaptobutanoic acid; CH3.CH2.CH(SH)COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  KCl    30°C 0.10M U                        1964PCa (33360)1510
                                        K(Zn+HL)=2.20
*******************************************************************************
C4H8O2S                HL                     CAS 623-51-8  (4265)
Ethyl-2-mercaptoacetate; HS.CH2.CO2.C2H5
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       vlt NaClO4 25°C 1.00M U       K1=6.20   B2=9.20   1972TBc (33363)1511
                                        B4=15.85
*******************************************************************************
C4H8O2S                HL                     CAS 627-04-3  (3007)
S-Ethylthioethanoic acid; CH3.CH2.S.CH2.COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       cal NaNO3  25°C  1.0M U   H    K1=0.74   B2= 1.20  1977ARa (33393)1512
                                        K3=-0.06
DH(K1)=5 kJ mol-1, DH(K2)=0, DH(K3)=37
-------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U       K1=2.22        1972SGa (33394)1513
                                        K(Zn(bpy)+L)=2.18
Medium: 50% dioxan, 0.1 M NaClO4
-------------------------------------------------------------------------------
Zn++       ISE NaClO4 25°C 1.00M U       K1=0.73   B2=1.20   1970SAa (33395)1514
                                        B3=1.15
-------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U       K1=2.22        1969SAa (33396)1515
Medium: 50% dioxan, 0.1 M NaClO4
-------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  50%  U       K1=3.14        1956IFa (33397)1516
*******************************************************************************
```

C4H8O3 HL CAS 594-61-6 (81)
2-Hydroxy-2-methylpropanoic acid; (CH3)2C(OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	EMF	NaClO4	25°C	1.0M	U		K1=1.70	B2=2.99	1967TGa	(33436)1517
							K3=0.4			

Method: quinhydrone electrode

****

C4H8O3 HL CAS 965-70-8 (423)
2-Hydroxybutanoic acid; CH3.CH2.CH(OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	oth	NaClO4	25°C	2.0M	U		K1=1.72		1990FTa	(33567)1518

Methods: averaged results from potentiometric, polarographic and spectrophotometric measurements.

Zn++	EMF	NaClO4	25°C	2.00M	U		K1=1.72	B2=3.02	1973FPa	(33568)1519
							B3=3.84			
							B4=4.24			
Zn++	gl	KCl	30°C	0.10M	U		K1=2.05		1938CKa	(33569)1520

****

C4H8O3 HL CAS 300-85-6 (30)
3-Hydroxybutanoic acid; CH3.CH(OH).CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	oth	NaClO4	25°C	2.0M	U		K1=0.99		1990FTa	(33606)1521

Methods: averaged results from potentiometric, polarographic and spectrophotometric measurements.

Zn++	gl	NaClO4	37°C	0.15M	C		K1=5.81		1976MTa	(33607)1522
Zn++	EMF	NaClO4	25°C	2.00M	U		K1=0.99	B2=1.71	1973FPa	(33608)1523
							B3=1.49			
							B4=2.50			
Zn++	EMF	KCl	25°C	0.20M	U		K1=1.06		1938CKa	(33609)1524

Method: H electrode

****

C4H8O3 HL CAS 591-81-1 (39)
4-Hydroxybutanoic acid; HO.CH2.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	EMF	NaClO4	25°C	2.00M	U		K1=0.96	B2=1.56	1973FPa	(33648)1525
							B3=1.53			
							B4=2.38			

****
C4H8O3 HL Ethoxyacetic ac CAS 627-03-2 (2996)
Ethoxyacetic acid; C2H5.O.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	cal	NaNO3	25°C	1.0M	U	H	K1=1.13	B2= 1.87	1977ARa	(33668)1526
							K3=-0.09			

DH(K1)=4.5 kJ mol-1, DH(K2)=5.0, DH(K3)=15

Zn++	ISE	NaClO4	25°C	1.00M	U		K1=1.13	B2=1.87	1970SAa	(33669)1527
							B3=1.8			

****
C4H8S L CAS 110-01-0 (150)
Tetrahydrothiophene; cyclo(-CH2.CH2.S.CH2.CH2-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	alc/w	25°C	50%	C		K1=-0.21		1979SRa	(33726)1528

****
C4H9NO L Morpholine CAS 110-91-8 (318)
Perhydro-1,4-oxazine, Tetrahydro-1,4-oxazine; C4H8NO

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	sp	oth/un	25°C	?	U	M			1981CKb	(33783)1529
							K(Zn(C6H5)4porphin+L)=-0.30			

Zn++	ISE	R4N.X	25°C	2.00M	U		K1=2.26	B2=4.46	1969PDa	(33784)1530
							K3=2.26			
							K4=2.20			

Medium: NH4NO3

****
C4H9NO2 HL Aminoisobutyric CAS 144-90-1 (188)
2-Amino-2-methylpropanoic acid; H2N.C(CH3)2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	35°C	0.10M	C	M	K1=4.78	B2= 9.21	1998ZWa	(33829)1531

Data for ternary complexes with 3,3,9,9-tetramethyl-4,8-diazaundecane-2,10-dione dioxime
---
Zn++	gl	KCl	25°C	0.50M	U	M	K1=3.85	B2=8.88	1966LHc	(33830)1532
							B(ZnAL)=6.28			
							B(ZnA2L2)=12.6	(pptn.)		

HA=glyoxylic acid

Zn++	gl	KCl	20°C	0.10M	U		K1=4.55	B2=8.55	1963IPa	(33831)1533

Zn++	gl	oth/un	19°C	0.01M	U		B2=8.8		1952PEa	(33832)1534

Medium: ZnSO4
****
C4H9NO2 HL 2-Aminobutyric CAS 2835-81-6 (571)
2-Aminobutanoic acid; CH3.CH2.CH(NH2).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.05M U K1=4.50 B2=8.65 1972GMb (33893)1535

Zn++ gl KCl 40°C 0.20M U T H K1=4.68 B2=8.44 1965SMb (33894)1536
K1=4.87(15 C),4.78(25 C); K2=3.96(15 C),3.90(25 C)
DH(K1)=-13.0 kJ mol-1,DS=46.0 J K-1 mol-1; DH(K2)=-13.8,DS=29.3

Zn++ gl KCl 30°C 0.10M U K1=4.55 B2=8.26 1964PCa (33895)1537

Zn++ gl oth/un 15°C .005M U B2=7.2 1953PEa (33896)1538
Medium: 0.005 M ZnSO4

Zn++ gl oth/un 20°C 0.01M U B2=8.3 1952PEa (33897)1539
Medium: ZnSO4
****
C4H9NO2 L CAS 623-33-6 (3011)
Glycine ethyl ester; H2N.CH2.CO.OCH2CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 30°C 1.0M U K1=1.79 B2=3.69 1966HJa (34000)1540
****
C4H9NO2 HL Dimethylglycine CAS 1118-68-9 (88)
N,N-Dimethyl-2-aminoethanoic acid; (CH3)2N.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 21°C 0.10M M K1=3.58 B2=6.99 1984LOb (34026)1541
B(ZnH-1L2)=-3.88
****
C4H9NO2S HL CAS 88806-98-8 (3019)
2-Amino-3-mercaptopropanoic acid methyl ester, cysteine methyl ester;
HSCH2CH(NH2)COOCH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C T M K1=8.28 2000RRa (34050)1542
B(ZnLA)=17.09
H2A is histidine methyl ester. Data for 35 and 45 C.
DH(ZnLA)=-177 kJ mol-1, DS(ZnLA)=-266 J K-1 mol-1.

Zn++ gl KNO3 25°C 0.10M U B2=15.91 1969PPd (34051)1543
B(ZnHL)=11.90
B(ZnHL2)=20.76

```
                                        K(Zn+L=ZnLOH+H)=0.41
                                        K(ZnLOH+H)=7.8
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.15M U        K1=2.35        1955LMa (34052)1544
********************************************************************************
C4H9NO2S               HL    Methylcysteine   CAS 1187-84-4  (84)
2-Amino-3-methylmercaptopropanoic acid; H2N.CH(CH2.S.CH3)COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M M        K1=4.30   B2=12.12  1993GVa (34082)1545
--------------------------------------------------------------------------------
Zn++       oth NaClO4 30°C 0.10M C    M   K1=4.55   B2= 8.70  1991TSc (34083)1546
                                        K(Zn(nta)+L)=3.72
Method: electrophoresis. Medium: pH 5.8.
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M M    M                  1989SHd (34084)1547
                                        K(Zn(nta)+L)=2.84
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=4.46   B2=8.52   1964LMa (34085)1548
********************************************************************************
C4H9NO2S               HL                      CAS 29768-80-7  (2597)
2-Amino-4-mercaptobutanoic acid; HOOC.CH(NH2).CH2.CH2.SH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M M    M                  1989SHd (34110)1549
                                        K(Zn(nta)+L)=4.91
                                        K(Zn(nta)+H+L)=13.83
********************************************************************************
C4H9NO3                HL    Threonine        CAS 72-19-5  (48)
2-Amino-3-hydroxybutanoic acid; H2N.CH(CH(OH).CH3)COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       vlt NaClO4 25°C  1.0M C    M                  1999VKc (34244)1550
                                        B(ZnLA)=4.96
                                        B(ZnLA2)=7.93
                                        B(ZnL2A)=10.16
Method: polarography. Medium pH: 8.5. A is 4-picoline.
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C  1.0M U    M   K1=4.34   B2= 7.46  1995KDa (34245)1551
                                        K3=2.16
                                        B(ZnLA)=6.27
                                        B(ZnLA2)=8.69
                                        B(ZnL2A)=10.09
Medium pH 8.50. HA is propanoic acid.
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.20M U T  M   K1=5.16   B2= 9.35  1993PPa (34246)1552
                                        K(ZnA+L)=4.85
```

A is 2,2'-bipyridylamine. Also data for 35 and 45 C.

Zn++ gl NaCl 37°C 0.15M U M 1991HWa (34247)1553
B(ZnLA)=9.161
B(ZnHLA)=16.330
B(ZnH2LA)=20.398
H2A is 7-oxabicyclo-[2,2,1]-hept-5-ene-2,3-dicarboxylic acid

Zn++ gl KNO3 25°C 0.10M C M 1989MAd (34248)1554
K(ZnA+L)=4.14
B(ZnAL)=10.99
H2A is N-(2-acetamido)imino diethanoic acid.

Zn++ gl KNO3 35°C 0.20M U M K1=4.69 B2=8.53 1989RVa (34249)1555
K(ZnA+L)=4.21
A=bis(imidazol-2-yl)methane

Zn++ gl NaClO4 27°C 0.20M U M K1=5.16 B2= 9.35 1988PPc (34250)1556
K(ZnA+L)=4.85
A is 2,2'-dipyridylamine.

Zn++ gl NaCl 37°C 0.15M U M K1=4.52 B2=7.89 1986XHa (34251)1557
B(ZnHL)=10.13
B(ZnH-1L)=-2.93
B(ZnL(His))=10.70
B(ZnH-1L(His))=1.832
B(ZnL(His)2)=14.66

Zn++ gl KNO3 25°C 0.10M U K1=4.66 1985MKa (34252)1558

Zn++ gl oth/un 30°C 0.20M U M K1=5.16 1984JOb (34253)1559
K(Zn(bpy)+L)=4.89
Medium: not stated.

Zn++ gl KCl 25°C 0.20M C M K1=4.53 B2=8.38 1981GEa (34254)1560
B(ZnH-1L)=-4.09
B(ZnH-1L2)=-1.5
B(ZnL(His))=10.10. Ligand: L-Threonine

Zn++ gl KCl 25°C 0.20M C M K1=4.54 B2=8.40 1981GEa (34255)1561
B(ZnH-1L)=-4.0
B(ZnH-1L2)=-1.5
B(ZnL(His))=10.48. Ligand: D-Threonine

Zn++ gl KCl 25°C 0.20M C K1=4.54 B2=8.45 1981GEa (34256)1562
B(ZnH-1L)=-4.2
B(ZnH-1L2)=-1.4
DL-isomer

Zn++ gl NaClO4 37°C 0.15M U T K1=4.47 B2=8.28 1980KBa (34257)1563

B(ZnH-1L)=-1.16

Zn++ gl KCl 25°C 0.05M U T K1=4.67 B2=8.66 1972GMb (34258)1564
20-35C
K1(20 C)=4.71, K1(35 C)=4.60, K2(20 C)=4.02, K2(35 C)=3.92

Zn++ gl KNO3 40°C 0.20M U T H K1=4.76 B2=8.44 1968RMb (34259)1565
K1=4.79(15 C),4.74(25 C); K2=3.85(15 C),3.77(25 C)
DH(B2)=-18.8 kJ mol-1, DS=100.3 J K-1 mol-1

Zn++ gl oth/un 20°C .005M U B2=8.6 1953PEa (34260)1566
Medium: 0.005 ZnSO4
****
C4H9NO3 HL Homoserine CAS 1927-25-9 (578)
2-Amino-4-hydroxybutanoic acid; HO.CH2.CH2.CH(NH2).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.10M U K1=4.54 B2=8.06 1971BDc (34353)1567
****
C4H9NO3 HL CAS 4385-95-9 (1894)
2-Aminooxybutanoic acid;CH3.CH2.CH(O.NH2).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.50M U K1=1.95 1985WTa (34363)1568
****
C4H10NO5P H3L (6029)
2-Amino-3-phosphonatobutanoic acid; CH3.CH(H2O3P).CH(NH2).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 20°C 0.10M U K1=7.13 1987BDc (34448)1569
K(Zn+HL)=2.78
****
C4H10NO5P H3L CAS 6323-99-5 (6043)
2-Amino-4-phosphonatobutanoic acid; H2O3P.CH2.CH2.CH(NH2)COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.20M C K1=5.94 B2=10.48 1996MKa (34458)1570
B(ZnHL)=12.39
Additional method: nmr.

Zn++ gl KCl 25°C 0.20M C K1=6.55 B2=10.72 1989KFb (34459)1571
B(ZnHL)=13.18

Zn++ gl KCl 20°C 0.10M U K1=6.08 1987BDc (34460)1572
K(Zn+HL)=3.68
****

C4H10NO5P H3L CAS 18865-31-1 (7285)
4-Amino-4-phosphonobutanoic acid; H2N(PO3H2)CHCH2CH2COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C		K1=6.51		1996MKa	(34466)1573

Additional method: nmr.

****

C4H10NO6P H2L CAS 6401-59-8 (2399)
O-Phospho-2-methylserine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.20M	C		K1=5.93	B2=10.38	1978MAc	(34472)1574
							K(Zn+HL)=1.90			
							K(ZnHL+L)=1.89			
							K(ZnL+H)=6.04			

****

C4H10NO6P H2L CAS 1114-81-4 (2400)
O-Phospho-threonine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.20M	C		K1=6.00	B2=10.29	1978MAc	(34480)1575
							K(Zn+HL)=2.25			
							K(ZnL+H)=5.92			

****

C4H10N2 L CAS 56123-06-9 (8023)
1,3-Diamino-2-methylenepropane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=4.63	B2= 9.35	1975HSb	(34487)1576

****

C4H10N2O2 HL CAS 1883-09-6 (45)
2,4-Diaminobutanoic acid; H2N.CH2.CH2.CH(NH2)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	37°C	0.15M	U		K1=7.84	B2=12.55	1993NAd	(34559)1577
							B(Zn2L2)=20.32			
Zn++	gl	NaClO4	37°C	0.15M	U	M			1990NTb	(34560)1578
							B(Zn(glu)L)=11.29			
							K(Zn(glu)+L)=5.9			
Zn++	gl	NaClO4	37°C	0.15M	C	M	B2=13.44		1986NPa	(34561)1579
							B(ZnHL)=14.22			
							B(ZnH2L2)=27.04			
							B(ZnHL2)=21.47			

B(ZnLA)=12.87; B(ZnHLA)=19.65; A=histamine. Also histidine

Zn++	gl	KCl	25°C	0.20M	C	K1=6.70 B(ZnHL)=13.97 B(ZnH2L2)=27.55 B(ZnHL2)=20.32	B2=12.30	1981FGb	(34562)1580

Zn++	gl	oth/un	20°C	0.01M	U	B2=12.8		1952ALa	(34563)1581

****

C4H10N2O2 HL (2557)

2-Amino-3-(methylamino)propanoic acid, CH3.NH.CH2.CH(NH2)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=5.98 B(ZnHL)=13.22 B(ZnH2L2)=24.9 B(ZnHL2)=18.97 B3=14.54	B2=11.45	1989NOa	(34573)1582

****

C4H10N2O2 HL EDMA (2784)

Diaminoethane-N-ethanoic acid; H2N.CH2.CH2.NH.CH2.COOH

Zn++	gl	KCl	25°C	0.50M	C		K1=8.064	B2=13.655	1985LEa (34586)1583
Zn++	vlt	NaClO4	25°C	0.30M	U		K1=8.22		1974KOb (34587)1584
Zn++	vlt	oth/un	25°C	0.20M	U		K1=8.20		1970FUa (34588)1585

Medium: Na ethanoate

****

C4H10N2O4S HL ACES CAS 7365-82-4 (7488)

N-(2-Acetamido)-2-aminoethanesulfonic acid;

Zn++	gl	KNO3	25°C	0.10M	C	M	K1=4.39		2001AAa (34615)1586

Also data for ternary complexes with 5'-GMP, 5'-IMP and 5'-CMP.

Zn++	gl	KNO3	25°C	0.10M	C		K1=3.85		2000ADa (34616)1587

.

****

C4H10N4O2 L CAS 4146-43-4 (2564)

1,4-Butanedioic acid dihydrazide; H2N.NH.CO.CH2.CH2.CO.NH.NH2

Zn++	gl	NaNO3	25°C	0.20M	U		K1=1.95	B2=4.24	1974FSa (34644)1588

```
Zn++       vlt NaClO4 25°C  1.0M U        K1=2.26   B2=4.34   1968SUa (34645)1589
                                         B3=5.10
                                         B4=4.63
**************************************************************************
C4H10O2S                L                      CAS 111-48-8  (4275)
3-Thiapentan-1,5-diol; HO.CH2.CH2.S.CH2.CH2.OH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C  1.0M C        K1=-0.18       1979SRa (34675)1590
**************************************************************************
C4H10O2S2             H2L    Dithiothreitol   CAS 3483-12-3  (8164)
Threo-2,3-Dihydroxy-1,4-dithiobutane
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=11.06  B2=17.95  2001KLb (34693)1591
                                         B(Zn3L4)=50.9
                                         B(ZnH-1L2)=7.5
B(ZnH-1L2) by spectrophotometry.
**************************************************************************
C4H11N                  L    Butylamine       CAS 109-73-9  (159)
1-Aminobutane; CH3.CH2.CH2.CH2.NH2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       cal non-aq 25°C 100%  C  IH                    2002LVa (34745)1592
                                         K(ZnP+L)=3.66
                                         K(ZnPL+L)=3.02
Medium: CCl4. ZnP: Zn(II)tetraphenylporphyrine. DH(ZnP+L)=-48.37 kJ mol-1,
DS=-92 J K-1 mol-1; DH(ZnPL+L)=-15.16, DS=7. Data for related alkylamines.
--------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U                      1994IUa (34746)1593
                                         K(ZnP+L)=4.88
Medium: CHCl3.  ZnP is a zinc porphyrin host.
--------------------------------------------------------------------------
Zn++       sp  non-aq 15°C 100%  U    M                 1993MEa (34747)1594
                                         K(ZnA+L)=3.65
                                         K(ZnB+L)=3.20
In chloroform. A=5,15-Bis(2-hydroxy-1-naphthyl)-2,3,7,8,12,13,17,18-octa-
ethylporphine, B=5,15-Bis(2-methoxy-1-naphthyl) deriv. of A
**************************************************************************
C4H11N                  L    Diethylamine     CAS 109-89-7  (1331)
Diethylamine, 3-azapentane; (C2H5)2NH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U                      1994IUa (34801)1595
                                         K(ZnP+L)=4.08
Medium: CHCl3.  ZnP is a zinc porphyrin host.
```

```
--------------------------------------------------------------------------------
Zn++       ISE R4N.X  25°C 2.00M U        K1=2.97   B2=5.57   1968PMc (34802)1596
                                         K3=2.34
                                         K4=1.92
                                         B4=9.82
Medium: NH4NO3
********************************************************************************
C4H11NO                 L                       CAS 110-73-6  (900)
2-(Ethylamino)ethanol; CH3.CH2.NH.CH2.CH2.OH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       vlt KNO3   25°C 0.10M U        K1=5.34   B2=6.18   1980AAa (34834)1597
                                         B3=7.15
********************************************************************************
C4H11NO2                L    Diethanolamine   CAS 111-42-2  (89)
2,2'-Iminodiethanol; HN(CH2.CH2.OH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       sp  R4N.X  25°C 2.00M C  I     K1=2.52   B2=4.40   1983DBa (34932)1598
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 2.00M U        K1=2.38        1970URa (34933)1599
--------------------------------------------------------------------------------
Zn++       vlt alc/w  25°C 100%  U  I     B2=14.85       1964MSd (34934)1600
                                         B3=15.30
Medium:EtOH,0.01 NaClO4. B2=6.6(0%),7.48(20%),8.15(40%),8.18(60%),9.18(80%),
11.6(94%); B3=8.08(0%),8.43(20%),9.46(40%),12.48(94%);B4=9.11(0%),16.52(100)
********************************************************************************
C4H11NO3                L    Tris buffer      CAS 77-86-1  (550)
2-Amino-2-(hydroxymethyl)-propan-1,3-diol; (HO.CH2)3C.NH2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       vlt NaCl   25°C 0.50M C  I                     1990PAa (35036)1601
                                         K1eff=2.47 (pH 8)
                                         B2eff=3.23 (pH 8)
Method: polarography. At pH 9, K1eff=3.44, B2eff=3.66.
--------------------------------------------------------------------------------
Zn++       gl  NaCl   25°C 0.15M C        K1=2.271       1983BSa (35037)1602
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M   K1=1.94        1979FHa (35038)1603
                                         K(Zn(ATP)+L) < 1.8
********************************************************************************
C4H11NO8P2            H5L                       CAS 2439-99-8  (2129)
N-Carboxymethyl-N,N-bis(methylenephosphonic acid); HOOC.CH2.N(CH2.PO3H2)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=14.46       2000SDa (35093)1604
```

```
                                        K(ZnL+H)=5.25
                                        K(ZnHL+H)=4.22
                                        K(ZnH2L+H)=2.7
                                        K(ZnL+OH)=2.6
--------------------------------------------------------------------------------
Zn++       ix  NaNO3   RT  0.10M U        K1=14.7        1985PMc (35094)1605
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U        K1=13.48       1974NKa (35095)1606
                                        K(Zn+HL)=8.18
                                        K(Zn+H2L)=6.02
********************************************************************************
C4H11NS                HL                      CAS 108-02-1  (1792)
1-Mercapto-2-(N,N-dimethyl)aminoethane; HS.CH2.CH2.N(CH3)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   20°C 0.25M U  I     K1=6.92   B2=13.44  1973MSd (35132)1607
O.25 KNO3, 25% MeOH: K1=7.30,  K2=6.89, 25% EtOH, K1=7.71, K2=7.38
********************************************************************************
C4H11N2O4P            H2L                       (7118)
Alanylaminomethylphosphonic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=3.817       1995HLa (35151)1608
                                        B(ZnH-1L)=-3.79
********************************************************************************
C4H11N3                 L                      CAS 171868-16-9  (7833)
cis-3,4-Diaminopyrrolidine;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C        K1=4.93   B2= 8.89  2001KSa (35160)1609
                                        B(ZnHL)=12.68
                                        B(ZnH-1L2)=-0.38
********************************************************************************
C4H11N3O                L                       (2704)
2-(Dimethylamino)acetamidoxime; (CH3)2N.CH2.C(:NOH)NH2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 1.00M C        K1=2.50   B2=4.19   1986OSa (35166)1610
********************************************************************************
C4H11N3O2              HL                      CAS 471915-94-3  (8550)
2,4-Diamino-N-hydroxybutanamide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C        K1=7.13   B2=12.05  2002ECa (35173)1611
                                        B(ZnHL)=14.34
```

B(ZnH-1L)=-0.96
B(ZnHL2)=20.77
B(ZnH-1L2)=1.6

****

C4H11N2O3P HL (7917)
(Glycylamino)methyl(methylphosphinic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=3.571 B2= 6.19	2001LKa	(35198)1612
							B(ZnHL)=9.61		
							B(ZnH-2L)=-13.50		

****

C4H11OPS2 HL CAS 995-79-9 (4283)
O-Ethyl hydrogen P-ethylphosphonodithioate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	alc/w	?	90%	U		B2=5.5	1971TCa	(35203)1613

Medium: 90% EtOH, 0.15 M NaClO4

****

C4H11O2PS2 H3L CAS 298-06-6 (210)
O,O'-Diethyldithiophosphoric acid; (C2H5O)2P(S)SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	mixed	RT	50%	C			1986HSd	(35221)1614
							B3=2.47		

Medium: 50% v/v DMF/H2O. Method: polarography.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	alc/w	?	90%	U		B2=4.5	1971TCa	(35222)1615

Medium: 90% EtOH, 0.15 M NaClO4

****

C4H11O4P H2L (5867)
n-Butyl phosphoric acid; C4H9.O.PO(OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	C		K1=2.30	1988MSa	(35281)1616

****

C4H11PS2 HL CAS 886-54-6 (3591)
Diethylphosphinodithioic acid; (CH3.CH2)2PSSH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	alc/w	?	90%	U		B2=6.4	1971TCa	(35292)1617

Medium: 90% EtOH, 0.15 M NaClO4

****

C4H12NO3P H2L AMPPH CAS 18108-24-2 (222)
1-Amino-2-methylpropylphosphonic acid; (CH3)2.CH.CH(NH2).PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	24°C	0.10M	U		K1=6.31		1989YKa	(35305)1618

****

C4H12N2 L CAS 563-86-0 (59)
DL-2,3-Diaminobutane; H2N.CH(CH3).CH(CH3).NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U	H	K1=5.944 B(ZnHL)=11.59 B3=14.76	B2=11.26	1977PSb	(35377)1619

By calorimetry, DH1=-18.0 kJ mol-1, DS1=53.4 J K-1 mol-1, DH(B2)=-29.9, DS(B2)=115.4

****

C4H12N2 L Dimeen CAS 110-70-3 (125)
N,N'-Dimethyl-1,2-diaminoethane; CH3.NH.CH2.CH2.NH.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C	HM	K1=4.47	B2=7.90	1979SGb	(35414)1620

****

C4H12N2 L Butanediamine CAS 20759-15-3 (58)
meso-2,3-Diaminobutane; H2N.CH(CH3).CH(CH3).NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U	H	K1=5.45 B(ZnHL)=11.6 B3=14.63	B2=10.77	1977PSb	(35487)1621

By calorimetry, DH1=-13.9 kJ mol-1, DS1=57.7 J K-1 mol-1, DH(B2)=-30.3, DS(B2)=105

****

C4H12N2O L CAS 2752-17-2 (312)
Bis-(2-aminoethyl)ether; H2N.CH2.CH2.O.CH2.CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U	H	K1=5.74 K(ZnL+OH)=5.11 K(ZnL+2OH)=8.37	B2=9.86	1974BVa	(35499)1622

By calorimetry: DH(K1)=-20.1 kJ mol-1, DS=41.4, DH(K2)=-30.1, DS=-16, DH(ZnLOH)=1.6, DS=105

****

C4H12N2O L CAS 111-41-1 (648)
N-(2-Hydroxyethyl)diaminoethane, 1,4-Diaza-7-oxaheptane; H2N.CH2.CH2.NH.CH2.CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo

```
Zn++       gl  NaNO3  25°C 0.10M U        K1=5.28   B2=10.07  1986TSa (35535)1623
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.50M U        K1=4.75   B2=10.15  1960HDa (35536)1624
********************************************************************************
C4H12N2S                L                       CAS 871-76-1  (1854)
1,5-Diamino-3-thiapentane; H2N.CH2.CH2.S.CH2.CH2.NH2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   30°C  1.0M U T      K1=5.31   B2=8.88   1951GOa (35560)1625
0 C: K1=5.78, K2=4.34; 50 C: K1=5.15, K2=3.44
********************************************************************************
C4H12O7P2            H3L                       CAS 52811-47-9  (7665)
N-Butyldiphosphoric acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M M        K1=4.40        1999SSa (35580)1626
********************************************************************************
C4H13NO6P2           H4L                       CAS 5995-26-6  (1336)
N-Ethyliminobis(methylenephosphonic) acid; C2H5N(CH2PO3H2)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C        K1=9.33        1999MKa (35599)1627
                                          B(ZnHL)=15.78
                                          B(ZnH2L)=20.04
                                          B(ZnH-1L)=-0.22
                                          B(ZnH-2L)=-11.72
*K(ZnL)=-9.55; K(ZnOH+L)=9.17; K(ZnOH+ZnL=Zn(OH)L+Zn)=-0.16.
********************************************************************************
C4H13N3                 L                       CAS 14478-63-8  (3000)
1,3-Diamino-2-aminomethylpropane; H2N.CH2.CH(CH2.NH2).CH2.NH2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   20°C 0.10M U                        1962ANb (35629)1628
                                          K(Zn+HL)=3.80
                                          K(Zn+H2L)=1.70
********************************************************************************
C4H13N3                 L    Dien               CAS 111-40-0  (584)
1,4,7-Triazaheptane, 2,2'Iminobis(ethylamine), diethylenetriamine;
NH2.(CH2)2.NH.(CH2)2.NH2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C        K1=8.94   B2=13.96  2002KKa (35718)1629
                                          B(ZnHL2)=22.26
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U   H    K1=8.92        1996IFb (35719)1630
```

```
                                        *K(ZnL)=-8.93
DH(K1)=-28.9 kJ mol-1, DS(K1)=73.9 J K-1 mol-1.
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.20M M    M   K1=8.81        1996VBa (35720)1631
                                        B(Zn(ala)L)=13.53
                                        B(Zn(phe)L)=13.01
                                        B(Zn(tyr)L)=12.88
                                        B(Zn(trp)L)=13.12
B(Zn(gly-gly)L)=11.88, B(Zn(gly-ala)L)=11.95, B(Zn(en)L)=13.85.
--------------------------------------------------------------------------------
Zn++       gl  oth/un 21°C  var  U    M   K2=4.30        1987HMa (35721)1632
                                        K(ZnL2+H=ZnHL2)=2.70
Ternary complexes with alanine, glycine, acetate, en, pn.
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U    M   K1=8.92   B2=14.91  1985MSa (35722)1633
                                        K(Zn(thiolactate)+L)=6.08
--------------------------------------------------------------------------------
Zn++       oth KNO3   25°C 0.10M U   H                   1977FZa (35723)1634
DH(K1)=-27.0 kJ mol-1; DS=77.3 J K-1 mol-1
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=9.1    B2=14.00  1973AHc (35724)1635
                                        K(Zn+HL)=4.1
--------------------------------------------------------------------------------
Zn++       cal KCl    25°C 0.10M U   H                   1961CPa (35725)1636
DG(K1)=-50.16 kJ mol-1, DH=-27.0, DS=77; DG(K2)=-31.35, DH=-42.5, DS2=-38
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C  0.0  U T H                   1959MBa (35726)1637
DG(K1)=-49.3 kJ mol-1, DH=-27, DS=75. DG(K1)=48.1(10 C), 50.2(40 C)
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C  ->0  U T      K1=8.78        1953MCa (35727)1638
30 C: K1=8.57, 40 C: K1=8.37
--------------------------------------------------------------------------------
Zn++       gl  oth/un 35°C  1.0M U   H                   1952JHa (35728)1639
DH(K1)=-33.4 kJ mol-1
--------------------------------------------------------------------------------
Zn++       gl  KCl    30°C  1.0M U T      K1=9.14        1952JHa (35729)1640
40 C: K1=8.95
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U        K1=8.9    B2=14.4   1950PSa (35730)1641
********************************************************************************
C4H14N2O4P2           H2L                      CAS 37107-07-6  (4287)
Ethylenebis(iminomethylenephosphonous acid)
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=6.16        1971MMh (35826)1642
********************************************************************************
C4H14N2O6P2           H2L    EDDPO            CAS 1733-49-9  (2435)
1,2-Diaminoethane-N,N'-bis(methylenephosphonic) acid; (H2O3P.CH2.NH.CH2)2
--------------------------------------------------------------------------------
```

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       EMF KCl    25°C 0.10M C        K1=9.12        2002MNa (35857)1643
                                          B(ZnHL)=18.67
                                          B(Zn2HL)=23.87
Also other constants
*************************************************************************
C5H2O2F6               HL    HFA              CAS 1522-22-1  (195)
1,1,1,5,5,5-Hexafluoropentane-2,4-dione; F3C.CO.CH2.CO.CF3
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       dis NaClO4 25°C  1.0M C    M   K1=1.0         1977SMe (35916)1644
                                          K(ZnL2(org)+A(org))=7.0
                                          K(ZnL2(org)+2A(org))=11.6
Method: distribution from 1.0 M NaClO4 into CCl4/HL/tri-octylposphine
oxide (A). K(Zn+2HL(org)=ZnL2(org)+2H)=-5.2.
-------------------------------------------------------------------------
Zn++       dis NaClO4 25°C 0.10M U  I     K1=1.6         1971SIa (35917)1645
K1(I=1)=1.0, K1(I=3)=1.1
*************************************************************************
C5H3N2O4Br             H2L    5-Bromoorotic    CAS 15018-62-9  (3629)
1,2,3,6-Tetrahydro-2,6-dioxo-5-bromo-4-pyrimidinecarboxylic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.10M U        K1=3.26        1964TTa (35958)1646
Medium: Me4NBr
*************************************************************************
C5H3N2O4I              H2L    5-Iodoorotic     CAS 17687-22-8  (3630)
1,2,3,6-Tetrahydro-2,6-dioxo-5-iodo-4-pyrimidinecarboxylic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.10M U        K1=3.77        1964TTa (35965)1647
Medium: Me4NBr
*************************************************************************
C5H3N3O6               H2L    5-Nitroorotic    CAS 17687-24-0  (3615)
1,2,3,6-Tetrahydro-2,6-dioxo-5-nitro-4-pyrimidinecarboxylic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       sp  KNO3   25°C 0.10M U        K1=2.58        1964TTa (35972)1648
-------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U        K1=2.51        1961TDa (35973)1649
By ion-exchange: K1=2.54
*************************************************************************
C5H3N4Cl                L    6-Chloropurine   CAS 87-42-3  (3032)
6-Chloropurine;
-------------------------------------------------------------------------
```

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KNO3   45°C 0.10M U        K1=6.5         1971TKc (35985)1650
*************************************************************************
C5H4NBr                 L                     CAS 1120-87-2  (8780)
4-Bromopyridine;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.50M C        K1=0.76        2002KSb (35998)1651
*************************************************************************
C5H4NCl                 L                     CAS 626-60-8  (322)
3-Chloropyridine; C5H4N.Cl
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.50M C        K1=0.57        2002KSb (36014)1652
*************************************************************************
C5H4N2O3S            H2L    Thioorotic acid    (4335)
1,2,3,6-Tetrahydro-2-thio-6-oxo-4-pyrimidinecarboxylic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  NaCl   20°C 0.15M U        K1=4.97        1979DZe (36071)1653
                                         K(Zn+HL)=2.53
*************************************************************************
C5H4N2O3S            H2L    2-Thioisoorotic  CAS 6953-78-2  (3631)
1,2,3,6-Tetrahydro-2-thio-6-oxo-5-pyrimidinecarboxylic acid, 2-thioisooratic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       ix  NaClO4 25°C 0.10M U        K1=3.94        1966DTa (36079)1654
*************************************************************************
C5H4N2O4             H2L    Orotic acid      CAS 65-86-1  (624)
1,2,3,6-Tetrahydro-2,6-dioxo-4-pyrimidinecarboxylic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  NaCl   37°C 0.15M C        K1=5.94   B2=10.57  2002HTc (36096)1655
                                         B(ZnH-1L2)=1.48
-------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.15M U    M                  1982VDa (36097)1656
                                         K(Zn+HL)=2.64
-------------------------------------------------------------------------
Zn++       gl  NaCl   20°C 0.15M U        K1=6.04        1979DZe (36098)1657
                                         K(Zn+HL)=2.64
-------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.50M U        K1=6.88        1979MDa (36099)1658
-------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.10M U        K1=6.42        1967TKc (36100)1659
```

Medium: Me4NBr
****
C5H4N2O4 H2L Isoorotic acid CAS 23945-44-0 (3616)
1,2,3,6-Tetrahydro-2,6-dioxo-5-pyrimidinecarboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	U		K(Zn+HL)=2.69	1961TDb	(36125)1660

By ion-exchange: K(Zn+HL)=2.65
****
C5H4N4 HL Purine CAS 120-73-0 (2149)
Purine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	nmr	non-aq	36°C	100%	U	M	K1=0.72	1966WLa	(36144)1661

Medium: DMSO. Ternary complexes with imidazole
****
C5H4N4O HL Hypoxanthine CAS 68-94-0 (1174)
6-Hydroxypurine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	37°C	0.15M	U		K1=4.37	1990CIa	(36175)1662
Zn++	gl	KNO3	25°C	0.10M	U	T H	K(Zn+HL)=3.02 K(Zn+2HL)=3.29	1983KSa	(36176)1663
Zn++	gl	NaClO4	25°C	0.10M	U	TIH	K1=5.20 B2=10.12	1979RPa	(36177)1664

Medium: KClO4. DH(K1)=-77.3 kJ mol-1, DS=-189 J K-1 mol-1; DH(K2)=-84.3,
DS(K2)=-189. Data for 35 and 45 C. At 35 C, I=0.0 M: K1=5.36, K2=4.88.

Zn++	gl	KNO3	45°C	0.10M	U		K1=7.10	1971TKc	(36178)1665
Zn++	gl	diox/w	25°C	50%	U		K1=6.03	1959CFb	(36179)1666

****
C5H4N4O2 HL Xanthine CAS 69-89-6 (4305)
Xanthine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	U		K1=2.05	1991KMa	(36203)1667

****
C5H4N4S HL 6-Purinethiol CAS 6112-76-1 (115)
6-Mercaptopurine, 6-Thiohypoxanthine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

```
Zn++       gl  KNO3   45°C 0.10M U        K1=6.6         1971TKc (36220)1668
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U        K1=5.90        1959CFb (36221)1669
********************************************************************************
C5H4O2S                HL    2-Thenoic acid   CAS 527-72-0  (2312)
Thiophene-2-carboxylic acid; C4H3S.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U T  M   K1=2.42        1988NSc (36243)1670
                                          B(ZnAL)=9.28
HA is pyridine-2-carboxylic acid. At 40 C, K1=2.32, B(ZnAL)=7.04.
--------------------------------------------------------------------------------
Zn++       cal NaNO3  25°C 1.00M U   H                   1979ARa (36244)1671
DH(ZnL)=0.50 kJ mol-1; DS=40.3.
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 30°C 0.20M U T H    K1=2.08        1976SKc (36245)1672
At 40 C:K1=2.10; 50 C:2.16
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U        K1=2.05        1968EGb (36246)1673
Medium: 50% dioxan, 0.1 M NaClO4
********************************************************************************
C5H4O3                 HL    Pyromeconic aci  CAS 496-63-9  (3600)
3-Hydroxy-4H-pyran-4-one;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.50M U        K1=5.03   B2=9.18   1967CBb (36271)1674
********************************************************************************
C5H5N                   L    Pyridine         CAS 110-86-1  (31)
Pyridine, Azine;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.50M C        K1=1.15        2002KSb (36457)1675
--------------------------------------------------------------------------------
Zn++       sp  NaCl   23°C 0.10M U    M                   1997DDa (36458)1676
                                          K(ZnP+L)=3.58
P:2,3,7,8,12,13,17,18-octabromo-5,10,15,20-tetrakis(N-methyl-4-pyridinio)por
phyrin. Data for other porphyrins and L=imidazole, 4-CN-, 3-Cl- and 3-F-pyr.
--------------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U                      1994IUa (36459)1677
                                          K(ZnP+L)=4.95
Medium: CHCl3.  ZnP is a zinc porphyrin host.
--------------------------------------------------------------------------------
Zn++       cal non-aq 25°C 100%  U   H    K1=3.9    B2=7.0    1994KOa (36460)1678
                                          B3=9.3
                                          B4=10.6
Medium: CH3CN.  DH(K1)=-32.3, DH(B2)=-61, DH(B3)=-76, DH(B4)=-97 kJ mol-1.
--------------------------------------------------------------------------------
```

```
Zn++       cal non-aq 25°C 100%  U   H    K1=1.06   B2=0.79   1993KOa (36461)1679
Medium: dimethylformamide, 0.1 M Et4NClO4. DH(K1)=-18.1, DH(B2)=-41.8 kJ m-1
-------------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U    M                  1993SSc (36462)1680
                                       K(ZnA+L)=3.366
                                       K(ZnB+L)=3.748
                                       K(ZnC+L)=4.125
Medium:Toluene. H2A:Octaethylporphyrin. H2B: t-Octaethylchlorin.
H2C: ttt-Octaethylisobacteriochlorin.
-------------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U    M                  1992INb (36463)1681
                                       K(ZnA+L)=3.46
                                       K(ZnB+L)=4.38
                                       K(ZnC+L)=3.52
Medium:toluene. A:bis-roof porphyrin. B:picket fence porphyrin.
C:meso-tetrakis(p-methylphenyl)porphyrin. Data for many other basic ligands
-------------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U   HM                  1992UNa (36464)1682
                                       K(ZnA+L=ZnAL)=4.15
                                       K(Zn2B+L=Zn2BL)=1.30
                                       K(ZnC+L=ZnCL)=4.58
Medium: CHCl3. A,C=substituted porphyrins, B=substituted porphyrin dimer.
-------------------------------------------------------------------------------
Zn++       sp  non-aq   ?  100%  U    M                  1990AHb (36465)1683
                                       K(ZnA+L)=3.11
Medium: CH2Cl2. A=biphenyl capped mesoporphyrin.   Data for other porphyrin
Zn complexes
-------------------------------------------------------------------------------
Zn++       sp  non-aq   ?  100%  U    M                  1990HMa (36466)1684
                                       K(Zn2A+L=LZn(A)Zn)=2.02
                                       K(LZn(A)Zn+L=LZn(A)ZnL)=2.31
Medium: CH2Cl2. A=cyclic porphyrin dimer
-------------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U  IH                  1990IKa (36467)1685
                                       K(ZnP+L)=4.38
In toluene.  P=pivalamido picket fence porphyrin.  DH=-44.4 kJ mol-1; DS=-
64.4 J K-1 mol-1.  Also data for other solvents and picket substituents.
-------------------------------------------------------------------------------
Zn++       vlt oth/un 25°C 0.10M U        K1=0.83   B2=1.52   1984GLa (36468)1686
Recalculation of literature data
-------------------------------------------------------------------------------
Zn++       dis non-aq 25°C 100%  U                     1983SSa (36469)1687
                                       K((NBu4)2ZnCl4+L)=0.07
                                       K((NBu4)2ZnCl3L+L)=-1.70
In 1,2-dichloroethane. Also data for L=4Me-py, 3Me-py, 2Me-py, 2Et-py,
4MeO-py and 4CN-py.
-------------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U TIH                 1982CFa (36470)1688
                                       K(ZnA+L)=4.22
Medium: BuCl. A=tetraphenylporphyrin. Also in PhCl and PhCH3
```

```
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C        K1=1.00        1981BKb (36471)1689
-------------------------------------------------------------------------------
Zn++       nmr non-aq 25°C 100%  U  IHM                  1980WBa (36472)1690
                                        K(ZnA+L)=4.40
Medium: cyclohexane. DH=-42.0 kJ mol-1. A=5,10,15,20-tetraphenylporphyrin.
In benzene, K(ZnA+L)=3.68
-------------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U  I M                 1978NVa (36473)1691
                                        K(ZnA+L)=3.84
Medium: CH2Cl2. A=Tetraphenylporphyrin. In benzene, K(ZnA+L)=3.68
-------------------------------------------------------------------------------
Zn++       cal non-aq 30°C 100%  U   H                  1976AGc (36474)1692
                                        K(ZnA2+L)=1.79
                                        K(ZnB2+L)=1.63
                                        K(ZnC2+L)=2.19
In benzene. A=diethyldithiocarbamate; DH=-33.7 kJ mol-1, DS=-77. B=dibutyldi
thiocarbamate; DH=-42.3; DS=-76. C=dibenzyldithiocarbamate; DH=-31.4; DS=-62
-------------------------------------------------------------------------------
Zn++       cal non-aq 30°C 100%  U   H                  1974DGa (36475)1693
                                        K(ZnA2+2L)=4.00
                                        B(ZnB2+2L)=4.26
In benzene. HA=thioacetyl-1,1,1-trifluoroacetone; DH=-45 kJ mol-1; DS=-73
HB=thiobenzoyl-1,1,1-trifluoroacetone; DH=-48 kJ mol-1; DS=-78.
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=1.10        1974ILa (36476)1694
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=0.98   B2=1.45   1973BJa (36477)1695
                                        K3=0.15
                                        K4=-0.2
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.50M U  I     K1=0.99   B2=1.27   1970FRa (36478)1696
Medium: LiClO4.  In 54.3% MeOH, 0.5 M LiClO4: K1=1.14
0.5 LiClO4, 48.1% dioxan: K1=1.06, K2=0.76
-------------------------------------------------------------------------------
Zn++       EMF oth/un 25°C 0.50M U        K1=1.08   B2=1.48   1969NSb (36479)1697
                                        K3=0.02
                                        K4=-0.23
Medium: 0.5 LiNO3
-------------------------------------------------------------------------------
Zn++       gl  R4N.X  20°C  1.0M U    M   K1=1.45   B2=2.01   1967FLc (36480)1698
                                        B(Zn(NH3)L)=4.07
                                        B(Zn(NH3)2L)=6.05
                                        B(Zn(NH3)L2)=4.07
                                        B(Zn(NH3)3L)=7.69
Also by distribution. Medium: NH4NO3. B3=1.8, B4=2.12, B(Zn(NH3)2L2)=6.27,
B(Zn(NH3)L3)=4.14, Ternary complexes with oxine and substituted oxines
-------------------------------------------------------------------------------
Zn++       vlt mixed  30°C  20%  U  I     K1=0.57   B2=1.22   1967GSa (36481)1699
Medium: 0-40% v/v DMF, 0.1 M KNO3
```

K1(0%)=0.90, K1(40%)=0.81, B2(0%)=1.53, B2(40%)=0.85

Zn++ ISE NaClO4 30°C 0.10M U K1=1.10 B2=1.71 1966DKa (36482)1700
B3=1.92

Zn++ vlt KNO3 30°C 0.10M U K1=0.90 B2=1.53 1965SGa (36483)1701

Zn++ gl NaClO4 25°C 0.10M U K1=1.07 1964KSb (36484)1702

Zn++ gl NaClO4 25°C 1.0M U H K1=2.08 B2=3.77 1963ABa (36485)1703
K3=1.03
K4=0.64
By calorimetry: DHi(average)=-10.9 kJ mol-1, DS(K1)=4 J K-1 mol-1, DS(K2)=-4
DS(K3)=-16, DS(K4)=-25

Zn++ vlt KCl 25°C 0.10M U K1=1.41 B2=1.11 1953NYa (36486)1704
K3=0.50
K4=0.32

Zn++ gl oth/un 25°C 0.50M U K1=0.95 B2=1.45 1950BJa (36487)1705
Medium: 0.5 M C5H5N.HNO3

Zn++ ISE oth/un 18°C 0.40M U B2=1.1 1904EUb (36488)1706

****

C5H5NO L 3-Pyridinol CAS 109-00-2 (1475)
3-Hydroxypyridine; C5H4N.OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl KNO3 25°C 0.50M U K1=0.70 B2=1.65 1978LRa (36703)1707
B3=1.84

****

C5H5NOS L CAS 1121-31-9 (3052)
3-Mercaptopyridine 1-oxide; C5H4N(-O)(SH)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl oth/un 20°C 0.01M U K1=5.9 B2=11.3 1956ARb (36729)1708

****

C5H5NO2 HL CAS 13161-30-3 (5582)
1-Hydroxypyridin-2(1H)-one, 2-Hydroxypyridine 1-oxide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl KCl 25°C 0.20M C K1=4.87 B2= 9.04 2000FEc (36744)1709
B3=11.80

Zn++ gl KCl 25°C 0.10M U K1=5.09 B2=9.25 1993LMc (36745)1710
K3=2.78

```
Zn++       gl  oth/un 20°C 0.01M U        K1=5.5    B2=9.8    1956ARb (36746)1711
**************************************************************************
C5H5NO2                HL                      CAS 16867-04-2  (2316)
2,3-Dihydroxypyridine, 3-Hydroxypyridin-2(1H)-one; C5H3N(OH)2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   37°C 0.15M C    M   K1=5.57   B2=10.12  1980SHb (36771)1712
                                          K3=2.18
                                          K(ZnH-1L2+H)=10.3
--------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U        K1=7.40   B2=13.39  1970GDa (36772)1713
Medium: 50% dioxan, 0.1 M NaClO4
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=5.82   B2=11.48  1970GDa (36773)1714
**************************************************************************
C5H5NO2                                        CAS 1121-47-7  (6252)
2-Furancarboxaldehyde oxime, 2-Furfuraldoxime; C4H3O.CH:NOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  diox/w 20°C  60%  U  I     K1=6.90   B2=12.96  1979GBd (36802)1715
                                          B(ZnHL2)=23.26
**************************************************************************
C5H5NO2                HL                      CAS 35940-93-3  (3618)
3-Furancarboxaldehyde oxime  (3-Furfuraldoxime); C4H3O.CH(:N.OH)
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  diox/w 15°C  75%  U T      K1=6.79   B2=13.17  1963ASa (36810)1716
Medium: 75% dioxan, 0.104 M NaClO4. K1=6.71(25 C),6.74?(35 C); K2=6.02(25 C)
**************************************************************************
C5H5NO2                HL                      CAS 1121-23-9  (2315)
3-Hydroxypyridin-4(1H)-one;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   37°C 0.15M C        K1=6.81   B2=12.54  1980SHb (36823)1717
                                          K3=2.1
                                          K(ZnH-1L2+H)=10.7
**************************************************************************
C5H5N2Br                L                      CAS 1072-97-5  (2630)
5-Bromo-2-aminopyridine; C5H3N(Br)(NH2)
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.50M C        K1=0.07        2002KSb (36853)1718
**************************************************************************
C5H5N3O4             H2L    5-Aminoorotic    CAS 7164-43-4  (3619)
1,2,3,6-Tetrahydro-2,6-dioxo-5-amino-4-pyrimidinecarboxylic acid;
```

```
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.10M U        K1=5.38        1967TKc (36863)1719
Medium: Me4NBr
*******************************************************************************
C5H5N3O4              H2L                    CAS 59048-06-5  (6096)
N-Methylvioluric acid;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.50M C        K1=2.00        1978VNa (36874)1720
*******************************************************************************
C5H5N5                   L    Adenine          CAS 73-24-5  (237)
6-Aminopurine; H2N.C5H3N4
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C    M   K1=8.01        2000SSd (36942)1721
                                          K(Zn+HL)=4.02
                                          K(Zn+HL+OH)=12.02
                                          K(ZnHL+OH)=8.06
                                          K(Zn+L+OH)=13.37
Also data for ternary complexes.
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M U        K1=5.77        1996SGa (36943)1722
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M M                       1995LWa (36944)1723
                                          K(Zn+HL)=1.24
                                          K(Zn(atp)+HL)=1.67
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  37°C 0.10M U    M   K1=8.28        1994MGd (36945)1724
                                          B(ZnAL)=10.55
                                          *K(ZnAL)=-8.05
                                          *K(Zn(OH)AL)=-9.32
HA is 6-aminopenicillanic acid.
-------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M U    M   K1=2.17        1989SRe (36946)1725
                                          B(ZnHLAsp)=8.02
                                          B(ZnLAsp)=6.49
                                          K(ZnL+Gly)=5.19
-------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M U T H                   1983KSa (36947)1726
                                          K(Zn+HL)=2.17
                                          K(Zn+2HL)=3.13
-------------------------------------------------------------------------------
Zn++       gl  NaCl   37°C 0.15M C                       1974MWa (36948)1727
                                          K(Zn+HL)=1.62
-------------------------------------------------------------------------------
Zn++       gl  KNO3   45°C 0.10M U        K1=8.16        1971TKc (36949)1728
```

```
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U        K1=6.42        1959CFb (36950)1729
********************************************************************************
C5H5N5O                HL    Guanine          CAS 73-40-5  (5387)
2-Amino-6-hydroxypurine;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  37°C 0.10M U    M   K1=8.54        1994MGd (36995)1730
                                         B(ZnAL)=10.82
                                         *K(ZnAL)=-8.01
                                         *K(Zn(OH)AL)=-9.26
HA is 6-aminopenicillanic acid.
********************************************************************************
C5H5N5O                 L                    CAS 700-02-7  (3033)
Adenine N-Oxide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C    ?  U        K1=3.47        1960PEb (37001)1731
********************************************************************************
C5H5N5S               H3L    6-Thioguanine    CAS 3647-48-1  (4307)
2-Amino-6-mercaptopurine;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   45°C 0.10M U                        1973TKa (37008)1732
                                       K(Zn+H2L)=3.2
********************************************************************************
C5H5N5S               H3L                  CAS 154-42-7  (4308)
2-Mercapto-6-aminopurine;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   45°C 0.10M U                        1973TKa (37016)1733
                                       K(Zn+H2L)=3.4
********************************************************************************
C5H5O2F3               HL                   CAS 367-57-7  (163)
1,1,1-Trifluoropentane-2,4-dione; CF3.CO.CH2.CO.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.50M C        K1=2.72        1993HTa (37042)1734
--------------------------------------------------------------------------------
Zn++       dis NaClO4 25°C  1.0M C    M   K1=2.72   B2= 4.48  1977SMe (37043)1735
                                       K(ZnL2(org)+A(org))=6.70
Method: distribution from 1.0 M NaClO4 into CCl4/HL/tri-octylposphine
oxide (A). K(Zn+2HL(org)=ZnL2(org)+2H)=-8.76.
--------------------------------------------------------------------------------
Zn++       dis NaClO4 25°C 0.10M U  I     K1=3.18   B2=5.28   1971SIa (37044)1736
```

B3=6.14
I=1: K1=2.72, B2=4.48, B3=5.42. I=3: K1=3.24, B2=5.52, B3=5.68
****
C5H6N2 L CAS 1072-63-5 (8709)
1-Vinylimidazole;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.50M U K1=2.08 B2= 3.68 1989LKc (37084)1737
B3=4.78
B4=7.08
****
C5H6N2 L 2-Aminopyridine CAS 504-29-0 (1478)
2-Aminoazine, 2-Pyridylamine; C5H4N.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaNO3 25°C 0.50M C K1=0.05 2002KSb (37110)1738

Zn++ gl KNO3 25°C 0.10M U TIH K1=2.72 B2=4.64 1976BBe (37111)1739
****
C5H6N2 L 3-Aminopyridine CAS 462-08-8 (1477)
3-Aminoazine, 3-Pyridylamine; C5H4N.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.50M U K1=1.23 B2=2.07 1978LRa (37151)1740
B3=2.51

Zn++ ISE NaClO4 30°C 0.10M U K1=1.34 B2=2.16 1966DKa (37152)1741
B3=2.78
****
C5H6N2O L CAS 16867-03-1 (2903)
2-Amino-3-hydroxypyridine; C5H3N(OH)(NH2)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 20°C 0.10M U TIH K1=3.90 B2= 7.38 1982KMe (37186)1742
Data for 0.05-0.20 M KNO3. At I=0, K1=4.36, K2=3.95.
Data for 30 and 40 C. DH(B2)=-40.4 kJ mol-1, DS(B2)=3.6 J K-1 mol-1.
****
C5H6N2O HL (3035)
2-Aminopyridine 1-oxide; C5H4N(-O)(NH2)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M U K1=<8.71 1963SBd (37199)1743
At I=0.5 M K(Zn+HL)=0.17
****
C5H6N2O2 HL Thymine CAS 65-71-4 (413)

2,4-Dihydroxy-5-methylpyrimidine; C4HN2(CH3)(OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	R4N.X	25°C	0.10M	C		K(ZnA+L)=4.1 K(ZnAL+OH)=4.7 K(Zn2A+L)=5.3 K(Zn2AL+L)=5.0	2001BBb (37258)	1744

Medium: 0.10 M NMe4NO3. K(Zn2AL2+2OH)=7.7.
A is 1,4,7,16,19,22-hexaza-10,13,25,28-tetraoxacyclotriacontane.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	37°C	0.10M	U	M	K1=3.79 B(ZnAL)=4.94	1994MGd (37259)	1745

HA is 6-aminopenicillanic acid.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	35°C	0.10M	U	M	K1=5.23 K(Zn(thiamine)+L)=4.97	1989SRc (37260)	1746

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U	T H	K1=5.32	1983KSa (37261)	1747

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C	T H	K1=5.32 B2= 5.25	1983KSd (37262)	1748

Also data for 15-45 C. DH(K1)=-22.1 kJ mol-1, DH(B2)=20.1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	35°C	0.10M	U		K1=5.23 B2=10.42	1982TSa (37263)	1749

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	45°C	0.10M	U		K1=4.0	1974KKa (37264)	1750

****

C5H6N2O2 HL CAS 3326-71-4 (2607)
2-Furanecarboxylic acid hydrazide; C4H3O.CONH.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	none	25°C	0.0	C	I	K1=2.186 B2= 4.01	1996RRb (37299)	1751

Data for 10-60% v/v DMF/H2O and 10-50% dioxane/H2O. In 50% DMF/H20,
K1=3.447, B2=5.377. In 50% dioxane/H2O, K1=1.756.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U	M	K1=3.79 B2=7.36 K(Zn(Oxine)+L)=3.89	1990NAa (37300)	1752

****

C5H6N2O2 HL CAS 645-65-8 (3620)
4(or 5)-Imidazolylethanoic acid; C3H3N2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	C		K1=3.81 B2= 7.15 B3=9.48	1998TSa (37315)	1753

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	0°C	0.25M	U	T H	K1=3.86 B2=7.29 K3=2.80	1965AZa (37316)	1754

K1=3.83(15 C),3.86(25 C),3.59(40 C); K2=3.32,3.24,3.33; K3=2.63(15 C), 2.70 (25 C).At 15 C: DH(K1)=-9.6 kJ mol-1, DH(K2)=0.0, DH(K3)=-14.2

****

C5H6N2O2S HL CAS 15112-09-1 (8298)
N-Methyl-2-thiobarbituric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	31°C	0.10M	U	T H	K1=6.85	B2=12.09	1984SJa (37323)	1755

Also data for 18 and 42 C. DH(K1)=-90.7 kJ mol-1, DS(K1)=-168 J K-1 mol-1 DH(K2)=-53.4, DS(K2)=-75.8.

****

C5H6N6 HL Diaminopurine CAS 1904-98-9 (4290)
2,6-Diaminopurine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	45°C	0.10M	U		K1=7.8	1973TKa (37334)	1756

****

C5H6OS HL CAS 98-02-2 (4309)
Furfurylmercaptan; C4H3O.CH2.SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	U	T	K1=6.77	B2=13.24	1973SSf (37343)	1757

Medium: 50% EtOH, 0.1 M NaClO4

****

C5H6O4 H2L Citraconic acid CAS 498-23-7 (3021)
Citraconic acid; CH3.C(COOH):CH.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	vlt	KCl	25°C	0.10M	C	M	K1=2.65	B2= 3.90	1987SPb (37352)	1758
							B3=5.64			
							B(CdAL)=3.93			
							B(CdA2L)=3.95			
							B(CdAL2)=5.00			

Method: polarography. A is gamma-picoline.

Zn++	gl	oth/un	25°C	0.10M	U		K1=1.8	1960YYa (37353)	1759

****

C5H6O4 H2L CAS 598-10-7 (70)
Cyclopropane-1,1-dicarboxylic acid; C3H4(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	U		K1=3.50	1972RVh (37384)	1760

****

C5H6O4 H2L Itaconic acid CAS 97-65-4 (398)
Methylenesuccinic acid; HOOC.CH2.C(:CH2).COOH

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.10M U        K1=1.9         1960YYa (37405)1761
********************************************************************************
C5H6O5               H2L    Ketoglutaric     CAS 328-50-7  (1146)
2-Ketoglutaric acid; HOOC.CH2.CH2.CO.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.50M U        K1=1.13   B2=1.7    1970SFb (37470)1762
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.50M U    M                   1970SFb (37471)1763
                                       B(ZnL(Ala))=5.97
                                       B(ZnL2(Ala))=10.00
                                       B(ZnLA)=5.64
H2A=glutamic acid
********************************************************************************
C5H6O5               H2L                     CAS 642-93-3  (5476)
3-Methyl-2-oxobutanedioic acid  HOOC.CO.CH(CH3).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C        K1=3.13        1982KMc (37478)1764
                                       K(Zn+H-1L)=7.4
********************************************************************************
C5H6O7               H3L                       (8107)
Carboxymethyltartronic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C        K1=4.87        1984MMg (37484)1765
                                       K(ZnL+H)=2.42
********************************************************************************
C5H7NO2               HL    Glutarimide      CAS 1121-89-7  (4312)
Piperidine-2,6-dione;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  alc/w  45°C  50%  C        K1=7.07        1996MMc (37506)1766
Medium: 50% v/v MeOH/H2O, 0.10 M KNO3.
********************************************************************************
C5H7NO4S2            H3L                     CAS 36061-59-3  (1953)
Bis(carboxymethyl)dithiocarbamic acid; (HOOC.CH2)2.N.CSSH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       dis KNO3   20°C 0.10M U        B2=<4.5        1967HMc (37552)1767
********************************************************************************
C5H7NS                L                    CAS 541-58-2  (1421)
```

2,4-Dimethylthiazole; C3HNS(CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=-1.30 B2=-0.65	1982GKa (37567)	1768

****

C5H7N3 L CAS 42166-50-7 (4291)

2-Pyridylhydrazine; C5H4N.NH.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	EMF	NaNO3	20°C	0.10M	U		K1=5.40 B2=9.95 K3=3.35	1971ANa (37580)	1769

****

C5H7N3O2 L (6254)

1-Carbamido-3-methyl-pyrazol-5-one; CH3.C3H2N2(:O).CO.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U		K1=6.88 B2=12.40	1979PDa (37595)	1770

****

C5H8N2 L CAS 1759-84-0 (173)

1,2-Dimethylimidazole; C3H2N2(CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=2.48	1981LKa (37612)	1771
Zn++	gl	KNO3	25°C	0.50M	U		K1=1.92 B2=4.32 B3=7.11 B4=9.00 B5=9.62	1980LBa (37613)	1772

****

C5H8N2 L CAS 7098-07-9 (2053)

1-Ethylimidazole; C3H3N2.C2H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=2.50 B2=4.79 B3=7.40 B4=9.30 B5=10.10	1979LBa (37637)	1773

****

C5H8N2 L CAS 1072-62-4 (929)

2-Ethylimidazole; C3H3N2.C2H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	30°C	0.20M	U		K1=2.82	1999PGa (37656)	1774

```
Zn++       gl  NaNO3  30°C 0.20M U        K1=2.80        1999PPa (37657)1775
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=1.80   B2=4.48   1982LKb (37658)1776
                                          B3=6.30
                                          B4=8.60
**************************************************************************
C5H8N2                   L    Di-Me-Pyrazole   CAS 67-51-6  (369)
3,5-Dimethyl-1,2-diazole; C3H2N2(CH3)2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=-0.15  B2=0.65   1977LGb (37672)1777
                                          B3=2.15
**************************************************************************
C5H8N2O                  L                        (1429)
5-Amino-3,4-dimethylisoxazole; C3NO(CH3)2(NH2)
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       ISE KNO3   25°C 0.50M U        K1=0.78        1983GWa (37683)1778
Constant determined by means of the competitive potentiometric method using
Ag(I) as the auxilliary cation, silver electrode applied.
**************************************************************************
C5H8N2O2S              HL    cyclo-(Gly-Cys)  CAS 24814-12-8  (7983)
cyclo-(Glycyl-cysteinyl);
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M M        K1=4.71   B2=10.46  2001GVa (37692)1779
**************************************************************************
C5H8N2O3               HL                       (6597)
2,3-Dehydro-N-glycyl-alanine; NH2.CH2.CO.NH.C(COOH):CH2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C        K1=2.80        1994JBa (37696)1780
                                          B(ZnH-1L)=-3.93
                                          B(ZnH-1L2)=-3.00
                                          B(ZnH-2L2)=-10.52
**************************************************************************
C5H8N2O5             H2L    beta-ODPA        CAS 5302-45-4  (6480)
b-N-Oxalyl-L-alfa,beta-diaminopropoinic acid, N-oxalylamino-alanine;
H2N.CH(COOH).CH2.NH.CO.COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=4.74   B2=8.66   1990DNa (37719)1781
                                          B(ZnH-2L2)=-9.82
**************************************************************************
C5H8OS                 HL                       (4314)
```

1-Mercapto-1,3-dimethylprop-1-en-3-one; HS.C(CH3):CH.CO.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	dis	oth/un	25°C	0.10M	C		B2=10.81	1979LJa (37734)	1782

Method: 65Zn extraction from 0.10 M buffer into CHCl3.

Zn++	gl	diox/w	30°C	75%	U		K1=9.33 B2=18.62	1969UTa (37735)	1783

****

C5H8O2 HL Acetylacetone CAS 123-54-6 (164)

Pentane-2,4-dione; CH3.CO.CH2.CO.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.50M	C		K1=4.68	1993HTa (37856)	1784
Zn++	oth	NaClO4	25°C	0.10M	C	I R	K1=4.70 B2=8.3	1982SLc (37857)	1785

IUPAC evaluation. I=0 corr.: K1=5.03, B2=8.8. I=1 M: K1=4.6

Zn++	vlt	NaNO3	25°C	0.10M	C		K1=5 B2=10.00 B3=14.30	1980KJc (37858)	1786

Method: polarography. Medium pH 6.0

Zn++	gl	diox/w	24°C	50%	U		K1=6.1	1979ACa (37859)	1787
Zn++	cal	oth/un	25°C	0.05M	U		K1=4.68 B2= 8.03 DH(K1)=-7.40 kJ/mol DH(B2)=-20.2	1979PKc (37860)	1788
Zn++	gl	diox/w	30°C	75%	U		K1=9.69	1977AHb (37861)	1789
Zn++	dis	NaClO4	25°C	1.0M	C	M	K1=4.58 B2= 7.76 K(ZnL2(org)+A(org))=3.07 K(ZnL2(org)+2A(org))=4.66	1977SMe (37862)	1790

Method: distribution from 1.0 M NaClO4 into CCl4/HL/tri-octylposphine oxide (A). K(Zn+2HL(org)=ZnL2(org)+2H)=-11.40.

Zn++	dis	non-aq	20°C	100%	C		K3=1.50 K(ZnL2+piperidine)=3.80	1976SSh (37863)	1791

Medium: benzene, 0.10 M NaClO4.

Zn++	cal	non-aq	30°C	100%	U	M	K(ZnL2+py)=2.53	1973DGb (37864)	1792

Medium: benzene

Zn++	dis	NaClO4	25°C	0.10M	U	I	K1=4.85 B2=8.22 B3=9.43	1971SIa (37865)	1793

K1(I=1)=4.58, K1(I=3)=4.93, B2(I=1)=7.76, B2(I=3)=8.46, B3(I=1)=9.16, B3(I=3)=10.26

```
--------------------------------------------------------------------------------
Zn++       dis NaClO4 20°C 0.10M U    M                  1970VAa (37866)1794
                                        K(ZnL2+py)=1.34
                                        K(ZnL2+2py)=2.20
                                        K(ZnL2+B)=2.17
                                        K(ZnL2+2B)=3.20
B=2-methylpyridine. K(ZnL2+C)=1.59, K(ZnL2+2C)=2.70  C=4-methylpyridine
Data for ternary complexes with aniline, 2- and 3-methylaniline also
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U   H    K1=4.68   B2=7.92   1968GFa (37867)1795
By calorimetry:DH(K1)=-6.3 kJ mol-1,DS=66.9 J K-1 mol-1; DH(B2)=-14.2,DS=100
--------------------------------------------------------------------------------
Zn++       gl  alc/w  25°C  50%  U   H    K1=5.36   B2=9.85   1967MKa (37868)1796
Medium: 50% MeOH.  By calorimetry:DH(K1)=-5.4 kJ mol-1,DS=83.6 J K-1 mol-1;
DH(K2)=-5.9, DS=66.9
--------------------------------------------------------------------------------
Zn++       gl  alc/w  30°C 100%  U        K1=5.6    B2=10.40  1960DRa (37869)1797
Medium: EtOH, 0.025 M NaClO4
--------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  75%  U        K1=9.52   B2=17.57  1959MFa (37870)1798
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C  0.0  U T H    K1=5.07   B2=9.02   1955IFc (37871)1799
DH(K1)=-7.9 kJ mol-1, DS=71. 10 C: K1=5.14, K2=4.02; 30 C: K1=4.98, K2=3.83;
40 C: K1=5.00, K2=3.88
--------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  75%  U        K1=9.11   B2=17.20  1953UFb (37872)1800
********************************************************************************
C5H8O2S                HL                      CAS 19418-11-2  (408)
Tetrahydrothiophene-2-carboxylic acid; C4H7S.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U        K1=2.35        1969SGa (38157)1801
Medium: 50% dioxan, 0.1 M NaClO4
********************************************************************************
C5H8O3                 HL    Laevulinic acid  CAS 123-76-2  (941)
4-Ketopentanoic acid; CH3.CO.CH2.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U        K1=1.13        1983LTa (38167)1802
********************************************************************************
C5H8O3                 HL                      CAS 16874-33-2  (2493)
Tetrahydrofuran-2-carboxylic acid; C4H7O.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U    M   K1=3.07        1968GPd (38179)1803
                                        K(Zn(bpy)+L)=2.79
Medium: 50% dioxan, 0.1 M NaClO4
```

```
**************************************************************************
C5H8O4                H2L                      CAS 595-46-0  (1144)
Dimethylmalonic acid; HOOC.C(CH3)2.COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C   H    K1=2.20   B2=4.00   1989ABa (38200)1804
                                          B(Zn(bpy)L)=7.30
DH(K1)=18.7 kJ mol-1, DS(K1)=104.6 J K-1 mol-1
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=2.20        1970OVa (38201)1805
--------------------------------------------------------------------------
Zn++       con oth/un 25°C .001M U        K1=2.74        1931IRb (38202)1806
**************************************************************************
C5H8O4                H2L                      CAS 601-75-2  (479)
Ethylpropanedioic acid; HOOC.CH(C2H5).COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=2.53        1968OVa (38228)1807
--------------------------------------------------------------------------
Zn++       con oth/un 25°C .001M U        K1=3.04        1931IRa (38229)1808
**************************************************************************
C5H8O4                H2L    Glutaric acid    CAS 110-94-1  (420)
Pentanedioic acid; HOOC.CH2.CH2.CH2.COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaClO4 30°C 0.10M U        K1=1.60        1981MSa (38296)1809
--------------------------------------------------------------------------
Zn++       dis NaClO4 25°C 1.00M U        K1=1.25   B2=1.74   1974MSc (38297)1810
--------------------------------------------------------------------------
Zn++       dis oth/un 25°C  0.0  U        K1=2.85        1966RMb (38298)1811
--------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.10M U        K1=1.6         1960YYa (38299)1812
--------------------------------------------------------------------------
Zn++       EMF KCl    25°C 0.20M U        K1=1.60        1938CKa (38300)1813
                                          K(Zn+HL)=0.84
**************************************************************************
C5H8O4S               H2L                      CAS 36303-63-6  (988)
3-Thiahexane-1,6-dioic acid; HOOC.CH2.S.CH2.CH2.COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=1.70        1975LPa (38378)1814
**************************************************************************
C5H8O4S2              H2L                      CAS 2068-24-8  (908)
2,2'-(Methylenebis(thio))bis-ethanoic acid; HOOC.CH2.S.CH2.S.CH2.COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
```

```
-------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C    ?  U T      K1=2.88   B2=5.60   1984SPa (38391)1815
Temperatures: 30,40 C  DH(B2)=-86.5 kJ mol-1, DS=-169.0 J K-1 mol-1
*******************************************************************************
C5H8O4S2             H3L                     CAS 73618-85-6  (7720)
meso-2,3-Dimercaptobutanedioc acid monomethyl ester;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C                       2002CDc (38400)1816
                                      B(Zn4HL4)=62.7
                                      B(Zn4L4)=57.4
                                      B(Zn4H-1L4)=48.2
                                      B(Zn2H2L4)=53.6
B(Zn2HL4)=46.0, B(Zn2L4)=35.4.
*******************************************************************************
C5H9NO2              H2L                     CAS 69651-97-4  (1164)
2-Amino-(2-allyl)ethanoic acid; H2N.CH(CH2.CH:CH2)COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=4.502  B2=8.51   1975IPb (38464)1817
*******************************************************************************
C5H9NO2               HL    Proline         CAS 147-85-3  (44)
Pyrrolidine-2-carboxylic acid; C4H8N.COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M C    M   K1=5.24   B2= 9.98  1998ZWa (38578)1818
Data for ternary complexes with 3,3,9,9-tetramethyl-4,8-diazaundecane-
2,10-dione dioxime
-------------------------------------------------------------------------------
Zn++       vlt NaClO4 25°C  1.0M C    M   K1=5.15   B2= 9.72  1997KKb (38579)1819
                                         B3=12.40
                                         B(ZnAL)=5.53
                                         B(ZnA2L)=10.00
                                         B(ZnAL2)=12.65
Method: polarography. HA is pyridoxine (vitamin B6). Medium pH 8.50.
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=5.27        1985MKa (38580)1820
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M C        K1=5.82   B2=10.2   1976MTa (38581)1821
                                         B(ZnHL)=12.52
                                         B(ZnH-1L)=-1.97
                                         B(ZnH-2L)=-10.9
-------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U        K1=5.36        1970GVa (38582)1822
-------------------------------------------------------------------------------
Zn++       gl  KNO3   37°C 0.15M U        K1=5.13   B2=9.69   1969CPc (38583)1823
                                         B3=11.26
```

```
                                        K(ZnL+H2O=Zn(OH)L+H)=-8.35
                                        K(ZnL2+H20=Zn(OH)L2+H)=-9.73
--------------------------------------------------------------------------------
Zn++       gl  oth/un 17°C 0.01M U        B2=9.9         1952PEa (38584)1824
Medium: ZnSO4
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C 0.03M U        B2=10.2        1950ALa (38585)1825
********************************************************************************
C5H9NO3                HL    Hydroxyproline   CAS 51-35-4  (416)
4-Hydroxy-2-pyrrolidinecarboxylic acid; C4H7N(OH)(COOH)
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       vlt NaClO4 25°C  1.0M C    M   K1=5.04   B2= 9.63  1997KKb (38704)1826
                                        B3=12.36
                                        B(ZnAL)=5.40
                                        B(ZnA2L)=9.92
                                        B(ZnAL2)=12.60
Method: polarography. HA is pyridoxine (vitamin B6). Medium pH 8.50.
--------------------------------------------------------------------------------
Zn++       vlt NaClO4 25°C 0.10M C        K1=5.3    B2=10.30  1983KVb (38705)1827
                                        B3=16.9
Method: polarography. pH 6.0
--------------------------------------------------------------------------------
Zn++       gl  KNO3   30°C 0.10M C        K1=5.08   B2=9.74   1979HAa (38706)1828
--------------------------------------------------------------------------------
Zn++       vlt NaClO4 30°C 0.50M C        K1=1.48   B2= 3.54  1977GCa (38707)1829
Method: polarography. Medium pH not stated.
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M C        K1=5.84   B2=10.27  1976MTa (38708)1830
                                        B(ZnHL)=12.11
                                        B(ZnH-1L)=-2.6
                                        B(ZnH-1L2)=1.03
--------------------------------------------------------------------------------
Zn++       gl  oth/un 17°C 0.01M U        B2=9.6         1952PEa (38709)1831
Medium: ZnSO4
********************************************************************************
C5H9NO3S               H2L    Thiopronin       CAS 1953-02-2  (2162)
N-2-Mercaptopropanoyl-glycine; CH3.CH(SH).CO.NH.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaCl   37°C 0.15M C        K1=5.371  B2=10.086 1985FWa (38777)1832
                                        B3=13.285
--------------------------------------------------------------------------------
Zn++       gl  KNO3   22°C 0.10M U        K1=5.72   B2=10.45  1975SHa (38778)1833
********************************************************************************
C5H9NO3S               H2L    N-Acetyl-Cys     CAS 616-91-1  (1187)
N-Acetylcysteine; CH3.CO.NH.CH(CH2.SH)COOH
--------------------------------------------------------------------------------
```

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	M		K1=4.90	B2=11.48	1993GVa	(38807)1834
							B(ZnHL2)=18.39			
							B(Zn(OH)L2)=2.71			
Zn++	gl	NaCl	37°C	0.15M	C		K1=5.444	B2=11.28	1992BHc	(38808)1835
							B3=14.801			
							B(ZnH-1L)=-2.700			
							B(Zn2H-1L)=0.917			
Zn++	gl	KNO3	25°C	0.10M	M	M			1989SHd	(38809)1836
							K(Zn(nta)+L)=3.39			
Zn++	gl	oth/un	25°C	0.10M	U		K1=6.35	B2=12.11	1975IMa	(38810)1837

Medium not stated.

****

C5H9NO4 H2L Glutamic acid CAS 56-86-0 (22)

2-Aminopentanedioic acid; H2N.CH(CH2.CH2.COOH)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=5.69		2003AHa	(38974)1838
Zn++	gl	KCl	30°C	0.16M	U	I	K1=4.89	B2= 9.01	2001BRa	(38975)1839
							B(ZnHL)=10.63			

Data for 5.8-36.8% w/w urea/H2O, 0.16 M KCl. At 36.8%, K1=4.87, B2=9.30.

Zn++	gl	NaNO3	25°C	0.10M	C	M	K1=5.70	B2= 9.74	2000KAb	(38976)1840
							K(ZnA+L)=5.95			

H2A=Dipicolinic acid.

Zn++	gl	KNO3	25°C	0.10M	C	M	K1=4.50		1999AAa	(38977)1841
							K(ZnL+A)=3.48			
							B(ZnLA)=7.98			
							K(ZnHL+B)=3.65			

HA=MOPSO, HB=MOPS.

Zn++	gl	NaNO3	30°C	0.20M	U	M	K1=4.90		1999PPa	(38978)1842
							B(ZnAL)=7.48			
							B(ZnCL)=7.33			
							B(ZnDL)=7.80			

A is imidazole, C is 2-Me-imidazole, D is 2-Et-imidazole.

Zn++	vlt	NaClO4	25°C	1.0M	C	M			1999VKc	(38979)1843
							B(ZnLA)=6.32			
							B(ZnLA2)=9.66			
							B(ZnL2A)=10.81			

Method: polarography. Medium pH: 8.5. A is 4-picoline.

```
Zn++       gl  NaClO4 25°C  1.0M U    M   K1=5.60   B2= 8.90  1995KDa (38980)1844
                                           K3=1.20
                                           B(ZnLA)=6.67
                                           B(ZnLA2)=9.59
                                           B(ZnL2A)=10.83
Medium pH 8.50. HA is propanoic acid.
-------------------------------------------------------------------------------
Zn++       gl  NaCl   20°C 0.10M U                      1994SDa (38981)1845
                                           B(ZnHL)=21.15
                                           B(ZnH2L)=26.24
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C  1.0M M        B2=5.78        1991MKa (38982)1846
                                           K(Zn+HL)=5.26
                                           K(Zn+2HL)=5.19
                                           K(Zn+3HL)=5.56
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 1.00M U        K1=4.53   B2=7.79   1990BFa (38983)1847
                                           B3=9.41
                                           B(ZnHL)=10.25
                                           B(ZnHL2)=15.44
                                           B(ZnHL3)=18.90
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M                 1989MAd (38984)1848
                                           K(ZnA+L)=8.41
                                           B(ZnAL)=15.26
H2A is N-(2-acetamido)imino diethanoic acid.
-------------------------------------------------------------------------------
Zn++       gl  NaCl   37°C 0.15M U        K1=4.685  B2=8.470  1985CFb (38985)1849
                                           B(ZnH-1L2)=-1.19
-------------------------------------------------------------------------------
Zn++       ISE KNO3   25°C 0.10M U    M   K1=5.34   B2=8.27   1985DVa (38986)1850
                                           K(ZnL+H)=8.06
                                           K(Zn(IDA)+L)=3.34
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U    M                 1985NSd (38987)1851
                                           K(ZnL+uracil)=5.02
                                           K(ZnL+thymine)=5.28
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M M        K1=4.89   B2= 8.96  1981GVa (38988)1852
-------------------------------------------------------------------------------
Zn++       gl  KCl    30°C 0.10M U    M   K1=5.48   B2=9.48   1979SJb (38989)1853
                                           K(ZnL+Thiomalate)=6.64
                                           K(ZnL+Thiodiglycolate)=5.55
-------------------------------------------------------------------------------
Zn++       nmr oth/un  3°C 0.50M U                      1973HAb (38990)1854
                                           K(Zn+HL)=1.39
35Cl probe. 3.16 C
-------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.50M U        K1=4.49   B2=8.25   1970SFb (38991)1855
                                           B3=9.8
```

```
--------------------------------------------------------------------------------
Zn++       oth KNO3   20°C 0.10M U        K1=5.6    B2=8.80   1964JOa (38992)1856
Method: paper electrophoresis
--------------------------------------------------------------------------------
Zn++       vlt NaClO4 20°C 0.20M U        K1=5.73   B2=9.6    1961JDa (38993)1857
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.02M U        K1=5.45        1961JDa (38994)1858
--------------------------------------------------------------------------------
Zn++       vlt oth/un 25°C    ?  U        K1=9.0         1959MHa (38995)1859
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.02M U        K1=5.45   B2=9.46   1954REa (38996)1860
--------------------------------------------------------------------------------
Zn++       gl  oth/un 15°C .005M U        B2=8.8         1953PEa (38997)1861
Medium: 0.005 ZnSO4
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C 0.01M U        B2=8.5         1952ALa (38998)1862
********************************************************************************
C5H9NO4               H2L                      CAS 1948-48-7  (3038)
3-Carboxymethylaminopropanoic acid; HOOC.CH2.NH.CH2.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    30°C 0.10M U        K1=6.17   B2=10.48  1952CMb (39154)1863
********************************************************************************
C5H9NO4               H2L    MIDA              CAS 4408-64-4  (190)
N-Methyliminodiethanoic acid; CH3.N(CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.50M U         K1=7.44   B2=13.70  1992GLa (39205)1864
                                          B(ZnH-1L)=-0.48
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M   K1=7.63        1990DAb (39206)1865
                                          K(ZnL+A)=3.90
                                          B(ZnLA)=11.53
H2A: salicylaldoxime
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M   K1=7.63        1990DAc (39207)1866
                                          K(ZnL+A)=3.52
                                          B(ZnAL)=11.15
HL: benzohydroxamic acid
--------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C  2.0M U        K1=7.44   B2=13.61  1977MGb (39208)1867
--------------------------------------------------------------------------------
Zn++       nmr oth/un 32°C 0.50M U        K1=7.06   B2=13.25  1973HAb (39209)1868
35Cl probe
--------------------------------------------------------------------------------
Zn++       cal KNO3   20°C 0.10M U   H                   1965ANa (39210)1869
DH(K1)=-9.1 kJ mol-1, DS=115.8 J K-1 mol-1; DH(B2)=-24.4, DS=185.6
--------------------------------------------------------------------------------
```

```
Zn++       EMF oth/un 20°C  ->0  U        K1=9.66   B2=17.26  1945SKa (39211)1870
Method: H electrode
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U        K1=7.66   B2=14.09  1945SKa (39212)1871
********************************************************************************
C5H9NO4S              H2L                        (1736)
3-(Carboxymethyl)thio-L-alanine; HOOC.CH2.S.CH2.CH(NH2)COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaCl   37°C 0.15M C        K1=4.988  B2=8.588  1989BVa (39306)1872
                                          B(ZnH-1L)=-3.496
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 2.00M U        K1=5.04   B2=9.07   1980MAc (39307)1873
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=5.12   B2=9.26   1974NBb (39308)1874
********************************************************************************
C5H9NS2                HL                      CAS 25769-03-3  (3623)
Pyrrolidine-N-carboxydithioic acid; C4H8N-CSSH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       vlt oth/un 25°C 0.70M U  I     K1=4.40        1985BEa (39328)1875
Medium: seawater salinity(S)=36. When S=24: K1=4.36; S=12: 4.43; S=2.3: 4.87
--------------------------------------------------------------------------------
Zn++       dis oth/un 22°C 0.01M U        B2=10.1        1973SSa (39329)1876
--------------------------------------------------------------------------------
Zn++       vlt KCl    25°C 1.00M U        B2=10.5        1973SSa (39330)1877
********************************************************************************
C5H9N3                   L    Histamine        CAS 51-45-6  (103)
4(5)-(2'-Aminoethyl)imidazole; C3H3N2.CH2.CH2.NH2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaCl   25°C 0.10M C T      K1=5.15   B2= 9.97  1998TGa (39484)1878
                                          B(ZnHL)=10.87
                                          B(ZnH-1L)=-3.04
At 90 C: K1=4.5, B2=8.6, B(ZnHL)=10.87, B(ZnH-1L)=-2.0.
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C   H  R K1=5.21   B2=10.13  1997SJa (39485)1879
                                          B(ZnHL)=11.72
IUPAC evaluation. DH(K1)=-23.9 kJ mol-1, DH(K2)=-19.6, DH(CuHL)=-60.0
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M U        K1=4.95   B2= 8.69  1993GAa (39486)1880
--------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M U    M   K1=6.11        1991RSb (39487)1881
                                          B(Zn(Cys)L)=18.30
--------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M C    M   K1=6.11        1985RRc (39488)1882
                                          B(ZnL(cytidine))=11.73
```

```
--------------------------------------------------------------------------------
Zn++       cal KNO3   25°C 0.10M C   H                   1984ACb (39489)1883
DH(K1)=-23.9 kJ mol-1, DS=19.6 J K-1 mol-1; DH(B2)=-43.5, DS=50;
DH(ZnHL)=-60.6, DS=16.
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U    M   K1=5.17   B2=9.73   1984DMc (39490)1884
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=5.69        1983LWa (39491)1885
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M C    M   K1=4.867  B2= 9.66  1982BKc (39492)1886
                                          B(ZnH-1L)=-2.736
                                          B(Zn(ser)L)=9.257
                                          B(ZnH(lys)L)=19.366
                                          B(ZnH2(lys)L)=25.987
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M U    M   K1=5.93   B2=10.45  1982NVa (39493)1887
                                          B(ZnHL)=11.91
                                          B(ZnL(His))=11.78
                                          B(ZnHL(His))=18.58
                                          B(ZnH2L(His))=24.2
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M U    M                   1980KBa (39494)1888
                                          B(ZnLA)=14.59
                                          B(ZnHLA)=21.13
A=Cysteine. Also with histidine, threonine, citric acid and glutamine
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.20M C        K1=5.27   B2=10.23  1979MBa (39495)1889
                                          K(Zn+HL)=1.53
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M U    M   K1=5.56   B2=10.29  1978SKa (39496)1890
                                          B(ZnHL)=11.78
                                          B(ZnH-1L)=-2.83
B(ZnL(Gly))=9.97, B(ZnL(en))=10.60, B(ZnL(His))=11.48
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=5.25   B2=10.20  1977DOb (39497)1891
                                          B(ZnHL)=11.64
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.20M U T      K1=5.15   B2=9.99   1971RMd (39498)1892
K1(15 C)=5.19, K1(40 C)=4.96, K2(15 C)=4.95, K2(40 C)=4.72
--------------------------------------------------------------------------------
Zn++       gl  KNO3   37°C 0.15M U        K1=5.03   B2=9.81   1969PSb (39499)1893
                                          B3=12.09
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.20M U        K1=5.62        1963CCb (39500)1894
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C .058M U T      K1=5.38   B2=9.84   1961SMa (39501)1895
0 C: K1=5.66, K2=4.72; 45 C: K1=5.02, K2=4.41
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C .005M U        B2=9.6         1953PEa (39502)1896
Medium: 0.005 ZnSO4
```

```
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C .015M U        B2=8.7         1952ALa (39503)1897
--------------------------------------------------------------------------------
Zn++       gl  KNO3   30°C  1.0M U T      K1=5.77   B2=16.27  1952HAa (39504)1898
50 C: K1=5.96, K2=4.49
********************************************************************************
C5H9N3O4S             H2L                     CAS 16907-58-7  (2106)
Thiosemicarbazone-diethanoic acid; H2N.CS.NH.N(CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    30°C 0.10M U        K1=5.8         1967GNb (39559)1899
                                         K(Zn+HL)=4.4
--------------------------------------------------------------------------------
Zn++       cal KNO3   30°C 0.10M U   H                   1967GNc (39560)1900
DH(K1)=13.0 kJ mol-1, DS=155 J K-1 mol-1
********************************************************************************
C5H9N3O5              H2L                     CAS 85594-21-4  (9125)
2-(Acetylamino)-N,N'-dihydroxypropanediamide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       vlt KNO3   25°C 0.10M C                       2004YYa (39580)1901
                                         K1eff=9.00
Method: square wave voltammetry. Medium pH 7.0.
********************************************************************************
C5H9N3O5              H2L                     CAS 4438-86-2  (3622)
Semicarbazone-1,1-diethanoic acid; H2N.CO.NH.N(CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    30°C 0.10M U        K1=6.6         1967GNb (39589)1902
                                         K(Zn+HL)=5.1
--------------------------------------------------------------------------------
Zn++       cal KNO3   30°C 0.10M U   H                   1967GNc (39590)1903
DH(K1)=-1.7 kJ mol-1, DS=121 J K-1 mol-1
********************************************************************************
C5H9N3S                HL                      (1822)
2-Mercaptohistamine;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=9.17   B2=15.72  1977STc (39604)1904
********************************************************************************
C5H10NO7P             H4L    PMIDA            CAS 5994-61-6  (2433)
N-(Phosphonomethyl)iminodiethanoic acid; H2O3P.CH2.N(CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=12.36       2000SDa (39645)1905
```

```
                                        K(ZnL+H)=4.78
                                        K(ZnHL+H)=2.1
                                        K(ZnL+OH)=3.3
--------------------------------------------------------------------------------
Zn++       gl  KNO3   30°C 0.10M U T HM   K1=12.94  B2=22.34  1997RPc (39646)1906
                                        K(ZnL+gly)=3.51
                                        K(ZnL+ala)=3.25
                                        K(ZnL+A)=8.36
                                        K(Zn(phen)+L)=12.75
Data for 20-50 C. DH(K1)=-37 kJ mol-1, DS(K1)=126 J K-1 mol-1, DH(K2)=-26,
DS(K2)=93. H2A is catechol. K(Zn(bpy)+L)=12.63, K(Zn(ida)+L)=11.40.
--------------------------------------------------------------------------------
Zn++       gl  NaCl   25°C 0.10M U        K1=11.55       1993DLa (39647)1907
                                        B(ZnHL)=16.28
                                        B(ZnH-1L)=1.23
--------------------------------------------------------------------------------
Zn++       ix  NaNO3   RT  0.10M U        K1=13.2        1985PMc (39648)1908
--------------------------------------------------------------------------------
Zn++       oth KNO3    RT  0.10M C                       1980MVa (39649)1909
                                        K(Zn+HL)=5.9
Method: paper electrophesis.
--------------------------------------------------------------------------------
Zn++       gl  KCl    30°C 0.10M U        K1=9.0         1958OMb (39650)1910
********************************************************************************
C5H10N2O2              HL                        (3039)
Dimethylglyoxime O-methyl ether; CH3.C(:N.OH).C(:N.O.CH3).CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U        K1=7.47   B2=14.36  1954CFa (39704)1911
********************************************************************************
C5H10N2O2              HL                     CAS 2762-32-5  (3041)
Piperazine-2-carboxylic acid; C4H9N2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    22°C 0.10M U        K1=4.4         1960REb (39718)1912
********************************************************************************
C5H10N2O3              HL    Glutamine        CAS 56-85-9  (18)
2-Aminopentanedioic acid 5-amide; H2N.CH(CH2.CH2.CO.NH2)COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       vlt KNO3   25°C 0.10M C    M   K1=4.38   B2= 8.38  1991KNb (39790)1913
                                        B3=10.24
                                        B(ZnAL)=5.97
                                        B(ZnA2L)=8.26
                                        B(ZnAL2)=9.61
Method: polarography, medium pH 8.5. HA is ethanoic acid.
--------------------------------------------------------------------------------
```

```
Zn++       gl  NaCl   37°C 0.15M U    M T K1=4.215  B2=7.808  1985CFb (39791)1914
                                          B(ZnH-1L2)=-1.35
Ternary complex with cysteine
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M U      T K1=4.174  B2=7.66   1980KBa (39792)1915
                                          B(ZnH-1L)=-2.1
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=4.17   B2=7.75   1973TSb (39793)1916
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 3.00M U      T K1=4.83   B2=9.17   1973WIa (39794)1917
                                          B3=11.84
--------------------------------------------------------------------------------
Zn++       gl  oth/un 15°C .005M U        B2=8.4         1953PEa (39795)1918
Medium: 0.005 ZnSO4
********************************************************************************
C5H10N2O3              HL    Ala-Gly          CAS 687-69-4  (55)
Alanyl-glycine; H2N.CH(CH3).CO.NH.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.20M U        K1=2.71   B2=5.52   1982KRc (39880)1919
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.01M U        K1=3.00        1954PEa (39881)1920
********************************************************************************
C5H10N2O3              HL    Gly-DL-Ala       CAS 926-77-2  (66)
Glycyl-DL-alanine; H2N.CH2.CO.NH.CH(CH3).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.20M U        K1=3.47   B2=6.51   1982KRc (39929)1921
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.01M U        K1=4.1         1954PEa (39930)1922
********************************************************************************
C5H10N2O3              HL    Gly-Ala          CAS 3695-73-6  (56)
Glycyl-alanine; H2N.CH2.CO.NH.CH(CH3).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 30°C 0.20M U    M   K1=4.10        1999PGa (39994)1923
                                          B(ZnAL)=5.50
                                          B(ZnBL)=6.19
                                          B(ZnCL)=6.19
A=imidazole, B=2-methylimidazole, C=2-ethylimidazole.
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.20M M        K1=3.78        1996VBa (39995)1924
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.20M M    M   K1=3.789  B2= 6.65  1994VBb (39996)1925
                                          B(ZnH-1L)=-3.968
B(Zn(Ala)L)=8.826, B(Zn(Phe)L)=8.594, B(Zn(Tyr)L)=8.641,
B(Zn(Trp)L)=8.823, B(Zn(His)L)=10.794, B(ZnH(His)L)=16.912.
```

Zn++ gl NaClO4 25°C 0.20M M K1=3.789 B2= 6.65 1994VBc (39997)1926
****
C5H10N2O3 L CAS 5619-16-9 (4324)
Glycylglycine methyl ester; H2N.CH2.CO.NH.CH2.CO2CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.05M U K1=2.77 B2=5.10 1973NAb (40031)1927
****
C5H10N2O3S H2L Cys-Gly CAS 19246-18-5 (2006)
Cysteinyl-glycine; H2N.CH(CH2.SH)CO.NH.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 35°C 0.10M C T HM K1=8.51 2003RRa (40058)1928
B(ZnLA)=17.18
HA is histidylglycine. Data for 35 and 45 C. DH(ZnLA)=-42.9 kJ mol-1,
DS(ZnLA)=185 J K-1 mol-1.

Zn++ gl KCl 25°C 0.20M C K1=8.15 B2=15.96 1988SKc (40059)1929
****
C5H10N2O3S H2L Gly-Cys CAS 57281-78-4 (2550)
Glycyl-cysteine; H2N.CH2.CO.NH.CH(CH2.SH).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.20M C B2=11.60 1988SKc (40066)1930
B(ZnHL2)=20.28
B(ZnH2L2)=27.86
B(ZnH-1L2)=1.87
****
C5H10N2O4 HL CAS 1955-67-5 (6736)
2-Aminopentanoic-5-hydroxamic acid; HOOC.CH(NH2).CH2.CH2.CO.NOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.20M C K1=7.34 1993FBa (40076)1931
B(ZnHL)=14.22
B(Zn2HL)=19.97
B(Zn2L)=10.90
B(Zn2H-1L)=0.48
****
C5H10N2O4 HL Gly-Ser CAS 7361-43-5 (281)
Glycyl-serine; H2N.CH2.CO.NH.CH(CH2.OH).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl oth/un 25°C 0.01M U K1=3.7 1954PEa (40098)1932
****

C5H10N2O4 HL Ser-Gly CAS 687-63-8 (2386)
Seryl-glycine; H2N.CH(CH2.OH).CO.NH.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.20M C K1=3.75 B2= 5.36 1986FTa (40116)1933
****
C5H10N4OS HL (2817)
Biacetylmonoxime-thiosemicarbazone; CH3.C(:N.NH.CS.NH2).C(:N.OH).CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 30°C 50% U T H K1=6.87 1992HRa (40129)1934
Medium: 50% v/v EtOH/H2O, 0.1 M NaClO4. Data for 40 and 50 C.
DH(K1)=-50.5 kJ mol-1, DS(K1)=36.0 J K-1 mol-1.
****
C5H10N4O3 L CAS 54376-69-1 (8335)
N,N'-Carbonylbis(2-aminoacetamide);

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M U TIH K1=10.15 B2=16.35 1980SAc (40135)1935
Data for 0.075-0.15 M. At I=0, K1=10.50, K2=6.45. Also data for 30 C.
DH and DS values.
****
C5H10OS2 HL CAS 110-50-9 (591)
(Butoxy)dithiomethanoic acid; CH3.CH2.CH2.CH2O.CSSH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ vlt KNO3 25°C 0.40M C 1984HSb (40152)1936
B3=9.04
Method: polarography.

Zn++ dis KNO3 25°C 1.00M U B2=6.8 1983SAa (40153)1937
****
C5H10OS2 HL CAS 6791-12-4 (8866)
Isobutoxydithiomethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ vlt KNO3 25°C 0.40M C 1984HSb (40166)1938
B3=9.20
Method: polarography.
****
C5H10O2 HL IsoValeric acid CAS 503-74-2 (1311)
3-Methyl-butanoic acid, Isovaleric acid; (CH3)2CH.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---

```
Zn++       gl  NaNO3  25°C 0.10M C  I M   K1=0.96        1988LTc (40181)1939
                                          K(Zn(phen)+L)=0.93
Data also for 50% v/v EtOH/H2O, and 50% v/v Dioxan/H2O mixtures
--------------------------------------------------------------------------------
Zn++       vlt NaClO4 30°C 0.50M C        K1=1.30   B2= 0.90  1978GCb (40182)1940
                                          B3=2.30
Method: polarography. Medium pH 6.4
********************************************************************************
C5H10O2                HL    n-Valeric acid   CAS 109-52-4  (3027)
Pentanoic acid; CH3(CH2)3.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  C    M   K1=2.44        1985STb (40197)1941
                                          K(Zn(phen)+L)=2.42
--------------------------------------------------------------------------------
Zn++       vlt NaClO4 30°C 0.50M C        K1=0.30   B2= 1.23  1978GCb (40198)1942
                                          B3=2.00
Method: polarography. Medium pH 6.4
********************************************************************************
C5H10O2S               HL                     CAS 4455-13-4  (4321)
(1-Methylethylthio)ethanoic acid; (CH3)2.CH.S.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U    M   K1=2.22        1972SGa (40228)1943
                                          K(ZnA+bpy)=2.22
********************************************************************************
C5H10O2S               HL                     CAS 20600-60-6  (4322)
(Propylthio)ethanoic acid; CH3.CH2.CH2.S.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U    M   K1=2.26        1972SGa (40234)1944
                                          K(ZnA+bpy)=2.19
Medium: 50% dioxan/H2O, 0.1 M NaClO4
********************************************************************************
C5H10O2S               HL                     CAS 7244-82-8  (3042)
3-Ethylthiopropanoic acid; CH3.CH2.S.CH2.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  50%  U        K1=3.02   B2=6.24   1956IFa (40239)1945
********************************************************************************
C5H10O3S               HL                      (4325)
Methoxyethyl thioglycollate; HS.CH2.CO.OCH2.CH2.OCH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       vlt KNO3   25°C 0.50M U        K1=3.95   B2=6.95   1971SSf (40292)1946
```

```
                                        B3=10.04
*****************************************************************************
C5H11N                  L                     CAS 1003-03-8  (304)
Cyclopentylamine;
-----------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-----------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M C         K1=4.164  B2=7.832  1974MWb (40390)1947
                                        B(Zn2H-2L2)=4.465
*****************************************************************************
C5H11N                  L    Piperidine       CAS 110-89-4  (105)
Perhydropyridine; cyclo(-CH2.CH2.CH2.NH.CH2.CH2-)    C5H11N
-----------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-----------------------------------------------------------------------------
Zn++       cal non-aq 25°C 100%  C  IH                   2002LVa (40426)1948
                                        K(ZnP+L)=3.61
                                        K(ZnPL+L)=2.90
Medium: CCl4. ZnP: Zn(II)tetraphenylporphyrine. DH(ZnP+L)=-21.17 kJ mol-1,
DS=-2 J K-1 mol-1; DH(ZnPL+L)=-3.46, DS=44. Data for related ligands.
-----------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U                       1994IUa (40427)1949
                                        K(ZnP+L)=5.81
Medium: CHCl3.  ZnP is a zinc porphyrin host.
-----------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U    M                  1993BKd (40428)1950
                                        K(ZnA+L)=6.16
Medium: toluene. A:2,3,7,8,12,13,17,18-octabromo-5,10,15,20-tetraphenyl-
porphyrin. Also data for L=pyridine (4.84), imidazole (5.84), DMSO (4.12).
-----------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U    M                  1993SSc (40429)1951
                                        K(ZnA+L)=4.551
Medium:Toluene. H2A:Octaethylporphyrin.
-----------------------------------------------------------------------------
Zn++       sp  non-aq   ?  100%  U    M                  1990AHb (40430)1952
                                        K(ZnA+L)=4.08
Medium: CH2Cl2. A=biphenyl capped mesoporphyrin.   Data for other porphyrin
Zn complexes
*****************************************************************************
C5H11NO2               HL    Valine           CAS 72-18-4  (43)
2-Amino-3-methylbutanoic acid; H2N.CH(CH(CH3)2)COOH
-----------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-----------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C    M   K1=5.32   B2= 9.19  2000ZLa (40629)1953
                                        B(ZnLA)=11.25
A=12-Pentyl-1,4,7,10-tetraazacyclotridecane-11,13-dione.
-----------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M C    M   K1=4.53   B2= 8.43  1998ZWa (40630)1954
                                        B(ZnH-1L2)=0.95
```

```
                                        B(ZnH-2L2)=-8.19
Data for ternary complexes with 3,3,9,9-tetramethyl-4,8-diazaundecane-
2,10-dione dioxime
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.20M U T HM   K1=5.33        1996JLd (40631)1955
                                        K(Zn(bpy)+L)=5.06
Data for 25-45 C. DH(K1)=-24.3 kJ mol-1, DS(K1)=22 J K-1 mol-1;
DH(Zn(bpy)L)=-46.0, DS(Zn(bpy)L)=57.
-------------------------------------------------------------------------------
Zn++       gl  KNO3   30°C 0.10M U        K1=4.76        1994RSa (40632)1956
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.20M U T  M   K1=4.74   B2= 8.98  1993PPa (40633)1957
                                        K(ZnA+L)=4.63
A is 2,2'-bipyridylamine. Also data for 35 and 45 C.
-------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C TI   T K1=4.46   B2=8.24   1993SKa (40634)1958
IUPAC evaluation
-------------------------------------------------------------------------------
Zn++       vlt KNO3   25°C 0.10M C    M   K1=4.43   B2= 8.58  1991KNb (40635)1959
                                        B3=10.84
                                        B(ZnAL)=6.17
                                        B(ZnA2L)=8.57
                                        B(ZnAL2)=10.16
Method: polarography, medium pH 8.5. HA is ethanoic acid.
-------------------------------------------------------------------------------
Zn++       gl  KNO3   37°C 0.15M C    M   K1=4.50        1990KKc (40636)1960
                                        B(ZnH-1L)=-2.95
                                        B(ZnHL(imidazole))=14.40
                                        B(ZnL(imidazole)2)=10.38
-------------------------------------------------------------------------------
Zn++       gl  KNO3   37°C 0.15M U    M   K1=4.50        1990KKc (40637)1961
                                        B(ZnH-1L)=-2.95
                                        B(ZnA2L)=10.38
                                        B(ZnHAL)=14.40
A: imidazole
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M                  1989MAd (40638)1962
                                        K(ZnA+L)=4.27
                                        B(ZnAL)=11.12
H2A is N-(2-acetamido)imino diethanoic acid.
-------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.20M U    M   K1=4.70   B2=8.72   1989RVa (40639)1963
                                        K(ZnA+L)=4.21
A=bis(imidazol-2-yl)methane
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 27°C 0.20M U    M   K1=4.74   B2= 8.98  1988PPc (40640)1964
                                        K(ZnA+L)=4.63
A is 2,2'-dipyridylamine.
-------------------------------------------------------------------------------
Zn++       ISE KNO3   25°C 0.10M U    M T K1=4.50   B2=8.16   1985DVa (40641)1965
```

```
                                        K(Zn(IDA)+L)=3.30
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=4.58        1985MKa (40642)1966
--------------------------------------------------------------------------------
Zn++       gl  oth/un 30°C 0.20M U    M   K1=4.74        1984JOb (40643)1967
                                        K(Zn(bpy)+L)=4.69
Medium: not stated.
--------------------------------------------------------------------------------
Zn++       oth NaClO4 35°C 0.10M U    M   K1=4.40   B2=7.81   1984SYa (40644)1968
                                        B(Zn(NTA)+L)=3.17
Method: paper electrophoresis
--------------------------------------------------------------------------------
Zn++       vlt KNO3   30°C 0.30M C    M   K1=4.50   B2= 7.35  1983APa (40645)1969
                                        B(ZnAL)=6.77
                                        B(ZnAL2)=7.71
                                        B(ZnA2L)=8.07
Method: polarography. Medium: 0.30 M KNO3, pH 8.0. H2A is oxalic acid.
B(Zn(en)L)=10.12, B(Zn(en)L2)=11.00, B(Zn(en)2L)=12.65
--------------------------------------------------------------------------------
Zn++       gl  KNO3   37°C 0.15M U      T K1=4.44   B2=8.24   1969CPc (40646)1970
                                        B3=10.62
                                        K(ZnL+H20=Zn(OH)L+H)=-8.62
--------------------------------------------------------------------------------
Zn++       oth oth/un 25°C 0.50M U      T K1=4.40   B2=8.17   1967RPd (40647)1971
Method: optical rotation
--------------------------------------------------------------------------------
Zn++       ISE oth/un 25°C  4.0M U      T K1=4.60   B2=9.06   1958PEa (40648)1972
Method: Cd/Hg electrode
--------------------------------------------------------------------------------
Zn++       ISE oth/un 25°C  4.0M U      T K1=4.67   B2=8.97   1958PQa (40649)1973
Method: Cd/Hg electrode
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.02M U        B2=8.1         1954REa (40650)1974
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C 0.01M U        B2=8.2         1952PEa (40651)1975
Medium: ZnSO4
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.01M U        K1=5.00   B2=9.10   1949MMa (40652)1976
********************************************************************************
C5H11NO2               HL    Nor-Valine       CAS 760-78-1  (689)
2-Aminopentanoic acid; CH3.CH2.CH2.CH(NH2).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C    M   K1=5.30   B2= 9.64  2000KAb (40815)1977
                                        K(ZnA+L)=3.52
H2A=Dipicolinic acid.
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.20M U T HM   K1=4.50        1996JLd (40816)1978
                                        K(Zn(bpy)+L)=4.25
```

Data for 25-45 C. DH(K1)=-17.6 kJ mol-1, DS(K1)=33 J K-1 mol-1;
DH(Zn(bpy)L)=-15.9, DS(Zn(bpy)L)=29.

Zn++ gl KNO3 25°C 0.10M C T K1=4.42 B2=8.52 1975IPb (40817)1979

Zn++ gl oth/un 25°C 0.02M U K1=5.09 B2=9.19 1954REa (40818)1980

Zn++ gl oth/un 20°C 0.00 U B2=8.1 1952PEa (40819)1981

Medium: 0.0005 ZnSO4

****

C5H11NO2S HL Methionine CAS 63-68-3 (42)

2-Amino-4-(methylthio)butanoic acid; H2N.CH(CH2.CH2.S.CH3)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C	M	K1=4.82 K(ZnL+A)=3.74 B(ZnLA)=8.56 K(ZnHL+B)=1.89 K(ZnHL+C)=1.78	1999AAa	(41028)1982

HA=MOPSO, HB=MOPS, HC=DIPSO.

Zn++ vlt NaClO4 25°C 1.0M C M K1=4.38 B2= 8.36 1997KKb (41029)1983
B3=11.73
B(ZnAL)=4.52
B(ZnA2L)=8.72
B(ZnAL2)=11.92

Method: polarography. HA is pyridoxine (vitamin B6). Medium pH 8.50.

Zn++ gl KNO3 25°C 0.10M C R K1=4.38 B2=8.35 1995BEa (41030)1984

IUPAC evaluation

Zn++ gl NaNO3 25°C 0.10M U K1=4.37 B2= 8.75 1995ZWa (41031)1985

Data for DL-methionine.

Zn++ gl NaClO4 25°C 0.20M U T M K1=4.69 B2= 8.65 1993PPa (41032)1986
K(ZnA+L)=4.54

A is 2,2'-bipyridylamine. Also data for 35 and 45 C.

Zn++ gl NaCl 37°C 0.15M U M 1991HWa (41033)1987
B(ZnLA)=9.696
B(ZnHLA)=16.746
B(ZnH2LA)=20.889

H2A is 7-oxabicyclo-[2,2,1]-hept-5-ene-2,3-dicarboxylic acid

Zn++ gl KNO3 35°C 0.20M U M K1=4.37 B2=7.93 1989RVa (41034)1988
K(ZnA+L)=3.81

A=bis(imidazol-2-yl)methane

Zn++ gl KNO3 25°C 0.10M M M 1989SHd (41035)1989

```
                                        K(Zn(nta)+L)=2.94
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 27°C 0.20M U    M   K1=4.69   B2= 8.65  1988PPc (41036)1990
                                        K(ZnA+L)=4.54
A is 2,2'-dipyridylamine.
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=4.45        1985MKa (41037)1991
-------------------------------------------------------------------------------
Zn++       gl  oth/un 30°C 0.20M U    M   K1=4.69        1984JOb (41038)1992
                                        K(Zn(bpy)+L)=4.59
Medium: not stated.
-------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M U        K1=4.30   B2=8.15   1982FGa (41039)1993
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C      T K1=4.39   B2=8.38   1975IPb (41040)1994
-------------------------------------------------------------------------------
Zn++       oth KNO3   20°C 0.10M U        K1=4.9    B2=8.50   1964JOa (41041)1995
                                        K3=3.2
Method: paper electrophoresis
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=4.37   B2=8.33   1964LMa (41042)1996
-------------------------------------------------------------------------------
Zn++       vlt oth/un 25°C    ?  U        K1=8.3         1959MHa (41043)1997
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.15M U        K1=4.38   B2=8.47   1955LMa (41044)1998
-------------------------------------------------------------------------------
Zn++       gl  oth/un 18°C .005M U        B2=8.3         1953PEa (41045)1999
Medium: 0.005 ZnSO4
*******************************************************************************
C5H11NO2S              HL                      CAS 93964-73-9  (3633)
Cysteine ethyl ester; H2N.CH(CH2.SH).CO.OCH2.CH3
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M M        K1=7.42   B2=16.33  1993GVa (41143)2000
                                        B(ZnHL)=12.70
-------------------------------------------------------------------------------
Zn++       EMF oth/un   ?   dil  U        K1=8.61   B2=16.99  1967YTa (41144)2001
*******************************************************************************
C5H11NO2S             H2L    D-Penicillamine  CAS 52-67-5  (1323)
D-2-Amino-3-mercapto-3-methylbutanoic acid; (CH3)2C(SH)CH(NH2)COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M C    M                    1996NAa (41169)2002
                                        B(ZnHLA)=23.79
                                        B(ZnLA)=16.96
                                        K(ZnHA+L)=10.18
                                        K(ZnL+A)=6.63
HA is DL-2,3-diaminopropanoic acid, HB is DL-2,4-diaminobutanoic acid.
```

B(ZnH2LB)=30.67.

Zn++ gl NaClO4 37°C 0.15M C M 1996NAa (41170)2003
B(Zn(orn)H2A)=31.44
B(Zn(orn)HA)=24.65
K(ZnH(orn)+L)=10.09
K(ZnL+orn)=6.59
K(Zn(orn)+L)=10.23, B(Zn(orn)L)=16.92.

Zn++ oth NaClO4 35°C ? U K1=9.70 B2=17.01 1991TSb (41171)2004

Zn++ gl KCl 25°C 0.10M M K1=9.75 B2=19.56 1987HLa (41172)2005
B(ZnHL)=15.11
B(ZnHL2)=25.44
B(ZnH2L2)=30.7

Zn++ gl KNO3 25°C 0.10M C K1=9.42 B2=19.54 1983SLc (41173)2006
K(Zn+HL+L)=14.92
K(Zn+2HL)=9.67
B(ZnL3)=22.68

Zn++ gl KCl 25°C 0.20M U M K1=9.66 B2=19.39 1979SGa (41174)2007
B(ZnHL)=14.80
B(ZnHL2)=25.23
B(ZnH2L2)=30.65
B(ZnL(Gly))=13.51
B(ZnL(His))=15.14, B(ZnL(Histamine))=14.61
****
C5H11NO2S H2L Penicillamine CAS 52-66-4 (350)
DL-2-Amino-3-mercapto-3-methylbutanoic acid; (CH3)2C(SH)CH(NH2)COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 37°C 0.15M C M K1=10.33 B2=20.19 1993NAc (41230)2008
B(ZnHL2)=25.99
B(ZnH2L2)=31.31
Data for ternary complexes with imidazole, histamine and histidine.
B(ZnH2L(his))=27.83, B(ZnHL(his))=22.66, B(ZnL(his))=16.66, K(ZnL+his)=6.3

Zn++ oth NaClO4 35°C 0.10M C M K1=9.80 B2=17.11 1993SGb (41231)2009
K(Zn(nta)+L)=5.36
Method: electrophoresis. Medium: pH 8.5

Zn++ gl KNO3 32°C 0.0 U 1992BKf (41232)2010
K(Zn+H2L=ZnL+2H)=-8.13
K(Zn+2H2L=ZnL2+4H)=-18.23
Medium: 0.005 M KNO3

Zn++ gl KNO3 25°C 0.10M M M 1989SHd (41233)2011
K(Zn(nta)+L)=7.28

K(Zn(nta)+H+L)=13.79

Zn++ gl NaCl 37°C 0.15M U K1=10.017 B2=18.809 1984JSb (41234)2012

Zn++ gl NaClO4 25°C 3.00M C B2=20.52 1976CWa (41235)2013
B(ZnHL2)=26.79
B(ZnH2L2)=32.72
B(Zn3L4)=47.58
B(Zn3HL4)=53.83
B(ZnH-1L2)=8.56

Zn++ gl KCl 25°C 0.12M U K1=9.42 B2=19.44 1972RJa (41236)2014
K(Zn+HL+L)=25.56
K(Zn+2HL)=30.89
For the D isomer: K1=9.38, B2=19.39, K(Zn+L+HL)=25.55, K(Zn+2HL)=30.88

Zn++ gl NaClO4 20°C 0.10M U K1=9.59 B2=19.56 1968PSg (41237)2015
B(ZnH2L)=25.55
B(ZnH2L2)=31.17

Zn++ vlt oth/un 25°C 0.20M U 1966SPa (41238)2016
B3=16.11
Medium: phosphate buffer

Zn++ gl KNO3 25°C 0.10M U K1=9.51 B2=18.51 1964LMa (41239)2017

Zn++ gl KNO3 25°C 0.15M U K1=10.0 B2=18.90 1962KRa (41240)2018

****

C5H11NO2S HL CAS 2629-59-6 (2461)
S-Ethyl-L-cysteine; H2N.CH(CH2.S.C2H5).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl NaClO4 25°C 1.00M C K1=4.17 B2=8.33 1981CPb (41290)2019
B(ZnH-1L)=-1.05

****

C5H11NO2Se HL CAS 1464-42-2 (1900)
2-Amino-4-(methylseleno)butanoic acid; CH3.Se.CH2.CH2.CH(NH2).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl NaNO3 25°C 0.10M U K1=4.88 B2= 8.75 1995ZWa (41302)2020
Data for DL-selenomethionine.

****

C5H11NS2 HL CAS 147-84-2 (2126)
Diethyldithiocarbamic acid; (CH3.CH2)2N.CSSH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ EMF non-aq 25°C 100% U B2=11.9 1987USa (41329)2021

Medium: DMF, 0.1 M LiClO4

Zn++ ISE non-aq 25°C 100% U K1=7.83 B2=15.7 1984LSb (41330)2022

Medium: DMSO, 0.1 M NaClO4; Ag-electrode. In MeOH: K1=7.7, B2=15.1

Zn++ dis oth/un 25°C 0.01M U B2=11.4 1973SSa (41331)2023

Zn++ vlt KCl 25°C 1.00M U B2=11.6 1973SSa (41332)2024

Zn++ sp non-aq ? 100% U M 1968SRg (41333)2025

K(Zn(HA)2+2HL=ZnL2+2H2A)=0.24

Medium: CCl4. H2A=dithizone

****

C5H11O8P H2L Ribose-5-phosph CAS 4300-28-1 (2756)

Ribose-5-phosphoric acid, Ribofuranoside 5 Phosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	C		K1=2.20	1988MSa (41414)2026	

****

C5H12NO3P H2L PYPH (223)

Piperidine-2-phosphonic acid; C5H10N.PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	24°C	0.10M	U		K1=5.86	1989YKa (41432)2027	
							K(Zn+HL)=2.16		

****

C5H12NO4P HL CAS 51276-47-2 (5704)

2-Amino-4-(methylhydroxyphosphoryl)butanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	23°C	0.10M	U		K1=5.26	1990YTa (41440)2028	

****

C5H12N2O L TMU CAS 632-22-4 (146)

Tetramethylurea; (CH3)2N.CO.N(CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	cal	oth/un	25°C	?	U	H		1980ACa (41476)2029	

ZnX2(s)+2L=ZnL2X2(s) DH = - 83.1 X=Cl DH = -88.7 X=Br DH = - 128 X=I

****

C5H12N2O2 HL Ornithine CAS 1069-31-4 (46)

2,5-Diaminopentanoic acid; H2N.CH2.CH2.CH2.CH(NH2)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	NaClO4	25°C	1.0M	C	M		1999VKc (41547)2030	
							B(ZnLA)=4.87		

```
                                        B(ZnLA2)=7.51
Method: polarography. Medium pH: 8.5. A is 4-picoline.
-------------------------------------------------------------------------
Zn++       gl  KCl    30°C 0.16M U  I     K1=6.90   B2=10.33  1997BSb (41548)2031
                                        B(ZnHL)=14.39
                                        B(ZnHL2)=19.50
Also data for 5.8-36.8% w/w urea/H2O.
-------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C  1.0M U    M                 1995KDa (41549)2032
                                        K(Zn+HL)=3.92
                                        K(Zn+2HL)=6.86
                                        K(Zn+3HL)=9.49
                                        K(Zn+HL+A)=6.23
Medium pH 8.50. K(Zn+HL+2A)=8.60, K(Zn+2HL+A)=10.0. HA is propanoic acid.
-------------------------------------------------------------------------
Zn++       gl  NaCl   25°C  1.0M C      K1=7.34   B2=10.97  1990BFb (41550)2033
                                        B(ZnHL)=14.66
                                        B(ZnHL2)=19.15
                                        B(ZnH2L2)=28.63
                                        B(ZnH2L)=19.78
Method: measurement by glass and Zn/Hg electrodes.
-------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M U    M                 1990NTb (41551)2034
                                        B(Zn(glu)HL)=11.56
                                        K(Zn(glu)+L)=6.17
                                        K(ZnL+glu)=6.29
-------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M C    M   K1=6.69       1986NPa (41552)2035
                                        B(ZnHL)=14.56
                                        B(ZnH2L2)=27.83
B(ZnLA)=11.56, B(ZnHLA)=19.33, A = histamine. Also histidine
-------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C      K1=6.17       1981FGb (41553)2036
                                        B(ZnHL)=14.25
                                        B(ZnH2L2)=27.85
                                        B(ZnHL2)=19.31
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U  I                  1970CMc (41554)2037
                                        K(Zn+HL)=3.77
                                        K(ZnHL+HL)=2.67
I=1.0 M, K(Zn+HL)=2.60
-------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.02M U      K1=4.10   B2=7.30   1954REa (41555)2038
-------------------------------------------------------------------------
Zn++       gl  oth/un 20°C .005M U      B2=7.6        1953PEa (41556)2039
Medium: 0.005 ZnSO4
-------------------------------------------------------------------------
Zn++       gl  oth/un 20°C 0.01M U      B2=6.9        1952ALa (41557)2040
*************************************************************************
C5H12N2O2S            HL    Met-hydroxamic   CAS 19253-87-3  (5992)
```

2-Amino-4-(methylthio)butanehydroxamic acid, Methionine hydrox.a.;
CH3.S.CH2.CH2.CH(NH2).CO.NHOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	37°C	0.15M	M	M		1992MMd (41604)	2041
							B(ZnHL)=11.68		
							B(ZnH-1L)=-1.40		
							B(ZnH-1L2)=1.47		
							B(ZnH2L2)=24.27		

B(Zn2L3)=18.97, B(ZnCuL2)=21.90, B(ZnCuH-1L2)=16.72, B(ZnCuH-2L2)=10.01
B(CuZnH-3L3)=9.5, B(ZnNiH-1L2)=10.96, B(ZnNiH-2L2)=4.09,B(ZnNiH-3L3)=19.73

****

C5H12N2O2S HL (1737)
3-(2-Aminoethyl)thio-L-alanine; H2N.CH2.CH2.S.CH2.CH(NH2)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C			1974NBb (41613)	2042
							K(Zn+HL)=3.71		
							K(ZnHL=ZnL+H)=-6.82		

****

C5H12N4O3 HL Canavanine CAS 543-38-4 (5565)
Canavanine; H2N.CH(COOH).CH2.CH2.O.NH.C(:NH)-NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	U		K1=5.00 B2= 9.20	1991APa (41639)	2043

****

C5H12O3S4 H3L CAS 19872-38-9 (4331)
2,3-Dimercaptopropylthioethanesulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	EMF	KNO3	20°C	0.10M	U		K1=14.20 B2=24.95	1968PRc (41650)	2044

****

C5H12O4S3 H3L CAS 19872-36-7 (4332)
2,3-Dimercaptopropanoxyethanesulfonic acid; HS.CH2.CH(SH).CH2.O.CH2.CH2.HSO3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	EMF	KNO3	20°C	0.10M	U		K1=14.17 B2=24.38	1968PRc (41664)	2045

****

C5H12O5S4 H3L CAS 35617-14-2 (4333)
2,3-Dimercaptopropanesulfonethanesulfonic acid; HS.CH2.CH(SH).CH2.SO2.CH2CH2.HSO3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	EMF	KNO3	?	0.10M	U		K1=14.17 B2=24.21	1968PRc (41695)	2046

****

C5H13NO2 L CAS 105-59-9 (1070)
N-Methyldiethanolamine; CH3.N(CH2.CH2.OH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl oth/un 25°C 0.10M U K1=4.3 B2=7.20 1965DOb (41741)2047
K3=1.9
K4=1.0
****
C5H13NO6P2 H4L CAS 56152-35-3 (8890)
N-Pyrrolidinomethane-1,1-diphosphonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.20M C K1=10.74 2002MKc (41749)2048
B(ZnH2L)=24.17
B(ZnHL)=19.89
B(ZnH-1L)=0.12
B(ZnH2L2)=37.55
B(Zn3H2L2)=46.85.
****
C5H13NO7P2 H4L CAS 32545-75-8 (6890)
N-Methylenedi(phosphonic acid)tetrahydrooxazine; OC4H8N.CH(PO3H2)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.10M M K1=9.46 1978GMf (41762)2049
K(Zn+HL)=7.25
****
C5H13N2O4P H2L (7122)
(S,S)-Alanyl-1-aminoethylphosphonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.10M U K1=4.22 1995HLa (41785)2050
For the (S,R) isomer, K1=4.24, B(ZnH-1L)=-4.26.
****
C5H13N3 L (1866)
cis-3,5-Diaminopiperidine; C5H9N(NH2)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.10M C K1=7.93 B2=14.42 2000PSb (41792)2051
****
C5H14NO5P H2L CAS 5994-60-5 (1302)
N,N'-Bis(2-hydroxyethyl)aminomethylphosphonic acid; (HO.CH2.CH2)2N.CH2.PO3H2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M U K1=6.3 1981BGb (41843)2052

****
C5H14N2 L CAS 7328-91-8 (3029)
2,2-Dimethyl-1,3-diaminopropane; H2N.CH2.C(CH3)2.CH2.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 30°C 1.0M U TIH K1=5.21 B2=10.41 1952HAa (41872)2053
DH(K1)=-20.9 kJ mol-1, DS=33.5; DH(K2)=-20.9, DS(K2)=33.5
0 C: K1=5.58, K2=5.58. In 1 M KCl, 30 C: K1=5.80, K2=4.55
****
C5H15NO6P2 H4L CAS 195000-13-6 (8888)
N-(1-Methylpropyl)aminomethane-1,1-diphosphonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.20M C K1=10.16 2002MKc (41940)2054
B(ZnH2L)=23.56
B(ZnHL)=19.40
B(ZnH-1L)=-0.22
B(ZnH-2L)=-11.54
B(ZnH2L2)=36.53, B(ZnHL2)=26.00, B(Zn4H3L3)=68.59.
****
C5H15NO7P2 H4L AMOK CAS 63132-39-8 (1350)
1-Hydroxy-3-N,N-dimethylaminopropane-1,1-diphosphonic acid;
Me2N.CH2.CH2.C(OH)(PO3H2)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.10M U K1=10.24 1979KBa (41949)2055
K(Zn+HL)=8.90
****
C5H15N3 L CAS 15995-42-3 (153)
1,1,1-Tris(aminomethyl)ethane; (H2N.CH2)3C.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ cal KNO3 25°C 0.50M C H 1980SVa (41971)2056
DH1=-25.4 kJ mol-1, DS1=41, DH(K2)=-20.9, DS2=13 + ZnHL, Zn(OH)L and Zn(OH)2

Zn++ gl KNO3 20°C 0.10M U K1=7.47 1970KAd (41972)2057
K(Zn+HL)=3.82
K(Zn+H2L)=1.86
****
C5H15N3 L CAS 13531-52-7 (738)
1,4,8-triazaoctane, N-(2-Aminoethyl)propane-1,3-diamine; H2NCH2CH2NHCH2CH2CH2NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M U H K1=8.41 1996IFb (41995)2058
*K(ZnL)=-8.90

DH(K1)=-27.9 kJ mol-1, DS(K1)=67.8 J K-1 mol-1.

Zn++ cal KNO3 25°C 0.50M U H 1974BFb (41996)2059
DH(K1)=-35.2, DH(K2)=-35.3 kJ mol-1.

Zn++ gl KNO3 25°C 0.10M U K1=8.6 B2=12.40 1973AHc (41997)2060

Zn++ gl KNO3 25°C 0.50M U K1=8.77 B2=12.57 1973BFa (41998)2061
K(ZnL+OH)=4.99

****

C5H16N4 L (3614)
Tetrakis(aminomethyl)methane; C(CH2.NH2)4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K(Zn+HL)=5.0 K(Zn+H2L)=3.2	1968ZBa (42011)	2062

****

C6H3N3O7 HL Picric acid CAS 88-89-1 (593)
2,4,6-Trinitrophenol; HO.C6H2(NO2)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	oth/un	21°C	0.40M	U		B2=2.92	1955BKa (42080)	2063

Medium:0.2-0.6(some EtOH)

****

C6H4NO2Cl HL CAS 39825-15-5 (3709)
4-Chloro-2-nitrosophenol; HO.C6H3.(2-N:O)(4-Cl)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U		K1=4.53	1961SHa (42176)	2064

Medium: 50% dioxan, 0.1 M KNO3

****

C6H4N2 L CAS 100-48-1 (321)
4-Cyanopyridine; C5H4N.CN

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	non-aq	25°C	100%	U	M	K(ZnA+L)=3.012 K(ZnB+L)=3.234 K(ZnC+L)=3.554	1993SSc (42189)	2065

Medium:Toluene. H2A:Octaethylporphyrin. H2B=t-Octaethylchlorin.
H2C=ttt-Octaethylisobacteriochlorin

****

C6H4N2O5 HL CAS 50-28-5 (505)
2,4-Dinitrophenol; HO.C6H3(NO2)2

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       sp  oth/un 21°C 0.40M U        B2=2.26        1955BKa (42219)2066
Medium: 0.2-0.6, some EtOH
*************************************************************************
C6H4N2O6              H2L                     CAS 7659-29-2  (2694)
1,2-Dihydroxy-3,5-dinitrobenzene; (HO)2.C6H2(NO2)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M M        K1=6.92   B2=12.79  1986HAd (42259)2067
*************************************************************************
C6H4N4O                HL                      CAS 900-47-0  (3083)
4-Hydroxypteridine;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  oth/un 20°C 0.01M U        K1=3.3         1953ALa (42274)2068
*************************************************************************
C6H4O4                H2L                     CAS 615-94-1  (1280)
2,5-Dihydroxy-1,4-benzoquinone;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KCl    30°C  25%  M TIH    K1=7.14   B2=12.20  1991GDe (42300)2069
Medium: 35% Dioxan/H2O, 0.1 M NaClO4. Other solvents and backgrounf concs.
-------------------------------------------------------------------------
Zn++       gl  KCl    30°C  25%  M TIH    K1=6.04   B2=10.22  1991GDe (42301)2070
Medium: 35% Dioxan/H2O, 0.1 M NaClO4. Other solvents and backgrounf concs.
*************************************************************************
C6H4O5                H2L    Comenic acid     CAS 499-78-5  (2544)
3-Hydroxypyran-4-one-6-carboxylic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       sp  KCl    25°C 0.10M M  I     K1=5.28        1985PEe (42316)2071
-------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.50M U        K1=4.86   B2=8.76   1967CBb (42317)2072
*************************************************************************
C6H5NO                  L    Picolinaldehyde  CAS 1121-60-4  (1186)
2-Pyridinecarboxaldehyde; C5H4N.CHO
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U    M                   2000NDa (42380)2073
                                        B(Zn(val)L)=10.29
                                        B(Zn(val)L2)=12.21
                                        B(Zn(val)2L2)=16.71
                                        B(Zn(phe)L)=10.17
B(Zn(phe)L2)=12.05, B(Zn(phe)2L2)=16.49, B(Zn(trp)L)=10.12,
```

B(Zn(trp)L2)=12.38, B(Zn(trp)2L2)=16.53.

Zn++ gl KNO3 25°C 0.10M U M K1=1.67 B2= 3.27 1999NDa (42381)2074
Data for ternary complexes with histidine.

Zn++ nmr non-aq 30°C 100% U K1=0.14 B2=-0.65 1981PWa (42382)2075
Conductivity also used
Medium: CH3CN
****
C6H5NO L CAS 872-85-5 (1319)
4-Pyridinecarboxaldehyde; C5H4N.CHO

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ nmr non-aq 30°C 100% U K1=0.04 B2=-0.84 1981PWa (42388)2076
Conductivity also used
Medium: CH3CN
****
C6H5NO2 HL Picolinic acid CAS 98-98-6 (391)
2-Pyridine-carboxylic acid; C5H4N.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 50% C K1=6.10 B2=11.47 1988CFb (42457)2077
B3=15.77
Medium: 50% v/v dioxan/H2O, 0.1 M KNO3

Zn++ gl diox/w 25°C 50% C M 1988CTa (42458)2078
B(ZnAL)=18.09
B(ZnAL2)=23.4
Medium: 0.2 M KNO3. H2A=3-Hydroxynaphthalene-1-carboxylic acid
---
Zn++ gl KNO3 25°C 0.15M U K1=5.177 B2=9.539 1988JJa (42459)2079
B3=12.90

Zn++ gl KNO3 25°C 0.10M U T K1=4.21 1988NSc (42460)2080
At 40 C, K1=4.02.

Zn++ gl alc/w 25°C var U T 1974DKa (42461)2081
K1=72.32/D+5.245
D=Dielectric constant of the 1-PrOH/H2O mixture. Also at 0 and 40 C

Zn++ gl diox/w 25°C 50% U K2=6.08 1966WRb (42462)2082
Medium: 50% dioxan, 0.1 M NaClO4

Zn++ gl NaNO3 20°C 0.10M U K1=5.30 B2=9.62 1960ANb (42463)2083
K3=3.30

Zn++ gl oth/un 25°C 0.0 U K1=5.75 B2=10.01 1957LUa (42464)2084

Zn++ gl KNO3 25°C 0.10M U K1=5.12 B2=9.42 1957SYa (42465)2085
****
C6H5NO2 HL Nicotinic acid CAS 59-67-6 (419)
3-Pyridine-carboxylic acid; C5H4N.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaCl 25°C 0.10M U K1=2.36 2001DSb (42655)2086

Zn++ gl KNO3 25°C 0.10M U K1=7.20 B2=14.06 1988ZMa (42656)2087
K3=5.90
****
C6H5NO3 HHL CAS 824-40-8 (878)
Pyridine-2-carboxylic acid N-oxide (Picolinic acid N-oxide); C5H4N(O)COO

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M U T K1=3.25 B2=6.40 1981RRb (42828)2088
Temp range 25-50. K1 at 50 C = 3.00; K2 at 50 C = 2.85
****
C6H5NO4 H2L 3-Nitrocatechol CAS 6665-98-1 (2685)
1,2-Dihydroxy-3-nitrobenzene; O2N.C6H3(OH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.10M M K1=8.64 B2=15.80 1985HAb (42850)2089
****
C6H5NO4 H2L 4-Nitrocatechol CAS 3316-09-4 (890)
1,2-Dihydroxy-4-nitrobenzene; O2N.C6H3(OH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C M K1=8.10 B2=13.99 1989DAa (42897)2090
K(ZnA+L)=6.75
B(ZnAL)=14.29
H2A: 8-hydroxyquinoline-5-sulfonic acid.

Zn++ gl KNO3 35°C 0.20M U M K1=6.52 B2=11.79 1989RVa (42898)2091
K(ZnA+L)=6.09
A=bis(imidazol-2-yl)methane

Zn++ gl NaClO4 30°C 0.05M U TIH K1=10.07 B2=18.64 1986NDa (42899)2092
I=0.1, 40 C: K1=7.74, B2=14.73; 50 C: K1=7.63, B2=14.40
I=0.1, 30 C:K1= 8.47, B2=15.89; I=0.2, 30 C:K1= 8.27, B2=15.46

Zn++ gl KCl 25°C 0.10M M K1=8.25 B2=14.85 1984HAb (42900)2093

Zn++ gl KNO3 30°C 0.10M U K1=8.20 B2=15.00 1964MTb (42901)2094
****
C6H5NO4 HL CAS 78901-24-3 (885)

4-Hydroxypyridine-2-carboxylic acid N-oxide; C5H3N(O)(OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	30°C	0.10M	U	T	K1=3.68 B2=6.38	1982RRa (42967)	2095

****

C6H5N2O2Cl L CAS 635-22-3 (763)
3-Nitro-4-chloroaniline; H2N.C6H3(Cl)(NO2)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	non-aq	25°C	100%	U	M	K(ZnCl2+L)=1.37 K(ZnBr2+L)=1.52 K(ZnI2+L)=1.39	1965SSe (42976)	2096

Medium: acetone

****

C6H5N3 L Azabenzimidazol CAS 273-21-2 (2033)
4-Azabenzimidazole, 1H-Imidazo[4,5-b]pyridine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=1.11 B2=2.78	1981LMb (42986)	2097

****

C6H5O2Cl H2L 4-Cl-Catechol CAS 2138-22-9 (1656)
1,2-Dihydroxy-4-chlorobenzene; Cl.C6H3(OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	30°C	0.10M	U		K1=8.63 B2=15.45	1964MTb (43080)	2098

****

C6H5O4Br L CAS 40838-32-2 (1084)
6-Bromo-5-hydroxy-2-(hydroxymethyl)-4H-pyran-4-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	KCl	25°C	0.10M	M	I	K1=4.59	1985PEe (43103)	2099

****

C6H5O4Cl HL Chlorokojic aci (3086)
3-Chloro-5-hydroxy-2-hydroxymethyl-4-pyrone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.50M	U		K1=4.88	1967CBb (43124)	2100
Zn++	gl	diox/w	25°C	75%	U		K1=9.74 B2=17.75	1960KFc (43125)	2101

****

C6H5O4I HL Iodokojic acid CAS 40838-33-3 (3681)
3-Iodo-5-hydroxy-2-hydroxymethyl-4-pyrone;

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.50M U        K1=4.92        1967CBb (43142)2102
*************************************************************************
C6H5O4I                 L                        (1085)
6-Iodo-5-hydroxy-2-hydroxymethyl-4H-pyran-4-one;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       sp  KCl    25°C 0.10M M  I     K1=4.67        1985PEe (43146)2103
*************************************************************************
C6H6NBr                 L    3-Bromoaniline   CAS 591-19-5  (758)
3-Bromoaniline; H2N.C6H4.Br
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       sp  diox/w 25°C 100%  U                        1976BSa (43174)2104
                                        K(ZnCl2+L)=1.49
*************************************************************************
C6H6NBr                 L    4-Bromoaniline   CAS 106-40-1  (757)
4-Bromoaniline; H2N.C6H4.Br
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       sp  diox/w 25°C 100%  U T H                    1976BSa (43182)2105
                                        K(ZnCl2+L)=1.80
At 10-50 C. DH = -26.3 kJ mol-1. DS = -53.9 J K-1 mol-1.
*************************************************************************
C6H6NBr                 L                        (8782)
5-Bromo-2-methylpyridine;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.50M C        K1=0.00        2002KSb (43189)2106
*************************************************************************
C6H6NCl                 L                    CAS 10445-91-7  (8781)
4-(Chloromethyl)pyridine;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.50M C        K1=1.01        2002KSb (43205)2107
*************************************************************************
C6H6NO6P              H2L                    CAS 330-13-2  (5865)
4-Nitrophenylphosphoric acid; NO2.C6H4.O.PO.(OH)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  NaCl   25°C 0.15M U        K1=1.758       1990KLb (43238)2108
-------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C        K1=1.73        1988MSa (43239)2109
```

****

C6H6N2O L Isonicotinamide CAS 1453-82-3 (1949)
Isonicotinamide, Pyridine-4-carboxylic acid amide; C5H4N.CO.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=1.00	B2=1.40	1974WAb (43256)	2110

****

C6H6N2O HL CAS 873-69-8 (1258)
Pyridine-2-aldoxime; C5H4N.CH:NOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaCl	25°C	0.10M	C				2003SSa (43283)	2111
							B(0,1,1)=1.902			
							B(-1,1,1)=-4.81			
							B(-1,1,2)=-2.50			
							B(-2,1,2)=-9.440			

B(p,q,r): pH+qM+rHL=HpMq(HL)r. B(-2,2,2)=-6.76, B(-3,2,2)=-13.296,
B(-4,2,2)=-22.66, B(-3,1,3)=-17.09.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.30M	U		K1=5.8	B2=11.10	1966BEa (43284)	2112
Zn++	gl	KNO3	24°C	0.10M	U		K1=5.5	B2=10.80	1962BEa (43285)	2113

****

C6H6N2O L Acetamidopyrid. CAS 1452-77-3 (2047)
Pyridine-2-carboxylic acid amide; C5H4N.CO.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=1.54	B2=2.67	1976WAa (43313)	2114

****

C6H6N2O L Nicotinamide CAS 98-92-0 (1473)
Pyridine-3-carboxylic acid amide, Vitamin PP, C5H4N.CO.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=0.78	B2=1.11	1981LRa (43332)	2115
Zn++	oth	none	0°C	?	U		K1=1.10	B2=1.85	1971KAc (43333)	2116

Method: freezing point depression

****

C6H6N2O2 HL Aminonicotinic CAS 5345-47-1 (903)
2-Aminopyridine-3-carboxylic acid; H2N.C5H4N.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	35°C	0.15M	U	T H	K1=2.78	1980SKb (43348)	2117

Temperature range is 25-45C. At 35C, DH1=-6.40 kJ mol-1;
DS1=32.51 J mol-1 K-1.

```
--------------------------------------------------------------------------------
Zn++       gl  diox/w 35°C  50%  U        K1=3.12        1980SKb (43349)2118
********************************************************************************
C6H6N2O2              HL                        (8281)
3-Hydroxy-2-amidocarboxypyridine, Hydroxypicolinamide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=5.62   B2=10.79  1990ARa (43368)2119
                                         K(ZnL2+L)=4.2
********************************************************************************
C6H6N2O2               L    m-Nitroaniline   CAS 99-09-2  (464)
3-Nitroaminobenzene; H2N.C6H4.NO2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U    M                   1965SSe (43382)2120
                                         K(ZnCl2+L)=1.69
                                         K(ZnBr2+L)=1.98
                                         K(ZnI2+L)=1.88
Medium: acetone
********************************************************************************
C6H6N2O2               L    p-Nitroaniline   CAS 100-01-6  (465)
4-Nitroaminobenzene; H2N.C6H4.NO2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U    M                   1965SSe (43399)2121
                                         K(ZnCl2+L)=0.74
                                         K(ZnBr2+L)=0.95
                                         K(ZnI2+L)=0.78
Medium: acetone
********************************************************************************
C6H6N2O2               HL    Cupferron        CAS 135-20-6  (637)
N-Nitrosophenylhydroxylamine; C6H5.N(OH).NO
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       dis NaClO4 20°C 0.10M U    M                   1970VAa (43416)2122
                                         K(ZnL2+py)=1.23
                                         K(ZnL2+2py)=1.90
********************************************************************************
C6H6N2O3               HL                        CAS 99-57-0  (469)
2-Amino-4-nitrophenol; H2N.C6H3(OH)(NO2)
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  50%  U        K1=3.64   B2=6.13   1966VMa (43443)2123
Medium: 50% dioxan, 0.1 M NaClO4
********************************************************************************
```

C6H6N2O4 L Methyl orotate CAS 6153-44-2 (2612)
2,4-Dihydroxypyrimidine-6-caboxylic acid methyl ether

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaCl	19°C	0.15M	U		K1=3.71		1979DZc	(43457)2124

****

C6H6N2O4 HL Methylorotic CAS 706-36-2 (2611)
3N-Methyl-2,4-dihydroxypyrimidine-6-caboxylic acid, methylorotic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaCl	20°C	0.15M	U		K1=6.20		1979DZc	(43465)2125
							K(Zn+HL)=2.36			

****

C6H6N4 L Biimidazole CAS 492-98-8 (1007)
2,2'-Biimidazole; C3H3N2-C3H3N2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	C		K1=3.48	B2= 6.54	1998TSa	(43481)2126

****

C6H6N4 L 9-Methylpurine CAS 20427-22-9 (2480)
9-Methylpurine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	1.00M	U		K1=0.9		1983ALa	(43490)2127

****

C6H6O2 H2L Catechol CAS 120-80-9 (534)
1,2-Dihydroxybenzene, pyrocatechol; HO.C6H4.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	30°C	0.10M	U		K1=8.32		1994RSa	(43680)2128
Zn++	gl	NaClO4	25°C	0.20M	M	M	K1=9.702	B2=18.51	1994VBc	(43681)2129
							B(Zn(ala)L)=14.482			
							B(Zn(phe)L)=14.234			
							B(Zn(tyr)L)=14.389			
							B(Zn(trp)L)=14.681			
B(Zn(gly-gly)L)=13.084, B(Zn(gly-ala)L)=13.121.										
Zn++	gl	KNO3	25°C	0.10M	C	M	K1=9.15	B2=16.40	1989DAa	(43682)2130
							K(ZnA+L)=8.10			
							B(ZnAL)=15.64			
H2A: 8-hydroxyquinoline-5-sulfonic acid.										
Zn++	gl	KNO3	35°C	0.20M	U	M	K1=8.11	B2=14.57	1989RVa	(43683)2131
							K(ZnA+L)=7.90			

A=bis(imidazol-2-yl)methane

Zn++ gl KNO3 35°C 0.10M U M K1=5.05 1989SRe (43684)2132
K(ZnL+Cytosine)=5.09

Zn++ gl NaClO4 30°C 0.10M M TIH K1=8.48 B2=15.51 1986DNa (43685)2133
Data for 0.05-0.20 M NaClO4. Extrap. to I=0.0, K1=8.96, B2=16.10.
Data for 30-50 C. DH(K1)=-25.5 kJ mol-1.

Zn++ gl KNO3 35°C 0.10M C 1985RRh (43686)2134
K(Zn+HL)=5.08

Zn++ gl KCl 25°C 0.20M C M 1979KGa (43687)2135
B(ZnHLA)=28.69
B(ZnLA)=18.26
H2A=dopamine.

Zn++ gl NaClO4 30°C 0.20M U M 1974MJa (43688)2136
K(Zn(His)+L)=7.24

Zn++ gl NaClO4 25°C 0.10M U K1=9.90 B2=17.57 1971GSb (43689)2137

Zn++ gl KNO3 25°C 1.0M U 1968TMa (43690)2138
K(Zn+H2L=ZnL+2H)=-12.744
K(ZnL+H2L=ZnL2+2H)=-14.315

Zn++ gl NaClO4 30°C 0.10M U K1=9.08 B2=16.32 1966APb (43691)2139

Zn++ gl KCl 25°C 0.10M U K1=9.50 B2=17.20 1966JNa (43692)2140

Zn++ gl KNO3 30°C 0.10M U K1=8.46 B2=15.24 1963MNc (43693)2141
****
C6H6O2S HL (3683)
2-Acetyl-3-hydroxythiophene; C4H2S(CO.CH3)OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 50% U M K1=4.86 1967SIb (43905)2142
K(Zn(bpy)+L)=4.86
Medium: 50% dioxan, 0.1 M NaClO4

Zn++ sp diox/w 25°C 10% U K1=3.73 1966PSb (43906)2143
Medium: 50% dioxan, 0.1 M NaClO4. By glass electrode, K1=3.58
****
C6H6O2S HL Thiomaltol CAS 23060-85-7 (4359)
2-Methyl-3-hydroxy-4-thiopyrone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w ? 75% U K1=12.74 B2=23.69 1973UMa (43910)2144

Medium: 75% v/v dioxan, 0.01 M

****

C6H6O3 H3L Pyrogallol CAS 87-66-1 (696)
1,2,3-Trihydroxybenzene; C6H3(OH)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	30°C	0.10M	M	TIH			1986DNa	(43943)2145
							K(Zn+HL)=8.41			
							K(Zn+2HL)=14.87			

Data for 0.05-0.20 M NaClO4. Extrap. to I=0.0, K(Zn+HL)=8.94,
K(Zn+2HL)=15.89. Data for 30-50 C. DH(Zn+HL)=-8.49 kJ mol-1.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	30°C	0.20M	U	M			1974MJa	(43944)2146
							K(Zn(His)+L)=6.84			

****

C6H6O3 HL Maltol CAS 118-71-8 (2442)
3-Hydroxy-2-methyl-4H-pyran-4-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	sp	KCl	25°C	0.10M	M	I	K1=5.72		1985PEe	(44064)2147
Zn++	gl	NaClO4	25°C	2.00M	U	H	K1=5.56	B2=10.31	1978GHa	(44065)2148
							K3=2.25			

DH(K1)=-10.91 kJ mol-1, DH(K2)=-13.43, DH(K3)=-30.18

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaNO3	25°C	2.00M	C	T H	K1=5.36	B2=9.94	1975GDa	(44066)2149
							K3=2.22			

At 20 C, K1=5.40,K2=4.62,K3=2.33; 30 C: 5.34,4.57,2.19; 40 C:5.29,4.53,2.18;
DH(K1)=-9.2 kJ mol-1, DS=71.9 J K-1 mol-1; DH(K2)=-7.9,DS=60.6; DH(K3)=-12.1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.50M	U		K1=5.53	B2=10.20	1967CBb	(44067)2150

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	30°C	50%	U		K1=8.24	B2=14.84	1957CWa	(44068)2151

****

C6H6O3 HL Allomaltol CAS 644-46-2 (2688)
5-Hydroxy-2-methyl-4H-pyran-4-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	sp	KCl	25°C	0.10M	M	I	K1=5.38		1985PEe	(44124)2152

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.50M	U		K1=5.28	B2=9.57	1967CBb	(44125)2153

****

C6H6O4 HL Kojic acid CAS 501-30-4 (1800)
5-Hydroxy-2-(hydroxymethyl)-4H-pyran-4-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo

---

```
Zn++       sp  KCl    25°C 0.10M M  I     K1=5.14        1985PEe (44170)2154
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 2.00M U   H    K1=5.01   B2=9.20   1978GHa (44171)2155
                                          K3=2.58
DH(K1)=-8.69 kJ mol-1, DH(K2)=-10.81, DH(K3)=-28.92
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 2.00M C T H    K1=5.03   B2=9.34   1975GHa (44172)2156
                                          B3=12.4
DH(K1)=-7.9 kJ mol-1; DS(K1)=170.0 J K-1 mol-1; DH(K2)=-6.3, DS(K2)=59.8.
At 20 C, K1=5.04,  B2=9.3, B3=12.0; at 40 C, K1=4.95, B2=9.11, B3=11.75
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.50M U        K1=4.98   B2=8.95   1967CBb (44173)2157
--------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C 75v%  U        K1=10.38  B2=18.96  1960KFc (44174)2158
--------------------------------------------------------------------------------
Zn++       EMF KCl    21°C 0.10M U        K1=4.9    B2=9.1    1959OKb (44175)2159
Method: H electrode
--------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  50%  U        K1=7.4    B2=13.2   1954BFa (44176)2160
********************************************************************************
C6H6O5S               H2L                        (8129)
2,3-Dihydroxybenzenesulfonic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M   K1=9.00   B2=15.95  1989DAa (44270)2161
                                          K(ZnA+L)=7.72
                                          B(ZnAL)=15.26
H2A: 8-hydroxyquinoline-5-sulfonic acid.
********************************************************************************
C6H6O5S               H3L                      CAS 7134-09-0  (3687)
3,4-Dihydroxybenzenesulfonic acid; (HO)2.C6H3.SO3H
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   30°C 0.10M U        K1=9.40   B2=16.60  1963MNc (44276)2162
********************************************************************************
C6H6O8S2              H4L    Tiron           CAS 149-45-1  (104)
4,5-Dihydroxybenzene-1,3-disulfonic acid; (HO)2.C6H2(SO3H)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M   K1=8.62   B2=15.02  1989DAa (44376)2163
                                          K(ZnA+L)=6.95
                                          B(ZnAL)=14.45
H2A: 8-hydroxyquinoline-5-sulfonic acid.
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 30°C 0.05M U TIH    K1=10.07  B2=18.64  1986NDa (44377)2164
I=0.1, 40 C: K1= 9.83, B2=18.00; 50 C: K1= 9.61, B2=17.70
I=0.1, 30 C:K1= 9.94, B2=18.33; I=0.2, 30 C:K1= 9.66, B2=17.93
```

```
------------------------------------------------------------------------------
Zn++       oth KNO3   25°C 0.10M U        K1=10.30       1984BSa (44378)2165
By ultrafiltration
------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M   K1=10.14  B2=18.22  1983OZa (44379)2166
                                          B(ZnHL)=15.84
                                          K(ZnH-1L2)=6.56
                                          B(ZnL(bpy))=16.41
                                          K(ZnH-1L(bpy))=5.59
------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.50M C    M   K1=9.14   B2=16.90  1977LMa (44380)2167
------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U        K1=10.41       1964PCa (44381)2168
                                          K(Zn+HL)=3.30
------------------------------------------------------------------------------
Zn++       gl  KNO3   30°C 0.10M U        K1=10.19  B2=18.52  1963MNc (44382)2169
------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C  1.0M U        K1=9.00   B2=16.91  1960NAf (44383)2170
------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C  0.0  U        K1=11.68       1959NAa (44384)2171
------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=11.07       1958CGa (44385)2172
                                          K(ZnOHL+H)=8.0
------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C .029M U  I     K1=10.58       1958NAa (44386)2173
                                          K(ZnLOH+H)=3.73
------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.05M U        K2=17.9        1958NAa (44387)2174
******************************************************************************
C6H6O9                H4L    Ditartronic ac     (8108)
Di(2-Propane-1,3-dioic acid)ether;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C        K1=5.62        1984MMg (44531)2175
                                          K(ZnL+H)=2.94
******************************************************************************
C6H7N                   L    Picoline         CAS 109-06-8  (320)
2-Methylpyridine; C5H4N.CH3
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.50M C        K1=0.22        2002KSb (44576)2176
------------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U TIH                    1982CFa (44577)2177
                                          K(ZnA+L)=2.75
Medium: BuCl. A=tetraphenylporphyrin. Also in PhCl
------------------------------------------------------------------------------
Zn++       nmr non-aq 25°C 100%  U   HM   K2=4.47        1980WBa (44578)2178
Medium: toluene. DH(K2)=-47 kJ mol-1.
```

Zn++ gl NaClO4 25°C 0.10M U M K1=<1 1964KSb (44579)2179
Ternary complexes with dimethyldithiocarbamic acid, oxine, and substituted oxines
****
C6H7N L beta-Picoline CAS 108-99-6 (324)
3-Methylpyridine; C5H4N.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaNO3 25°C 0.50M C K1=1.24 2002KSb (44656)2180

Zn++ cal non-aq 25°C 100% U H K1=4.6 B2=8.1 1994KOa (44657)2181
B3=10.6
B4=12.1
Medium: CH3CN. DH(K1)=-31.4, DH(B2)=-56, DH(B3)=-74, DH(B4)=-90 kJ mol-1.

Zn++ cal non-aq 25°C 100% U H K1=1.16 B2=1.30 1993KOa (44658)2182
Medium: dimethylformamide, 0.1 M Et4NClO4. DH(K1)=-14.4, DH(B2)=-30.3 kJ m-1

Zn++ sp non-aq 25°C 100% U M 1984MWa (44659)2183
K(ZnA+L)=4.35
In toluene, A=21H,23H-Porphine-5,10,15,20-Tetrakis(3-nitrophenyl)
Data also for many other Porphine analogues of A

Zn++ nmr non-aq 25°C 100% U HM 1980WBa (44660)2184
K(ZnA+L)=4.08
Medium: toluene. DH(K2)=-44.0 kJ mol-1.
A=5-(2'-(2"-phenylethyl)carbamylamino)-10,15,20-tetraphenylporphyrin.

Zn++ nmr non-aq 25°C 100% U HM 1980WBa (44661)2185
K(ZnA+L)=3.95
Medium: toluene. A=5-(2'-Methylcarbonylamino)-10,15,20-tetraphenylporphyrin.
DH=-39 kJ mol-1.

Zn++ gl KNO3 25°C 0.50M U K1=1.00 B2=2.15 1978LRb (44662)2186
B3=2.62
B4=3.73

Zn++ ISE NaClO4 30°C 0.10M U K1=1.23 B2=1.91 1966DKa (44663)2187
B3=2.18

Zn++ gl NaClO4 25°C 0.10M U K1=<1 1964KSb (44664)2188
****
C6H7N L gamma-Picoline CAS 108-89-4 (325)
4-Methylpyridine; C5H4N.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ cal non-aq 25°C 100% U H K1=3.9 B2=7.3 1994KOa (44770)2189

B3=10.3
B4=12.2
Medium: CH3CN. DH(K1)=-36, DH(B2)=-66, DH(B3)=-72, DH(B4)=-89 kJ mol-1.

Zn++ cal non-aq 25°C 100% U H K1=1.33 B2=1.57 1993KOa (44771)2190
Medium: dimethylformamide, 0.1 M Et4NClO4. DH(K1)=-14.4, DH(B2)=-30.3 kJ m-1

Zn++ sp non-aq 25°C 100% U M 1993SSc (44772)2191
K(ZnA+L)=3.669
K(ZnB+L)=4.039
K(ZnC+L)=4.332
Medium:Toluene. H2A:Octaethylporphyrin. H2B:t-Octaethylchlorin.
H2C:ttt-Octaethylisobacteriochlorin.

Zn++ vlt KCl 25°C 0.10M C K1=2.44 B2= 2.70 1987SPb (44773)2192
B3=4.60
Method: polarography.

Zn++ cal non-aq 30°C 100% U H 1976AGc (44774)2193
K(ZnA2+L)=2.13
K(ZnB2+L)=2.46
In benzene. A=dibutyldithiocarbamate; DH=-35.8 kJ mol-1; DS=-77 J K-1 mol-1.
B=dibenzyldithiocarbamate; DH=-35.8; DS=-73.

Zn++ EMF KNO3 25°C 1.00M U K1=1.46 B2=2.45 1969LWc (44775)2194
B3=2.72

Zn++ gl diox/w 25°C 50% U M K1=1.42 1967SIb (44776)2195
K(Zn(bpy)+L)=1.2
Medium: 50% dioxan, 0.1 M NaClO4. Ternary complexes with dimethyldithiocarb-
amic acid, oxine and substituted oxines

Zn++ ISE NaClO4 30°C 0.10M U K1=1.30 B2=2.11 1966DKa (44777)2196
B3=2.85

Zn++ gl NaClO4 25°C 0.10M U K1=1.40 1964KSb (44778)2197
****
C6H7N L Aniline CAS 62-53-3 (583)
Aminobenzene, aniline; C6H5.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ cal non-aq 25°C 100% C IH 2002LVa (44855)2198
K(ZnP+L)=2.88
K(ZnPL+L)=2.16
Medium: CCl4. ZnP: Zn(II)tetraphenylporphyrine. DH(ZnP+L)=-27.25 kJ mol-1,
DS=-36 J K-1 mol-1; DH(ZnPL+L)=-25.05, DS=-43. Data for related ligands.

Zn++ sp diox/w 25°C 100% U T H 1976BSa (44856)2199
K(ZnCl2+L)=2.38

At 10-50 C. DH = -27.6 kJ mol-1; DS = -45.9 J K-1 mol-1.

****

C6H7NO HL 2-Aminophenol CAS 95-55-6 (2868)
2-Amino-1-hydroxybenzene; HO.C6H4.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.20M	M	M	K1=4.945	B2= 8.86	1994VBc (44916)	2200
							B(Zn(ala)L)=9.952			
							B(Zn(phe)L)=9.504			
							B(Zn(tyr)L)=9.771			
							B(Zn(trp)L)=9.994			
B(Zn(gly-gly)L)=8.436, B(Zn(gly-ala)L)=8.446.										
Zn++	gl	diox/w	30°C	50%	U	M			1990DSc (44917)	2201
							B(ZnL(NTA))=5.50			
							B(ZnL(IMDA))=5.72			
Zn++	gl	diox/w	25°C	50%	U		K1=5.99	B2=10.95	1952CFa (44918)	2202

****

C6H7NO L CAS 586-98-1 (3094)
2-Hydroxymethylpyridine (2-pyridylmethanol); C5H4N.CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=1.9		1965MTa (44960)	2203

****

C6H7NO L Pyridylcarbinol CAS 100-55-0 (2036)
3-(Hydroxymethyl)azine; C5H4N.CH2OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=1.07	B2=1.72	1981LRa (44980)	2204

****

C6H7NO L CAS 7295-76-3 (3095)
3-Methoxypyridine; C5H4N.OCH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	ISE	NaClO4	30°C	0.10M	U		K1=0.90	B2=1.40	1966DKa (44990)	2205
							B3=1.54			

****

C6H7NO L CAS 586-95-8 (1476)
4-(Hydroxymethyl)pyridine; C5H4N.CH2OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=1.18	B2=1.93	1987KLb (45003)	2206

****

C6H7NO L CAS 620-08-6 (3096)

4-Methoxypyridine; C5H4N.OCH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	ISE	NaClO4	30°C	0.10M	U		K1=1.53 B2=2.31 B3=3.08	1966DKa (45014)	2207

****

C6H7NO2 HL CAS 19365-01-6 (2311)
3-Hydroxy-1-methylpyridin-4(1H)-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	37°C	0.15M	C	M		1980SHb (45038)	2208

B(ZnL(gly))=11.06; B(ZnL(his))=12.59; B(ZnL(Hhis))=17.99.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	37°C	0.15M	C		K1=6.68 B2=12.31 K3=2.1	1979SPd (45039)	2209

****

C6H7NO2 HL CAS 19167-98-7 (5591)
Pyrrole-1-ethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	C	M	K1=1.92 K(Zn(phen)+L)=1.85	1985BSd (45054)	2210

Medium: 50% v/v dioxan/H2O, 0.1 M NaClO4

****

C6H7NO4S H2L CAS 3343-41-7 (3711)
1-Hydroxy-1-(2'-pyridyl)methanesulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	U		K1=5.08 B2=9.29	1964BGa (45075)	2211

****

C6H7NO4S H2L CAS 4812-14-0 (3712)
1-Hydroxy-1-(3'-pyridyl)methanesulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	U		K1=7.58 B2=14.29	1964BGa (45080)	2212

****

C6H7NS HL CAS 137-07-5 (3098)
2-Aminothiophenol (o-aminothiophenol); H2N.C6H4.SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U		K1=7.33 B2=14.10	1952FCa (45087)	2213

****

C6H7N3O L CAS 1452-63-7 (3097)
Pyridine-2-carboxylic acid hydrazide; C5H4N.CO.NH.NH2

```
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C 0.01M U        K1=8.4    B2=15.6   1956ARd (45098)2214
*******************************************************************************
C6H7N3O                 L    Isonicotinic hy  CAS 54-85-3  (1267)
Pyridine-4-carboxylic acid hydrazide; C5H4N.CO.NH.NH2
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  NaCl   37°C 0.15M C    M   K1=5.6         1983CMa (45120)2215
                                          B(ZnHL)=12.34
                                          B(Zn(his)L)=11.35
                                          B(ZnH(his)L)=18.83
-------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C 0.01M U        K1=5.4         1956ARd (45121)2216
*******************************************************************************
C6H7N3O2I2             HL                      (7181)
2,5-Diiodo-histidine;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.50M C        K1=3.97        1994WCa (45137)2217
                                          B(ZnH-1L)=-2.53
                                          B(ZnH-1L2)=2.00
                                          B(ZnH-2L2)=-4.72
                                          B(ZnH-3L2)=-16.02
*******************************************************************************
C6H7O4P               H2L                    CAS 701-64-4  (5866)
Phenyl phosphoric acid; C6H5O.PO(OH)2
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  NaCl   25°C 0.15M U        K1=2.146       1990KLb (45223)2218
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C        K1=2.07        1988MSa (45224)2219
*******************************************************************************
C6H8NO4P              H2L                     (3713)
2-Pyridylmethanephosphoric acid (1'-picolyl phosphate)
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=2.83        1968MTd (45244)2220
*******************************************************************************
C6H8N2                  L    2-Picolylamine   CAS 29722-36-9  (502)
2-(Aminomethyl)pyridine; C5H4N.CH2NH2
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       cal NaCl   25°C 0.15M C   H    K1=5.295  B2=9.640  1987ENa (45326)2221
```

B3=12.36
B(ZnH-2L)=-13.57
B(ZnH-1L2)=-0.32
DH(K1)=-25.8 kJ mol-1, DS=15 J K-1 mol-1; DH(B2)=-51.9, DS=11; DH(B3)=-84, DS=-43; DH(ZnH-2L)=85, DS=24; DH(ZnH-1L2)=24, DS=-37

Zn++ EMF NaNO3 20°C 0.10M U K1=5.36 B2=9.60 1971ANa (45327)2222
K3=2.99

Zn++ gl KNO3 25°C 0.50M U K1=5.37 B2=9.84 1971GEa (45328)2223
K3=2.80

Zn++ vlt diox/w 25°C 50% U H B2=9.84 1966WRb (45329)2224
Medium: 50% dioxan, 0.1 M KNO3. By calorimetry, DH(B2)=-51.8 kJ mol-1, DS=13.8 J K-1 mol-1

Zn++ gl KNO3 25°C 0.10M U K1=5.2 1964LMb (45330)2225

Zn++ gl KNO3 25°C 0.10M U K1=5.2 1964LMb (45331)2226

Zn++ gl oth/un 20°C ->0 U T H K1=5.41 B2=9.85 1959GFa (45332)2227
K3=8.12
DH(K1)=-28.5 kJ mol-1,DS=4; DH(K2)=-30.5,DS=21; DH(K3)=-24.5,DS=21
10 C: K1=5.53,K2=4.61,K3=3.29; 30 C: 5.17,4.21,3.07; 40 C: 5.04,4.09,2.83

****

C6H8N2 L CAS 2851-95-8 (4349)
2-Methyl-1-vinylimidazole;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl KNO3 25°C 0.50M C K1=1.55 B2= 3.60 2000KGa (45372)2228
B3=5.50
B4=6.50

****

C6H8N2O2 HL CAS 1074-59-5 (3099)
3-(4-Imidazolyl)propanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl KNO3 25°C 0.20M U K1=3.15 1963CCb (45392)2229

****

C6H8N2O3S HL CAS 20349-92-2 (4399)
d-Tetranorbiotin;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl diox/w 25°C 50% U K1=1.92 1969SMc (45404)2230
K(ZnL+bpy)=1.87
Medium: 50% dioxan, 0.1 M NaClO4

****

C6H8N2O4 H2L (3100)
Cyanomethyliminodiethanoic acid; NC.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	20°C	0.10M	U		K1=5.80 B2=9.51	1955SAa	(45411)2231

****

C6H8N2S HL CAS 22325-27-5 (8521)
4,6-Dimethyl-2-mercaptopyrimidine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	35°C	0.10M	C	M	K1=4.35	1996RRa	(45425)2232
							B(ZnAL)=7.84		
							B(ZnBL)=7.71		
							B(Zn(bpy)L)=8.84		
							B(Zn(phen)L)=10.63		

B(Zn(en)L)=8.55. H2A is oxalic acid, H2B is malonic acid.

****

C6H8N3O2I HL (7180)
5-Monoiodo-histidine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.50M	C		K1=5.22 B2=9.55	1994WCa	(45430)2233
							B(ZnH-1L2)=1.05		
							B(ZnH-2L2)=-9.14		

****

C6H8N4B- L (7237)
Bis(pyrazol-1-yl)borate; (C3H3N2)2BH2-

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	dis	non-aq	25°C	100%	U			1996KSa	(45436)2234
							K(Zn+2HL=ZnL2(org)+2H)=1.15		

By solvent extraction into CHCl3

****

C6H8N4O2S L CAS 42026-60-8 (8288)
6-Amino-3-methyl-2-(methylthio)-5-nitroso-4(3H)-pyrimidinone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.1M	U	IH	K1=5.54 B2=11.04	1984MMh	(45440)2235

Data for I=0.01-0.20 M and 25-40 C. At I=0.0 M, K1=6.41, K2=5.95.
DH(K1)=-15.7 kJ mol-1, DS(K1)=59.7 J K-1 mol-1; DH(K2)=-10.3, DS(K2)=72.2

****

C6H8O2 HL CAS 765-70-8 (8322)
3-Methylcyclopentane-1,2-dione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

```
------------------------------------------------------------------------------
Zn++       gl  alc/w  30°C   5%  U    M                 1995RRb (45449)2236
                                       K(ZnA+L)=7.21
                                       B(ZnAL)=15.07
Medium: 5% v/v EtOH/H2O, 0.10 M KNO3. H2A is thioglycolic acid.
------------------------------------------------------------------------------
Zn++       gl  KNO3   30°C 0.10M U   HM   K1=4.38   B2= 8.23  1994RSa (45450)2237
                                       B(Zn(ala)L)=8.92
                                       B(Zn(val)L)=8.63
                                       B(Zn(en)L)=9.82
                                       B(Zn(bpy)L)=9.28
DH(K1)=-18.7 kJ mol-1, DS=22.1 J K-1 mol-1. B(ZnAL)=9.09, B(ZnBL)=12.14,
K(Zn(bpy)+L)=4.02, K(ZnA+L)=3.75. H2A=oxalic acid, H2B=catechol.
******************************************************************************
C6H8O4                H2L                      CAS 2583-25-7  (958)
2-Allylpropanedioic acid; HOOC.CH(CH2.CH:CH2).COOH
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=2.45        1975IPa (45460)2238
******************************************************************************
C6H8O4                H2L                      CAS 5445-51-2  (69)
Cyclobutane-1,1-dicarboxylic acid; C4H6(COOH)2
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=2.53   B2=4.01   1969PJb (45498)2239
------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=2.48        1966OCb (45499)2240
******************************************************************************
C6H8O4Se              H2L                        (3691)
cis-Tetrahydroselenophene-2,5-dicarboxylic acid; C4H6Se(COOH)2
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=2.4         1968SNa (45526)2241
******************************************************************************
C6H8O6                H3L    Tricarballylic   CAS 99-14-9  (1620)
1,2,3-Propanetricarboxylic acid; HOOC.CH2.CH(COOH).CH2.COOH
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  NaClO4 20°C 0.10M U        K1=2.43        1964COb (45552)2242
                                       K(Zn+HL)=1.61
                                       K(Zn+H2L)=0.94
******************************************************************************
C6H8O6                H2L    Ascorbic acid    CAS 50-81-7  (285)
Ascorbic acid (Vitamin C);
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
```

```
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 20°C 1.00M M    M                 1985MOa (45608)2243
                                        B(ZnHLTartrate)=7.19
--------------------------------------------------------------------------------
Zn++       EMF NaClO4 20°C 1.00M U       K1=4.34   B2=7.50   1981MOc (45609)2244
Ascorbic acid treated as HL. Antimony electrode used
--------------------------------------------------------------------------------
Zn++       gl  mixed  25°C  80%  U                     1980KKd (45610)2245
                                        K(Zn+HL)=2.2
Medium: 80% DMF
********************************************************************************
C6H8O6S               H3L                    CAS 99-68-3  (3692)
(Carboxymethylthio)butanedioic acid; HOOC.CH(S.CH2.COOH).CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   20°C 0.10M U       K1=3.19        1977CAd (45680)2246
                                        K(Zn+HL)=2.42
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.05M M       K1=3.50        1975DPb (45681)2247
********************************************************************************
C6H8O7                H3L    Citric acid      CAS 77-92-9  (95)
2-Hydroxypropane-1,2,3-tricarboxylic acid; HOOCCH2.CH(OH)(COOH).CH2COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    37°C 0.15M C       K1=4.55   B2=6.87   1991CCa (45899)2248
                                        B(ZnHL)=8.41
                                        B(ZnHL2)=12.03
                                        B(ZnH-1L)=-1.92
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U T H    K1=5.02   B2=6.76   1986CRd (45900)2249
                                        B(ZnHL)=8.71
                                        B(Zn2H-2L2)=-2.85
At 10 C: K1=4.99, B2=6.85, B(ZnHL)=8.73, B(Zn2H-1L2)=-3.18; at 45 C:K1=5.23,
B2=7.60, B(ZnHL)=8.83, B(Zn2H-1L2)=-1.7. DH(K1)=8 kJ mol-1; DH(B2)=27
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 30°C 0.10M U       K1=4.79        1981MSa (45901)2250
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M C    M   K1=4.72   B2=7.36   1978BMa (45902)2251
                                        B(ZnHL)=8.44
                                        B(Zn2H-2L2)=-2.21
                                        B(ZnLA)=12.36
                                        B(ZnH2LA)=24.0
H2A=cysteine
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U    M   K1=4.83        1978DOa (45903)2252
                                        B(ZnHL)=8.43
B(ZnL(bpy))=9.61
--------------------------------------------------------------------------------
```

```
Zn++       gl  KNO3   25°C 0.10M C        K1=4.83        1977DOb (45904)2253
                                         B(ZnHL)=8.43
                                         B(Zn2H-2L2)=-2.94
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M C        K1=5.58        1977RWc (45905)2254
                                         B(ZnH-1L)=-0.19
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=5.10        1975FCc (45906)2255
                                         B(ZnHL)=8.98
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U    M   K1=4.87        1974RMa (45907)2256
-------------------------------------------------------------------------------
Zn++       nmr oth/un 32°C 0.50M U                       1973HAb (45908)2257
                                         K(Zn+HL)=2.42
35Cl probe
-------------------------------------------------------------------------------
Zn++       oth KNO3   25°C 0.70M U                       1970BCa (45909)2258
                                         K(Zn+H3L=ZnH2L+H)=-1.38
                                         K(ZnH2L=ZnL+2H)=-8.48
Method: zone electrophoresis
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 20°C 0.10M U        K1=4.98        1964COb (45910)2259
                                         K(Zn+HL)=2.98
                                         K(Zn+H2L)=1.25
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 33°C 0.25M U                       1961PPa (45911)2260
                                         K(Zn+H3L=ZnHL+2H)=-4.2
                                         K(ZnL+H)=4.3
                                         K(ZnH-1L+H)=7.7
-------------------------------------------------------------------------------
Zn++       ix  oth/un 25°C 0.16M U        K1=4.71        1960LWa (45912)2261
-------------------------------------------------------------------------------
Zn++       ISE oth/un 23°C    ?  U                       1959KVa (45913)2262
                                         B(Zn(OH)L)=10.92
-------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.15M U        K1=4.85        1959LLa (45914)2263
                                         K(Zn+HL)=2.96
-------------------------------------------------------------------------------
Zn++       oth KCl    19°C 0.10M U        K1=4.6         1959OKa (45915)2264
                                         K(Zn+HL)=3.0
                                         K(Zn+H-1L)=7.5
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C  2.0M U        K1=4.25        1958MSb (45916)2265
                                         K(Zn+H-1L)=7.44
-------------------------------------------------------------------------------
Zn++       ix  oth/un 25°C 0.16M U        K1=4.71        1958SLb (45917)2266
-------------------------------------------------------------------------------
Zn++       ix  oth/un   ?     ?  U        K1=3.55        1957KPb (45918)2267
-------------------------------------------------------------------------------
Zn++       sol oth/un   ?     ?  U                       1956VTa (45919)2268
```

```
                                        Zn(Zn(OH)2+L=ZnOHL+OH)=9.4
--------------------------------------------------------------------------------
Zn++       oth oth/un 25°C 0.05M U                        1952SUc (45920)2269
                                        K(Zn+H3L=ZnHL+2H)=-3.66
--------------------------------------------------------------------------------
Zn++       vlt oth/un 25°C 0.30M U                        1951MEa (45921)2270
                                        K(ZnL+OH)=5.5
Medium: Na3C6H5O7
--------------------------------------------------------------------------------
Zn++       vlt oth/un 25°C 0.20M U                        1950MEb (45922)2271
                                        K(ZnL+OH)=5.5
********************************************************************************
C6H8O7P2              H3L                      CAS 101378-64-7  (7666)
Phenyldiphosphoric acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M M        K1=4.06        1999SSa (46340)2272
********************************************************************************
C6H9NO6               H3L                      CAS 41035-84-1  (4367)
N-Carboxymethyl-L-aspartic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U   H    K1=8.60   B2=11.65  2002KNb (46370)2273
                                        B(ZnHL)=12.77
for I=1.0 M: K1=7.49; B2=10.03; B(ZnHL)=12.40
Also data for I=0.5 M
********************************************************************************
C6H9NO6               H3L    NTA               CAS 139-13-9  (191)
Nitrilotriethanoic acid; N(CH2.COOH)3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M M        K1=10.05       1996KSc (46558)2274
--------------------------------------------------------------------------------
Zn++       cal KNO3   25°C 1.00M U   H                   1995VOa (46559)2275
DH(K1)=-6.4 kJ mol-1, DS=170 J K-1 mol-1; DH(B2)=-20.8, DS=198
--------------------------------------------------------------------------------
Zn++       oth NaClO4 30°C 0.10M C        K1=10.66       1991TSc (46560)2276
Method: electrophoresis. Medium: pH 5.8.
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M   K1=10.66       1990DAb (46561)2277
                                        K(ZnL+A)=3.58
                                        B(ZnLA)=12.00
H2A: salicylaldoxime
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M   K1=10.66       1990DAc (46562)2278
                                        K(ZnL+A)=3.47
                                        B(ZnAL)=14.13
```

HL: benzohydroxamic acid

Zn++ ISE KCl 25°C 1.0M U K1=9.30 1990TKa (46563)2279

The same measured by polarography: K1=9.38

Zn++ vlt KCl 25°C 1.0M U 1990TKa (46564)2280

K(ZnL+L)=3.18

Zn++ oth NaClO4 35°C 0.10M C K1=10.59 1986SYa (46565)2281

Method: paper electrophoresis. Medium pH 8.5.

Zn++ oth NaClO4 35°C 0.10M C M K1=10.59 1985SGc (46566)2282

K(ZnL+his)=3.94

Method: paper electrophoresis. Medium pH 8.5.

Zn++ oth NaClO4 35°C 0.10M U K1=10.59 1984SYa (46567)2283

Method: paper electrophoresis

Zn++ gl NaClO4 25°C 1.0M U 1982BCb (46568)2284

*K(ZnL(H2O))=-9.18

Zn++ gl NaNO3 25°C 0.10M C M 1981BKb (46569)2285

K(ZnL+py)=1.22

K(ZnL+A)=2.73

K(ZnL+NH3)=2.3

K(ZnL+CH3COO)<0.3

A=1,3-diazole. K(ZnL+HB)=0.6, H3B=H3PO4

Zn++ gl KNO3 35°C 2.0M C K1=6.55 B2=11.59 1981GMg (46570)2286

Zn++ gl KNO3 25°C 0.10M U T M 1981SVa (46571)2287

K(ZnL+Gly)=3.78

At 20 C: K(ZnL+Gly)=3.84; 30 C: 3.72; 40 C: 3.59

Zn++ gl NaClO4 25°C 0.10M U M K1=10.31 1974RMa (46572)2288

Zn++ gl NaClO4 25°C 0.10M U M 1974RMb (46573)2289

K(Zn+HL)=3.45

K(Zn+HPO4)=2.40

K(ZnHL+HPO4)=8.10

K(Zn+HL+HPO4)=11.55

Zn++ gl NaClO4 25°C 0.10M U M 1974RMb (46574)2290

K(Zn+HL)=3.45

K(ZnHL+Fulvate)=4.35

K(Zn+HL+Fulvate)=7.80

Zn++ nmr oth/un 25°C 0.40M U M 1973RBb (46575)2291

K(ZnL+en)=5.00

K(ZnL+Gly)=3.62

```
                                        K(ZnL+A)=3.61
                                        K(ZnL+B)=1.34
H2A=iminodiethanoic acid, H2B=malonic acid.  K(ZnL+OH)=4.01
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 35°C 0.20M U    M                  1972PBe (46576)2292
                                        K(ZnL+A)=5.17
                                        K(ZnL+B)=5.21
                                        K(ZnL+C)=5.13
H2A=thioglycollic acid, H2B=thiolactic acid, H3C=thiomalic acid
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U T  M                  1971ICa (46577)2293
                                        K(ZnL+Pro)=3.98
                                        K(ZnL+Gly)=3.59
15 C, K(ZnL+Pro)=4.14. 70 C, K=3.38
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U T  M                  1971ICb (46578)2294
                                        K(ZnL+A)=3.19
HA=piperidine-2-carboxylic acid. 15 C, K(ZnL+A)=3.32. 70 C, K=2.82
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U T  M                  1971ICc (46579)2295
                                        K(Zn(OH)L+H)=10.06
                                        K(ZnL+A)=3.28
HA=1-aminopentanecarboxylic acid.
K(ZnL(OH)+H)(15 C)=10.47, (70 C)=9.02; K(ZnL+A)(15 C)=3.33, (70 C)=2.80
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U T  M                  1971IVb (46580)2296
                                        K(ZnL+Sar)=3.22
                                        K(ZnL+A)=3.28
HA=dimethylglycine. 15 C, K(ZnL+Sar)=3.34, K(ZnL+A)=3.41.
70 C, K(ZnL+Sar)=2.75, K(ZnL+A)=2.76
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U    M                  1971TSh (46581)2297
                                        K(ZnL+Ala)=3.36
                                        K(ZnL+Gly)=3.76
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 1.50M U    M   K1=10.45       1970FDa (46582)2298
                                        B(ZnL(NH3))=12.78
                                        B(ZnL(py))=11.21
                                        B(ZnL(NH3)(py))=13.21
                                        B(ZnL(NH3)A)=13.16
A=thiourea. B(ZnL(NH3)(SCN))=13.05. B(ZnL(SCN)2)=12.14.
B(ZnL(NH3)(S2O3))=13.85. B(ZnL(S2O3)2)=13.69
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U    M                  1970STd (46583)2299
                                        K(ZnL+A)=4.23
                                        K(ZnL+B)=7.07
H3A=sulphosalicylic acid. H4B=tiron
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U    M                  1969AIa (46584)2300
                                        K(ZnL+Trp)=3.02
```

```
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U    M                 1969BIa (46585)2301
                                        K(ZnL+histamine)=3.61
                                        K(ZnL(histamine)+H)=8.41
--------------------------------------------------------------------------------
Zn++       nmr oth/un 25°C  1.0M U        K1=10.0   B2=13.50  1969RKa (46586)2302
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.05M U    M                 1968HAa (46587)2303
                                        K(ZnL+OH)=3.55
                                        K(ZnL+Gly)=3.64
                                        K(ZnL+A)=1.58
A=ethylvalinate
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.08M U    M                 1968HAa (46588)2304
                                        K(ZnL+OH)=3.55
                                        K(ZnL+A)=1.58
                                        K(ZnL+Gly)=3.64
A=ethylvalinate
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U    M                 1968ICa (46589)2305
                                        K(ZnL+Arg)=3.28
                                        K(ZnL+Ser)=3.18
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U    M                 1968ICa (46590)2306
                                        K(ZnL+A)=2.28
                                        K(ZnLA=ZnLA(OH)+H)=-10.20
                                        K(ZnL=ZnL(OH)+H)=-10.16
A=glycylglycine
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U    M                 1968ICb (46591)2307
                                        K(ZnL+Asp)=3.24
                                        K(ZnL+Glu)=2.96
--------------------------------------------------------------------------------
Zn++       gl  NaCl   25°C  1.0M U        K1=9.18        1966CWa (46592)2308
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U        K1=10.44       1966IMb (46593)2309
--------------------------------------------------------------------------------
Zn++       cal KNO3   20°C 0.10M U   H                  1964HDa (46594)2310
DH(K1)=-3.5 kJ mol-1, DS=192.3 J K-1 mol-1
--------------------------------------------------------------------------------
Zn++       vlt KNO3   20°C 0.10M U      T K1=10.66       1956SGa (46595)2311
--------------------------------------------------------------------------------
Zn++       vlt KCl    20°C 0.10M U      T K1=10.67       1955SAa (46596)2312
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U        K1=10.45       1951SFa (46597)2313
--------------------------------------------------------------------------------
Zn++       vlt KCl    20°C 0.20M U        K1=10.35       1950KKa (46598)2314
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U        K1=>10    K2=3.0    1948SBa (46599)2315
                                        K(ZnLOH+H)=10
```

****

C6H9N3O2 HL Histidine CAS 71-00-1 (1)
2-Amino-3-(4'-imidazolyl)propanoic acid; H2N.CH(CH2.C3H3N2)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C	M	K1=6.40 K(ZnL+A)=4.08 B(ZnLA)=10.48 K(ZnL+B)=4.15 B(ZnLB)=10.55	1999AAa (47399)	2316
							K(ZnHL+C)=2.13, K(ZnL+D)=4.23, B(ZnLD)=10.23.		
							HA=MOPSO, HB=MOPS HC=DIPSO, HD=TAPSO.		
Zn++	vlt	NaClO4	25°C	1.0M	C	M	K1=6.53 B2=12.40 B3=14.32 B(ZnAL)=6.69 B(ZnA2L)=12.20 B(ZnAL2)=14.51	1997KKb (47400)	2317
							Method: polarography. HA is pyridoxine (vitamin B6). Medium pH 8.50.		
Zn++	gl	NaClO4	25°C	0.20M	M		K1=6.514 B2=12.01 B(ZnHL)=11.623	1994VBb (47401)	2318
Zn++	gl	NaNO3	25°C	0.50M	C		K1=6.48 B2=11.92 B(ZnH-1L2)=1.97 B(ZnH-2L2)=-8.84	1994WCa (47402)	2319
Zn++	gl	KNO3	25°C	0.10M	M		K1=6.62 B2=12.03	1993GVa (47403)	2320
Zn++	nmr	oth/un	21°C	var	U	M	K1=6.90 B2=12.20 *K(ZnL2)=-11.15 *K(ZnH-1L2)=-11.80 K(ZnL2+en)=1.85 K(ZnL2+pn)=1.78	1992DHa (47404)	2321
							Medium: D2O. pD=pH+0.40. K(ZnL2+Gly)=1.30, K(ZnH-1L2+en)=1.48, K(ZnH-1L2+pn) =1.30, K(ZnH-1L2+Gly)=1.30, K(ZnL2+Hen)=0.70, K(ZnL2+Hpn)=0.78.		
Zn++	gl	KNO3	25°C	0.10M	U		K1=6.61 B2=11.47	1992LPc (47405)	2322
Zn++	gl	NaClO4	25°C	0.20M	U		K1=6.51 B2=12.00	1992VBa (47406)	2323
Zn++	gl	NaCl	37°C	0.15M	U	M	B(ZnLA)=10.215 B(ZnH-1LA)=1.796 B(ZnH2LA)=21.609	1991HWa (47407)	2324
							H2A is 7-oxabicyclo-[2,2,1]-hept-5-ene-2,3-dicarboxylic acid		
Zn++	gl	KNO3	35°C	0.10M	U	M	K1=6.35 B(Zn(Cys)L)=18.50	1991RSb (47408)	2325

```
--------------------------------------------------------------------------------
Zn++       gl  NaCl   25°C  1.0M C        K1=6.17   B2=11.65  1990BFb (47409)2326
                                        B(ZnHL)=11.58
                                        B(ZnHL2)=17.73
                                        B(ZnH2L2)=22.60
                                        B(ZnH2L)=15.10
Method: measurement by glass and Zn/Hg electrodes.
--------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M U    M   K1=6.70        1989RSb (47410)2327
                                        B(ZnL(thiodipropanoate))=17.63
                                        K(Zn(TDPA)+L)=6.47
--------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.20M U    M   K1=6.34        1989RVa (47411)2328
                                        K(ZnA+L)=5.57
A=bis(imidazol-2-yl)methane
--------------------------------------------------------------------------------
Zn++       dis oth/un 25°C 0.00  U        K1=8.19        1987WCa (47412)2329
--------------------------------------------------------------------------------
Zn++       gl  NaCl   37°C 0.15M U        K1=6.26   B2=11.45  1985CFb (47413)2330
                                        B(ZnHL)=10.38
                                        B(ZnHL2)=16.67
--------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M C    M   K1=6.35        1985RRc (47414)2331
                                        B(ZnL(cytidine))=11.95
--------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M C        K1=6.35        1985RRh (47415)2332
--------------------------------------------------------------------------------
Zn++       oth NaClO4 35°C 0.10M C        K1=6.42   B2=11.42  1985SGc (47416)2333
Method: paper electrophoresis. Medium pH 8.5.
--------------------------------------------------------------------------------
Zn++       cal KNO3   25°C 0.10M C   H                   1984ACb (47417)2334
DH(K1)=-20.1 kJ mol-1, DS=57.3 J K-1 mol-1; DH(B2)=-45.6, DS=75.2;
DH(ZnHL)=-47.6, DS=63.
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C    M                   1984KDb (47418)2335
                                        K(Zn(DOPA)+L)=5.83
                                        B(ZnHL(DOPA))=26.06
                                        K(Zn(Dopamine)+L)=6.13
                                        B(ZnHL(Dopamine))=26.34
K(ZnA+L)=6.01, B(ZnHLA)=25.13; K(ZnB+L)=6.07, B(ZnHLB)=25.82
A=Noradrenaline, B=Adrenaline
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C TIH  R K1=6.51   B2=12.01  1984PEa (47419)2336
IUPAC evaluation. DH(B2)=-47.8 kJ mol-1
37 C and 0.15 mol dm-3: K1(tentative)=6.34, B2=11.69
--------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M C    M   K1=6.89        1983KSc (47420)2337
                                        K(Zn+HA+L)=10.56
                                        K(Zn+HB+L)=10.38
A is adenine; HB is cytosine.
```

```
---------------------------------------------------------------------------
Zn++       gl  NaNO3  37°C 0.15M U        K1=6.051       1982ESa (47421)2338
                                          B(ZnHL)=11.821
                                          B(ZnHL2)=17.991
---------------------------------------------------------------------------
Zn++       gl  NaNO3  37°C 0.15M U    M                  1982ESa (47422)2339
                                          B(ZnH2L(pyridoxamine))=28.494
                                          B(ZnH3L(pyridoxamine))=35.812
                                          B(ZnH4L(pyridoxamin))=42.00
                                          B(ZnH3L2(pyridoxamine))=41.99
B(ZnH4L2(pyridoxamine))=48.404
---------------------------------------------------------------------------
Zn++       gl  NaCl   37°C 0.15M U        K1=6.30   B2=11.45  1982HFa (47423)2340
                                          B(ZnHL)=10.38
                                          B(ZnHL2)=16.67
---------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M C    M   K1=6.336  B2=11.60  1981ABe (47424)2341
                                          B(ZnHL)=10.718
                                          B(ZnHL2)=16.919
                                          B(ZnAL)=15.090
                                          B(ZnHAL)=21.233
H2A is cysteine.
---------------------------------------------------------------------------
Zn++       gl  NaCl   37°C 0.15M C        K1=6.287  B2=11.43  1981CMc (47425)2342
---------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U        K1=6.69   B2=12.06  1980DMa (47426)2343
---------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M   K1=6.53   B2=11.92  1979ADa (47427)2344
---------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M T                1978DOc (47428)2345
                                          B(ZnLA)=11.57
                                          B(ZnHLA)=17.67
A=Imidazole-5-ethylamine
---------------------------------------------------------------------------
Zn++       gl  KNO3   30°C 0.10M M        K1=6.67   B2=11.78  1978MSi (47429)2346
---------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M U    M   K1=6.31   B2=11.84  1978SKa (47430)2347
                                          B(ZnHL)=11.37
                                          B(ZnHL2)=17.55
                                          B(ZnL(Gly))=10.89
                                          B(ZnL(en))=11.65
---------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=6.53   B2=11.92  1977DOb (47431)2348
---------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C      T K1=6.48   B2=12.08  1976PSb (47432)2349
                                          B(ZnHL)=11.42
                                          B(ZnHL2)=17.89
                                          B(ZnH2L2)=23.56
---------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=6.49   B2=12.07  1976PSb (47433)2350
```

B(ZnHL)=11.41
B(ZnHL2)=17.87
B(ZnH2L2)=23.53

Ligand: D-His

Zn++ gl KCl 25°C 0.10M C T K1=6.567 B2=12.070 1976RIa (47434)2351
K(Zn(DL-His))=6.574
B(Zn(DL-His)2)=12.190

Zn++ gl KNO3 37°C 0.15M U K1=6.22 B2=11.49 1975APb (47435)2352
K(Zn+HL)=2.08

Zn++ gl none 21°C 0.0 M K1=6.36 B2=12.13 1974YAa (47436)2353

Zn++ cal KNO3 25°C 0.10M C H 1971BPi (47437)2354
DH(B1)=-47.72 kJ mol-1, For D-His: DH=-47.81, for rac-His: DH=-49.21

Zn++ gl KCl 25°C 0.10M U K1=6.56 B2=12.06 1970MMf (47438)2355
DL-histidine: K1=6.53, K2=5.63

Zn++ gl NaClO4 25°C 3.00M U T K1=7.07 B2=12.74 1970WIa (47439)2356

Zn++ gl KNO3 25°C 0.10M U M K1=6.49 B2=11.90 1969MBa (47440)2357
B(ZnL(CN))=11.76
B(ZnL(CN)2)=16.71
B(ZnL(CN)3)=20.48

Zn++ gl KNO3 25°C 0.20M U T K1=6.91 B2=12.44 1969RMb (47441)2358
K1(15 C)=7.01, K1(40 C)=6.78, K2(15 C)=5.64, K2(40 C)=5.37

Zn++ gl KNO3 37°C 0.15M U K1=6.34 B2=11.69 1967PSd (47442)2359

Zn++ cal KNO3 21°C 0.10M U H 1967SSl (47443)2360
DH(B2)=-48.9 kJ mol-1, DS=61 J K-1 mol-1

Zn++ EMF oth/un 25°C ? U K1=6.94 B2=12.53 1966PAa (47444)2361

Zn++ gl KCl 40°C 0.25M U T H K1=6.52 B2=11.59 1965AZa (47445)2362
K1=7.00(0 C),6.78(15 C),6.40(25 C); K2=5.96(0 C),5.55(15 C),5.02(25 C)
At 15 C: DH(K1)=-28.8 kJ mol-1,TDS=8.4 kJ mol-1, DH(K2)=-47.7

Zn++ gl KCl 15°C 0.25M U HM 1965AZa (47446)2363
DH(ZnA+L=A+ZnL)=9.6 kJ mol-1, TDS=20 kJ mol-1. A=histidine methyl ester

---

Zn++ gl KNO3 25°C 0.20M U K1=6.57 1963CCb (47447)2364

Zn++ gl KCl 25°C .058M U T K1=6.84 B2=12.20 1961SMa (47448)2365
0 C, K1=7.35, K2=6.20; 45 C, K1=6.58, K2=5.35

Zn++ gl oth/un 25°C 0.01M U K1=6.63 B2=12.26 1959LRa (47449)2366

```
--------------------------------------------------------------------------------
Zn++       oth oth/un   ?     ?  U        K1=11.2        1959MHa (47450)2367
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.15M U        K1=6.67   B2=11.78  1955LMa (47451)2368
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C 0.00  U        B2=12.0        1953PEa (47452)2369
Medium: 0.0025 ZnSO4
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C 0.01M U        B2=12.0        1952ALa (47453)2370
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.01M U        B2=12.88       1950MMa (47454)2371
********************************************************************************
C6H9N3O2S             H2L    Thiolhistidine   CAS 13552-61-9  (5659)
1-Amino-2-(2-Mercaptoimidazole)-propionic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=9.16   B2=17.20  1982TSb (47636)2372
********************************************************************************
C6H9N3O3                L    Metronidazole    CAS 443-48-1  (1432)
2-Methyl-5-nitro-H-imidazole-1-ethanol; C3HN2(NO2)(CH3).CH2.CH2.OH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=0.53        1983LWa (47646)2373
********************************************************************************
C6H9O6P                 H3L                   CAS 4408-72-4  (7015)
Phosphinotriethanoic acid; P(CH2.COOH)3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=2.50        1979POa (47655)2374
Also data for 50% v/v dioxan/H2O
********************************************************************************
C6H10N2                 L                     CAS 35203-44-2  (2054)
1-Propylimidazole; C3H3N2.CH2.CH2.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=2.62   B2=4.68   1979LBa (47677)2375
                                        B3=7.25
                                        B4=9.19
                                        B5=9.99
********************************************************************************
C6H10N2                 L                     CAS 931-36-2  (1419)
2-Ethyl-4-methyl-1,3-diazole; C3H2N2(CH3)(C2H5)
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=1.30   B2=2.00   1982LKb (47681)2376
```

B3=6.77
B4=8.20
****
C6H10N2O2S2 H2L cyclo-(Cys-Cys) CAS 76392-90-0 (7985)
cyclo-(Cysteinyl-cysteinyl);

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M M 2001GVa (47706)2377
B3=23.42
****
C6H10N2O3 HL CAS 32514-11-7 (4318)
dl-Tetranordethiobiotin;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 50% U M K1=2.19 1969SMc (47709)2378
K(ZnA+bpy)=2.01
****
C6H10N2O4 H2L (3104)
Piperazine-2,6-dicarboxylic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 22°C 0.10M U K1=5.7 B2=9.8 1964PCa (47731)2379
****
C6H10N2O4 H2L CAS 89601-09-2 (3102)
trans-Piperazine-2,3-dicarboxylic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 22°C 0.10M U K1=6.7 B2=10.4 1964PCa (47742)2380
****
C6H10N2O5 H2L Gly-Asp CAS 4685-12-5 (282)
Glycyl-aspartic acid; H2N.CH2.CO.NH.CH(CH2.COOH).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C K1=3.96 B2=6.64 1995KLa (47776)2381
B(ZnH-2L)=-13.48
****
C6H10N2O5 H2L ADA CAS 26239-55-4 (2747)
N-(2-Acetamido)iminodiethanoic acid; H2N.CO.CH2.N(CH2.COOH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C M K1=6.85 2003AHa (47810)2382
K(ZnL+A)=3.75
HA is 3-amino-5-mercapto-1,2,4-triazole.

```
Zn++       gl  NaNO3  25°C 0.10M C        K1=7.50        2000KHb (47811)2383
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M M    M   K1=6.86        1996AEa (47812)2384
Data for ternary complexes with dipicolinic acid
-------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M M        K1=9.73        1996KSc (47813)2385
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=6.85        1989MAd (47814)2386
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=7.10   B2= 9.22  1983LRc (47815)2387
                                        *K(ZnL2)=-9.49
                                        *K(ZnH-1L2)=-10.56
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=7.10   B2=9.22   1981LRb (47816)2388
                                       K(ZnL2=ZnH-1L2+H)=-9.49
                                       K(ZnH-1L2=ZnH-2L2+H)=-10.56
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=7.10        1979NAb (47817)2389
-------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U        K1=7.30   B2=9.54   1955SAa (47818)2390
*************************************************************************
C6H10N2O6P2          H4L                          (6893)
N-(2-Pyridyl)aminomethylenedi(phosphonic acid); C5H4N.NH.CH(PO3H2)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=11.17       1990GKa (47867)2391
                                       K(Zn+HL)=9.10
                                       K(Zn+H2L)=5.25
*************************************************************************
C6H10N4                L    Metrazole        CAS 54-95-5  (2046)
1,5-Pentamethylenetetrazole, 6,7,8,9-Tetrahydro-5H-tetrazoloazepine;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       EMF KNO3   25°C 0.50M U        K1=1.0         1976LWa (47875)2392
*************************************************************************
C6H10N4OS              L                          (2622)
4,5-Dimethyl-2,4,6,8-tetraazabicyclo[3,3,O]-octane-3-one-7-thione;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=5.56        1986KKa (47887)2393
*************************************************************************
C6H10N8O               L                          (8205)
Bis(5-tetrazolylethylene)oxide;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  NaNO3  20°C  0.1M U        K1=5.7         1979ESa (47913)2394
```

```
**************************************************************************
C6H10O2               HL                      CAS 815-57-6  (2261)
3-Methyl-pent-2,4-dione; CH3.CO.CH(CH3).CO.CH3
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  75%  U        K1=10.16       1962MMb (47944)2395
**************************************************************************
C6H10O2S2             HL                        (1224)
1,2-Dithiolane-3-propanoic acid, Bisnorlipoic acid; C3H5S2.CH2CH2COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M C        K1=2.58        1978SPd (47973)2396
**************************************************************************
C6H10O3               HL                      CAS 16841-19-3  (3649)
1-Hydroxycyclopentanecarboxylic acid; HO.C5H8.COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=1.89   B2=3.19   1967PRb (47982)2397
**************************************************************************
C6H10O3               HL                      CAS 141-97-9  (3068)
Ethyl acetoacetate; CH3.CO.CH2.CO2.C2H5
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  75%  U        K1=9.24        1973AAa (48008)2398
**************************************************************************
C6H10O4               H2L    Adipic acid      CAS 124-04-9  (401)
1,6-Hexanedioic acid; HOOC.(CH2)4.COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       oth NaClO4 40°C 0.10M U        K1=2.8         1981SSe (48047)2399
Method: Paper electrophoresis.
--------------------------------------------------------------------------
Zn++       dis NaClO4 25°C 1.00M U        K1=1.23   B2=1.78   1974MSc (48048)2400
--------------------------------------------------------------------------
Zn++       dis oth/un 25°C  0.0  U        K1=2.67        1966RMb (48049)2401
--------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.10M U        K1=1.8         1960YYa (48050)2402
**************************************************************************
C6H10O4               H2L                       (3070)
Isopropylmalonic acid; HOOC.CH(CH(CH3)2).COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C   H    K1=2.85   B2=5.54   1989ABa (48110)2403
                                          B(Zn(bpy)L)=8.02
```

DH(K1)=17.9 kJ mol-1, DS(K1)=114.6 J K-1 mol-1

****

C6H10O4 H2L CAS 616-62-6 (3069)

n-Propylmalonic acid; HOOC.CH(C3H7).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C	H	K1=2.75	B2=4.81	1989ABa (48116)	2404
							K(Zn+HL)=1.15			
							B(Zn(bpy)L)=7.52			

DH(K1)=16.2 kJ mol-1, DS(K1)=107 J K-1 mol-1

Zn++	con	oth/un	25°C	.001M	U		K1=3.12		1929GIa (48117)	2405

****

C6H10O4S H2L CAS 42715-54-8 (986)

2,2'-Thiodipropanic acid; HOOC.CH(CH3).S.CH(CH3).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=2.13		1975LPa (48122)	2406

****

C6H10O4S H2L CAS 111-17-1 (139)

3,3'-Thiodipropanoic acid; HOOC.CH2.CH2.S.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	35°C	0.10M	C	M	K1=2.76		1999DSb (48161)	2407
							B(ZnAL)=4.51			

A is thiamine hydrochloride.

Zn++	gl	NaClO4	25°C	0.10M	U	TIH	K1=3.01		1982DBb (48162)	2408

Data for 0.2, 0.3 M. At I=0, K1=2.91. Data for 35 and 45 C.

DH(K1)=-6.15 kJ mol-1, DS(K1)=35.9 J K-1 mol-1.

Zn++	gl	KNO3	25°C	0.05M	M		K1=3.97		1975DPb (48163)	2409

Zn++	gl	KNO3	25°C	0.10M	C		K1=1.72		1975LPa (48164)	2410
							K(Zn+HL)=1.28			

Zn++	vlt	KNO3	30°C	1.20M	U	I	K1=1.49		1972RGb (48165)	2411

1.2 KNO3, 20% (CH3)2S0: K1=2.64. 20% DMF: K1=2.47

Zn++	gl	NaClO4	25°C	0.10M	U		K1=1.6		1968SKd (48166)	2412

****

C6H10O4S2 H2L CAS 7244-02-2 (438)

1,2-Bis(carboxymethylthio)ethane; HOOC.CH2.S.CH2.CH2.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	oth/un	25°C	0.10M	U		K1=2.55		1971FPa (48223)	2413

```
--------------------------------------------------------------------------------
Zn++       oth oth/un 25°C 0.10M U        K1=2.7         1964PCa (48224)2414
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C 0.10M U        K1=2.61        1961SOb (48225)2415
                                          K(Zn+HL)=1.74
********************************************************************************
C6H10O4S2             H2L                     CAS 27887-85-0  (7721)
meso-Dimercaptobutanedioc acid dimethyl ester;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C        B2=14.84       2002CDc (48273)2416
********************************************************************************
C6H10O4Se             H2L                     CAS 80030-00-8  (987)
2,2'-Selenodipropanic acid; HOOC.CH(CH3).Se.CH(CH3).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=1.80        1975LPa (48279)2417
********************************************************************************
C6H10O4Se             H2L                     CAS 2168-88-9  (982)
3,3'-Selenodipropanic acid; HOOC.CH2.CH2.Se.CH2.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=1.77        1975LPa (48290)2418
                                          K(Zn+HL)=1.05
********************************************************************************
C6H10O4Te             H2L                     CAS 2168-91-4  (983)
3,3'-Tellurodipropanoic acid; HOOC.CH2.CH2.Te.CH2.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=1.4         1975LPa (48301)2419
********************************************************************************
C6H10O5               H2L                     CAS 5961-83-1  (981)
3,3'-Oxodipropionic acid; HOOC.CH2.CH2.O.CH2.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=2.13        1975LPa (48311)2420
********************************************************************************
C6H10O6               H2L                     CAS 23243-68-7  (242)
1,2-Bis(carboxymethoxy)ethane; HOOC.CH2.O.CH2.CH2.O.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=2.65        1975MTc (48325)2421
********************************************************************************
C6H10O7                HL    Galacturonic     CAS 685-73-4  (290)
```

D-Galacturonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	37°C	0.15M	C		K1=1.74	B2=2.62	1976MTa (48380)	2422
							B(ZnHL)=3.93			
							B(ZnH-1L)=-3.38			

****

C6H10O7 HL Glucuronic acid CAS 6556-12-3 (599)
D-Glucuronic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	R4N.X	25°C	0	M	I	K1=1.80	B2=3.3	1996GMb (48409)	2423

At I=0.16 M: K1=1.43, B2=2.8

****

C6H10O8 H2L Saccharic acid CAS 87-73-0 (1191)
D-2,3,4,5-Tetrahydroxy-1,6-hexanedioic acid, Glucaric acid; HOOC.(CHOH)4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	U		K1=3.47		1997PPa (48459)	2424
							K(Zn+H2L=ZnL+2H)=-3.90			
							*K(ZnL)=-7.38			
Zn++	gl	NaClO4	25°C	0.10M	U	M	K1=3.46		1997PPc (48460)	2425
							K(Zn(edta)+L)=3.21			

****

C6H11NO2 HL CAS 52-52-8 (3105)
1-Aminocyclopentanecarboxylic acid; H2N.C5H8.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	20°C	0.10M	U		K1=4.76	B2=9.16	1963IPa (48501)	2426

****

C6H11NO2 HL CAS 16258-05-2 (1128)
2-Amino-hex-5-enoic acid; CH2:CH.CH2.CH2.CH(NH2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=4.49	B2=8.602	1975IPb (48509)	2427

****

C6H11NO2 HL Pipecolinic acd CAS 3105-95-1 (1125)
2-Piperidine carboxylic acid; C5H10N.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	oth/un	30°C	0.10M	U	H	K1=5.86	B2=11.44	1985RRe (48533)	2428

DH(K1)=-71 kJ mol-1, DS=122 J K-1 mol-1, DH(K2)=-34, DS=4.7

```
Zn++       gl  alc/w  25°C  var  U T                    1974DKa (48534)2429
                                      K1=67.96/D+3.5766
                                      K2=42.94/D+4.123
D=Dielectric constant for the 1-PrOH/H2O mixture. Also at 0 and 40 C
**************************************************************************
C6H11NO4              H2L                        (1232)
2,2'-Iminodipropanoic acid; HN(CH(CH3)COOH)2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=6.6    B2=11.10  1987AKa (48571)2430
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=6.6    B2=11.10  1987BKa (48572)2431
**************************************************************************
C6H11NO4              H2L                        (3106)
Iminodipropanoic acid; HN(CH2.CH2.COOH)2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KCl    30°C 0.10M U        K1=4.95        1952CMa (48588)2432
**************************************************************************
C6H11NO4S             H3L                     CAS 58033-48-5  (3124)
N-2-Mercaptoethyliminodiethanoic acid; HS.CH2.CH2.N(CH2.COOH)2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U        K1=15.92       1955SAa (48605)2433
**************************************************************************
C6H11NO4S             H2L                     CAS 104640-54-2  (2460)
S-Carboxyethyl-L-cysteine; H2N.CH(CH.S.CH2.CH2.COOH).COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 2.00M U        K1=4.61   B2=8.67   1980MAc (48620)2434
**************************************************************************
C6H11NO5              H2L    HIMDA            CAS 93-62-9  (192)
N-(2-Hydroxyethyl)iminodiethanoic acid; HO.CH2.CH2.N(CH2.COOH)2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       cal KNO3   25°C 1.00M U TI                    1987VRa (48661)2435
DH(K1)=-14.2 kJ mol-1, DS=103 J K-1 mol-1; DH(B2)=-19.7, DS=155
--------------------------------------------------------------------------
Zn++       vlt NaClO4 25°C 0.30M U        K1=8.02        1974KOb (48662)2436
--------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 1.50M U    M   K1=8.33        1970FDa (48663)2437
                                      B(ZnL(NH3))=11.08
                                      B(ZnL(py))=9.54
                                      B(ZnL(NH3)2)=12.62
                                      B(ZnL(py)2)=9.92
```

B(ZnLA2)=10.20. B(ZnLA(NH3))=11.72. B(ZnL(py)(NH3))=11.76.
B(ZnL(NH3)(SCN))=11.68. B(ZnL(NH3)(S2O3))=12.26 + other data. A=thiourea

---

Zn++ oth KNO3 20°C 0.10M U K1=9.4 B2=12.90 1965JMa (48664)2438
Method: electrophoresis

Zn++ gl KCl 20°C 0.10M U K1=8.33 B2=12.02 1955SAa (48665)2439
K(ZnLOH+H)=9.44
K(Zn(L(OH)2)+H)=10.85

Zn++ gl KCl 30°C 0.10M U K1=8.57 B2=12.67 1952CCa (48666)2440

****

C6H11NO5 H2L (7174)
N-Carboxymethylthreonine; HOOCCH2NHCH(CH(OH)CH3)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=7.06	B2=12.14	2001MTb	(48822)2441
							B(ZnHL)=10.52			
							B(ZnHL2)=18.06			
							B(ZnH-1L)=-1.46			

****

C6H11NO5 H2L (1233)
N-Hydroxyimino-2,2'-dipropanoic acid; HO.N(CH(CH3)COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=5.05	B2=9.10	1987AKa	(48833)2442
Zn++	gl	KNO3	25°C	0.10M	U		K1=5.05	B2=9.10	1987BKa	(48834)2443

****

C6H11NO7S H3L CAS 39716-94-4 (3125)
N-2-Sulfoethyliminodiethanoic acid (taurine-NN-diacetic acid)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	EMF	KCl	20°C	0.10M	U		K1=7.05		1949SAa	(48843)2444

Method: H electrode

****

C6H11NS2 L CAS 98-99-7 (3108)
Piperidine-1-carbodithioic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	dis	oth/un	25°C	0.01M	U		B2=11.5		1973SSa	(48854)2445
Zn++	vlt	KCl	25°C	1.00M	U		B2=11.7		1973SSa	(48855)2446

****

C6H11N3 L CAS 34392-54-6 (4350)
4-(2-Methylaminoethyl)imidazole;

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U        K1=4.83        1973BDb (48863)2447
********************************************************************************
C6H11N3                 L                     CAS 16227-10-4  (8351)
4-Butyl-4H-1,2,4-triazole;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U TIH    K1=2.81   B2= 5.24  1981RPb (48868)2448
Medium: KClO4. Also data for 35 C and for 0.05 M KClO4.
Also DH and DS values.
********************************************************************************
C6H11N3O4              HL    Gly-Gly-Gly      CAS 556-33-2  (415)
Glycyl-glycyl-glycine; H2N.CH2.CO.NH.CH2.CO.NH.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=3.28   B2=6.45   1992LPc (48955)2449
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M U        K1=3.378  B2=5.395  1975CMa (48956)2450
                                         B(ZnHL)=9.087
                                         B(ZnH-1L)=-4.677
--------------------------------------------------------------------------------
Zn++       nmr oth/un 25°C 0.80M U        K1=3.10        1972RLb (48957)2451
                                         K(Zn+HL)=0.89
Medium: 0.8, 0.2 Zn(NO3)2
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.15M U        K1=3.18        1958LCb (48958)2452
--------------------------------------------------------------------------------
Zn++       EMF none   25°C  0.0  U        K1=3.33   B2=6.32   1955EMa (48959)2453
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.01M U        K1=2.6         1954PEa (48960)2454
Medium: ZnSO4
********************************************************************************
C6H11N9                 L                       (7008)
Di(2-(5-tetrazolyl)ethyl)amine; ((CHN4)CH2.CH2)2NH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  20°C 0.10M U        K1=7.46        1981ESa (49000)2455
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  20°C  0.1M U        K1=7.46        1979ESa (49001)2456
********************************************************************************
C6H12NO7P              H4L                     CAS 55339-27-0  (3127)
N-2-Phosphoethyliminodiethanoic acid; H2O3P.CH2.CH2.N(CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
```

Zn++ EMF KCl 20°C 0.10M U K1=11.24 1949SAa (49031)2457
Method: H electrode
****
C6H12N2 L TED / DABCO CAS 280-57-9 (3076)
1,4-Diazobicyclo[2,2,2]octane (triethylenediamine)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp non-aq ? 100% U HM 1990AHb (49039)2458
K(ZnA+L)=4.69
Medium: CH2Cl2. A=biphenyl capped mesoporphyrin. DH=-60 kJ mol-1. Data for other porphyrin Zn complexes
---
Zn++ sp non-aq ? 100% U HM 1990HMa (49040)2459
K(Zn2A+L=Zn(A)LZn)=7.87
Medium: CH2Cl2. A=cyclic porphyrin dimer. DH=-77 kJ mol-1,DS=-121 J K-1 m-1
****
C6H12N2O3 HL Ala-Ala CAS 1948-31-8 (53)
Alanyl-alanine; H2N.CH(CH3).CO.NH.CH(CH3).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C T K1=3.75 2000RNb (49101)2460
Data for 35 and 45 C.
****
C6H12N2O3 HL DL-Ala-DL-Ala CAS 2867-20-1 (67)
DL-Alanyl-DL-alanine; H2N.CH(CH3).CO.NH.CH(CH3).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 20°C 0.20M U K1=2.97 B2=5.74 1982KRc (49125)2461
****
C6H12N2O3S H2L Ala-Cys (670)
Alanyl-cysteine; NH2.CH(CH3).CO.NH.CH(CH2.SH).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.20M U B2=11.23 1990CRa (49155)2462
B(ZnHL2)=19.86
B(ZnH-1L2)=1.05
B(ZnH2L2)=27.39
****
C6H12N2O3S2 H3L (8783)
Cysteinyl-cysteine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M C K1=11.6 2002VGa (49164)2463
B(ZnHL)=16.8
For the N-acetyl derivative, K1=11.0, B2=21.8.

****

C6H12N2O4 H2L EDDA CAS 5657-17-0 (119)
1,2-Diaminoethane-N,N'-diethanoic acid; HOOC.CH2.NH.CH2.CH2.NH.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=10.99	1979GMa	(49202)2464
Zn++	vlt	NaClO4	25°C	0.30M	U		K1=10.79	1974KOb	(49203)2465
Zn++	gl	NaNO3	25°C	0.10M	U		K1=11.71 B(ZnHL)=15.48 B(ZnH-1L)=11.98 B(Zn2L)=14.91	1974SJa	(49204)2466
Zn++	gl	KNO3	25°C	0.10M	U	M	K(ZnL+Gly)=3.79	1972IVb	(49205)2467
Zn++	gl	KNO3	25°C	0.10M	U	M	K1=11.22 K(ZnL+en)=4.44	1970DNa	(49206)2468
Zn++	gl	KCl	30°C	0.10M	U		K1=11.1	1952CMc	(49207)2469

****

C6H12N2O4 H2L N,N-EDDA CAS 5835-29-0 (2333)
1,2-Diaminoethane-N,N-diethanoic acid; H2N.CH2.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	20°C	0.10M	U		K1=11.93 K(ZnLOH+H)=10.13	1955SAa	(49293)2470

****

C6H12N2O4 H2L CAS 4726-83-4 (5911)
N,N-Dihydroxyhexanediamide; HN(OH).CO.(CH2)4.CO.NH(OH)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C		B(ZnHL)=14.67 B(Zn2L2)=18.04	1993KNa	(49327)2471
Zn++	gl	NaNO3	25°C	0.10M	C		K1=7.76 B(ZnHL)=14.51	1989EHa	(49328)2472

****

C6H12N2O4S2 H2L Cystine CAS 923-32-0 (1404)
DL-Dithio-bis(2-amino-3-propanoic acid); (HOOC.CH(NH2).CH2.S)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	37°C	0.15M	C	T R	K1=6.67 B(ZnHL)=12.85	1995BEa	(49358)2473

IUPAC evaluation

Zn++	gl	NaCl	37°C	0.15M	U	T K1=6.65 B(ZnHL)=12.89	1985CFb (49359)2474
Zn++	gl	NaCl	37°C	0.15M	U	T K1=6.688 B(ZnHL)=12.802	1982HFa (49360)2475
Zn++	gl	NaClO4	37°C	0.15M	U	B(Zn2L)=10.07	1980AMa (49361)2476

****

C6H12N4O6 H3L (2677)

Nitrilotriacetohydroxamic acid; N(CH2.CO.NH.OH)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	M		K1=9.73 B(ZnH3L)=30.76 B(ZnH2L)=24.50 B(ZnHL)=18.33 B(ZnH-1L)=-1.24	1980LSb	(49399)2477

****

C6H12O2 HL 4-Me-valeric CAS 646-07-1 (5862)

4-Methylpentanoic acid; (CH3)2CH.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	C	TI M	K1=0.99 K(Zn(phen)+L)=0.96	1988LTc	(49414)2478

Data also for 50% v/v EtOH/H2O, and 50% v/v Dioxan/H2O mixtures

****

C6H12O5S HL (691)

1-Thio-beta-D-glucopyranose;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.15M	M		K1=4.06 B2=9.34 B3=13.12	1987GFa	(49522)2479

****

C6H12O7 HL Gluconic acid CAS 526-95-4 (904)

D-Gluconic acid, 2,3,4,5,6-Pentahydroxyhexanoic acid; HO.CH2(CHOH)4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	NaClO4	30°C	1.0M	C		K1=1.70 B2= 1.60 B3=1.85 B4=2.04 B5=3.01	1978PBb	(49675)2480

Method: polarography. Medium pH 6.5.

```
Zn++       gl  NaClO4 37°C 0.15M U                      1977RWc (49676)2481
                                        B(ZnH-1L)=-9.69
--------------------------------------------------------------------------
Zn++       gl  oth/un   ?     ?  U                      1976PPd (49677)2482
                                        K(Zn+H2L=ZnHL+H)=-1.62
                                        K(ZnL+H)=8.14
--------------------------------------------------------------------------
Zn++       EMF KCl    20°C 0.20M U        K1=1.70       1938CKa (49678)2483
Method: H electrode
**************************************************************************
C6H13N                   L                     CAS 108-91-8  (314)
Cyclohexylamine; C6H11.NH2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M C        K1=4.60       1974MWb (49799)2484
**************************************************************************
C6H13NO2               HL    Isoleucine       CAS 73-32-5  (424)
2-Amino-3-methylpentanoic acid; CH3.CH2.CH(CH3).CH(NH2).COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C    M   K1=5.29   B2= 8.97  2000ZLa (49875)2485
                                        B(ZnLA)=11.39
A=12-Pentyl-1,4,7,10-tetraazacyclotridecane-11,13-dione.
--------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M C    M   K1=4.60   B2= 8.28  1998ZWa (49876)2486
                                        B(ZnH-1L2)=0.94
                                        B(ZnH-2L2)=-8.26
Data for ternary complexes with 3,3,9,9-tetramethyl-4,8-diazaundecane-
2,10-dione dioxime
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.20M U T HM   K1=5.20       1996JLd (49877)2487
                                        K(Zn(bpy)+L)=5.12
Data for 25-45 C. DH(K1)=-19.3 kJ mol-1, DS(K1)=35 J K-1 mol-1;
DH(Zn(bpy)L)=-7.1, DS(Zn(bpy)L)=75.
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.20M U T  M   K1=4.88   B2= 9.21  1993PPa (49878)2488
                                        K(ZnA+L)=4.81
A is 2,2'-bipyridylamine. Also data for 35 and 45 C.
--------------------------------------------------------------------------
Zn++       gl  NaClO4 27°C 0.20M U    M   K1=4.88   B2= 9.21  1988PPc (49879)2489
                                        K(ZnA+L)=4.81
A is 2,2'-dipyridylamine.
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=4.72       1985MKa (49880)2490
--------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.50M U    M T K1=4.49   B2=8.49   1966LHc (49881)2491
                                        K(ZnL+A)=2.27
                                        B(ZnAL)=6.76
```

```
                                        B(ZnAL2)=9.58
                                        B(ZnA2L2)=12.34
B3=10.9. HA=pyruvic acid
--------------------------------------------------------------------------------
Zn++       vlt oth/un 25°C  1.0M U        B2=11.2        1965VZa (49882)2492
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C 0.01M U        B2=8.2         1952PEa (49883)2493
Medium: ZnSO4
********************************************************************************
C6H13NO2               HL    Leucine          CAS 61-90-5  (47)
2-Amino-4-methylpentanoic acid; H2N.CH(CH2.CH(CH3)2)COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C    M   K1=5.29   B2= 9.13  2000ZLa (50012)2494
                                        B(ZnLA)=11.32
A=12-Pentyl-1,4,7,10-tetraazacyclotridecane-11,13-dione.
--------------------------------------------------------------------------------
Zn++       gl  alc/w  37°C  40%  C    M   K1=5.24   B2= 9.60  1998AAa (50013)2495
                                        B(ZnLA)=9.88
                                        K(ZnL+A)=4.64
                                        K(ZnA+L)=4.66
                                        B(ZnLC)=9.63
HC:2[o-hydroxyphenylazo]-2-cyanomethyl benzimidazole. 40% EtOH/H2O, I=0.15
H2A:5-[o-hydroxyphenylazo] barbituric acid. K(ZnL+C)=4.39, K(ZnC+L)=4.20.
--------------------------------------------------------------------------------
Zn++       gl  alc/w  37°C  40%  C        K1=5.24   B2= 9.60  1997AAb (50014)2496
Medium: 40% v/v EtOH/H2O, 0.15 M NaClO4.
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.20M U T HM   K1=5.09        1996JLd (50015)2497
                                        K(Zn(bpy)+L)=4.52
Data for 25-45 C. DH(K1)=-14.2 kJ mol-1, DS(K1)=54 J K-1 mol-1;
DH(Zn(bpy)L)=-29.7, DS(Zn(bpy)L)=13.
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.20M U T  M   K1=4.74   B2= 9.10  1993PPa (50016)2498
                                        K(ZnA+L)=4.69
A is 2,2'-bipyridylamine. Also data for 35 and 45 C.
--------------------------------------------------------------------------------
Zn++       vlt KNO3   25°C 0.10M C    M   K1=4.50   B2= 8.72  1991KNb (50017)2499
                                        B3=11.03
                                        B(ZnAL)=6.33
                                        B(ZnA2L)=8.79
                                        B(ZnAL2)=10.38
Method: polarography, medium pH 8.5. HA is ethanoic acid.
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U  I     K1=4.73   B2=9.30   1990RAb (50018)2500
Data also for 10% w/w EtOH/H2O (B1=4.94; B2=9.58) and 25% (5.43; 10.15)
--------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.20M U    M   K1=4.69   B2=8.68   1989RVa (50019)2501
                                        K(ZnL+A)=4.26
```

A=bis(imidazol-2-yl)methane

Zn++ gl NaClO4 27°C 0.20M U M K1=4.74 B2= 9.10 1988PPc (50020)2502
K(ZnA+L)=4.69

A is 2,2'-dipyridylamine.

Zn++ gl KNO3 25°C 0.10M U K1=4.88 1985MKa (50021)2503

Zn++ gl oth/un 30°C 0.20M U M K1=4.74 1984JOb (50022)2504
K(Zn(bpy)+L)=4.48

Medium: not stated.

Zn++ nmr KNO3 34°C 0.10M U M 1983SFa (50023)2505
K(Zn(ATP)+L)=3.23

Zn++ gl NaClO4 25°C 0.10M C M T 1980FSa (50024)2506
B(Zn(bpy)L)=9.71
K(Zn(bpy)+L)=4.41
B(ZnL(phen))=11.22
K(Zn(phen)+L)=4.67

K(Zn(bpy)+L)=4.0, K(Zn(Phen)+L)=4.4 by NMR in 0.1-0.7M NaNO3, 34 C.

Zn++ oth KNO3 20°C 0.10M U K1=5.8 B2=10.00 1964JOa (50025)2507
K3=3.3

Method: paper electrophoresis

Zn++ gl oth/un 25°C 0.01M U T K1=3.99 B2=7.37 1959DLb (50026)2508

Zn++ gl oth/un 20°C 0.01M U B2=9.1 1952PEa (50027)2509

Medium: ZnSO4

Zn++ gl oth/un 25°C 0.01M U T K1=4.92 B2=8.93 1949MMa (50028)2510

****

C6H13NO2 HL Norleucine CAS 616-06-8 (602)

2-Aminohexanoic acid (2-Aminocaproic acid) CH3.(CH2)3.CH(NH2).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl NaClO4 20°C 0.10M U T H K1=5.76 B2=10.38 1981SDb (50150)2511

Data for 20-40 C. DH(B2)=-79.3 kJ mol-1, DS(B2)=-71.9 J K-1 mol-1.

Zn++ gl KNO3 30°C 0.10M U M 1980MSb (50151)2512
K(Zn(His)+L)=4.12

Zn++ gl KNO3 25°C 0.10M C K1=4.59 B2=8.93 1975IPb (50152)2513

Zn++ gl oth/un 18°C .005M U B2=8.7 1953PEa (50153)2514

Medium: 0.005 ZnSO4

Zn++ gl oth/un 20°C 0.00 U B2=8.5 1952PEa (50154)2515

Medium: 0.0005 ZnSO4.

Zn++ gl oth/un 20°C 0.01M U B2=10.4 1950ALa (50155)2516

****

C6H13NO2 HL CAS 4312-93-0 (4386)

Hexanohydroxamic acid; CH3.CH2.CH2.CH2.CH2.CO.NH.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C		K1=5.29	B2= 9.41	2000FEc	(50225)2517
							B(ZnH-1L2)=0.0			
							B(ZnH-1L)=-2.93			

****

C6H13NO2 HL CAS 1606-01-5 (2907)

N,N'-Diethylglycine; (C2H5)2N.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	21°C	0.10M	M		K1=4.77	1984LOb	(50235)2518
							B(ZnH-1L)=-2.91		

****

C6H13NO2S HL Ethionine CAS 67-21-0 (1909)

2-Amino-4-(ethylthio)butanoic acid; CH3.CH2.S.CH2.CH2.CH(NH2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=5.22	B2=10.36	1964LMa	(50257)2519

****

C6H13NO3 HL CAS 4383-88-4 (1895)

2-Aminooxyhexanoic acid;CH3.CH2.CH2.CH2.CH(O.NH2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=1.48	1985WTa	(50276)2520

****

C6H13NO4 HL Bicine CAS 150-25-4 (2124)

N,N-Bis(2-hydroxyethyl)glycine; (HO.CH2.CH2)2N.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=5.37	B2=8.57	1991KNa	(50318)2521
Zn++	gl	KNO3	30°C	0.10M	U	M	K1=5.23		1984GHb	(50319)2522
							K(Zn(phen)+L)=4.18			
Zn++	oth	KNO3	20°C	0.10M	U		K1=6.5	B2=10.70	1965JMa	(50320)2523

Method: paper electrophoresis

Zn++	gl	KCl	30°C	0.10M	U		K1=5.38	B2=8.64	1957FCa	(50321)2524

```
Zn++       gl  KCl    30°C 0.10M U        K1=5.36   B2=8.62   1953CCa (50322)2525
********************************************************************************
C6H13NO5               HL    Tricine          CAS 5704-04-1  (1239)
N-(Tris(hydroxymethyl)methyl)glycine; (HO.CH2)3C.NH.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U TIH    K1=5.11        2004EAa (50489)2526
Data for 5-45 C.  DH(K1)=-33.30 kJ mol-1, DS=-13.9 J K-1 mol-1. Values for
0.02-0.15 M KNO3 and 60-75% v/v acetone, 75% EtOH and 75% dioxane/H2O
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M   K1=5.59        2003AHa (50490)2527
                                           K(ZnL+A)=3.59
HA is 3-amino-5-mercapto-1,2,4-triazole.
--------------------------------------------------------------------------------
Zn++       gl  KNO3   30°C 0.10M U    M   K1=5.29        1987TGb (50491)2528
                                           K(Zn(phen)+L)=4.81
--------------------------------------------------------------------------------
Zn++       gl  KNO3   30°C 0.10M U    M   K1=5.29        1985TGa (50492)2529
                                           K(Zn(bpy)+L)=4.58
--------------------------------------------------------------------------------
Zn++       vlt NaClO4 30°C 0.20M C        K1=6.8    B2= 7.80  1984KKd (50493)2530
Method: polarography. Medium pH 8.0
********************************************************************************
C6H13NO6               HL                    CAS 84518-56-9  (4387)
2-Amino-2-deoxy-D-gluconic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=4.56   B2= 8.36  2000KAa (50524)2531
                                           B3=10.20
--------------------------------------------------------------------------------
Zn++       gl  KNO3   30°C 0.10M U        K1=4.9         1966MSa (50525)2532
********************************************************************************
C6H13NS                HL                    CAS 1072-99-7  (284)
1-Methyl-4-mercaptopiperidine; C5H9N(CH3)(SH)
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  alc/w  25°C  3.0M U                        1982BGa (50543)2533
                                           K(3Zn+6HL=Zn3(HL)6)=39.71
                                           K(5Zn+12HL=Zn5(HL)12)=79.87
                                           K(2Zn+6HL=Zn2(HL)6)=35.26
********************************************************************************
C6H13N3O3              HL    Citrulline         (579)
2-Amino-5-ureidovaleric acid; H2N.CO.NH.CH2.CH2.CH2.CH(NH2).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=4.13        1970CMc (50564)2534
```

Zn++ gl oth/un 20°C .005M U B2=8.7 1953PEa (50565)2535
Medium: 0.005 ZnSO4
****
C6H13O9P H2L CAS 26177-86-6 (7139)
Fructose-6-phosphoric acid; C6H11O5.H2PO4

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M C K1=3.49 1996GCa (50602)2536
****
C6H13O9P H2L CAS 59-56-3 (3049)
alpha-D-Glucose-1-phosphoric acid; Glucopyranose-1-phosphoric acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaCl 25°C 0.15M U K1=2.118 1990KLb (50614)2537
B(ZnH-1L)=-5.818

Zn++ ix NaClO4 25°C 0.10M U K1=2.37 1966DTa (50615)2538
By glass electrode K1=2.34
****
C6H14NO2P HL (6465)
Piperidinemethylphosphinic acid; C5H10N.CH2.PO2H2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M C K1=4.46 1992LBa (50631)2539
****
C6H14NO2S (6142)
2-Amino-4-(S,S-dimethylsulphonium)butanoic acid; (CH3)2S(+)CH2CH2CH(NH2)CHLH;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.20M U K1=4.05 B2=7.75 1982FGa (50640)2540
****
C6H14N2 L CAS 20439-47-8 (3077)
cis-1,2-Diaminocyclohexane; C6H10(NH2)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl oth/un 20°C ->0 U T H K1=5.89 B2=11.37 1958BFa (50668)2541
DH(K1)=-21.8 kJ mol-1, DS=38 J K-1 mol-1; DH(K2)=-17.6, DS=42. 10 C K1=6.00,
K2=5.55; 30 C: 5.74, 5.38; 40 C: 5.62, 5.25

Zn++ gl KCl 20°C 0.10M U K1=6.08 B2=11.57 1956SBa (50669)2542
K(ZnLOH++H)=10.6
K(ZnL(OH)2+H)=11.4
****
C6H14N2 L CAS 21436-03-3 (2456)

trans-1,2-Diaminocyclohexane; C6H10(NH2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	oth/un	25°C	0.10M	U		K1=7.74	B2=14.27	1970ABc	(50687)2543

DL, D and L isomers

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	oth/un	20°C	->0	U	T H	K1=6.24	B2=11.65	1958BFa	(50688)2544

DH(K1)=-20.9 kJ mol-1,DS=50 J K-1 mol-1; DH(K2)=-21.8,DS=29. 10 C: K1=6.37, K2=5.66; 30 C: 6.14, 5.31; 40 C: 6.01, 5.25

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	20°C	0.10M	U		K1=6.37	B2=11.98	1956SBa	(50689)2545
							K(ZnL2+OH)=3.1			
							K(ZnL2OH+OH)=2.6			

****

C6H14N2O L (2357)

1-Oxa-4,7-diazacyclononane; Cyclo(-((CH2)2.NH)2(CH2)2.O.-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=6.40	B2=12.1	1990CCa	(50706)2546
Zn++	gl	NaNO3	25°C	0.10M	U		K1=6.36	B2=11.43	1986TSa	(50707)2547
Zn++	gl	NaNO3	25°C	0.01M	U		K1=6.32	B2=11.39	1982HTa	(50708)2548

****

C6H14N2O L CAS 10466-61-2 (3116)

L-Leucine amide; H2N.CH(CH2.CH(CH3)2).CO.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	oth/un	25°C	0.01M	U		K1=1.80	B2=4.26	1959DLb	(50723)2549

****

C6H14N2O2 HL Lysine CAS 56-87-1 (41)

2,6-Diaminohexanoic acid; H2N.(CH2)4.CH(NH2)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	vlt	NaClO4	25°C	1.0M	C	M			1999VKc	(50798)2550
							B(ZnLA)=4.71			
							B(ZnLA2)=7.26			
							B(ZnL2A)=9.80			

Method: polarography. Medium pH: 8.5. A is 4-picoline.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	1.0M	U	M			1995KDa	(50799)2551
							K(Zn+HL)=3.85			
							K(Zn+2HL)=6.73			
							K(Zn+3HL)=9.30			
							K(Zn+HL+A)=6.07			

Method: polarography. Medium pH 8.50. K(Zn+HL+2A)=8.37, K(Zn+2HL+A)=9.77.

HA is propanoic acid.

Zn++ gl NaClO4 25°C 0.10M C B2=9.02 1987LMa (50800)2552
B(ZnHL)=14.80
B(ZnH2L2)=29.29
B(ZnHL2)=20.22

Zn++ gl NaCl 37°C 0.15M U 1985CFb (50801)2553
B(ZnHL)=14.307
B(ZnH2L2)=28.34
B(ZnH-1L)=-2.06

Zn++ gl NaClO4 37°C 0.15M C 1982BKc (50802)2554
B(ZnHL)=14.386
B(ZnHL2)=19.844
B(ZnH2L2)=28.507

Zn++ gl NaClO4 37°C 0.15M C M 1981ABa (50803)2555
B(ZnHL)=14.386
B(ZnHL2)=19.844
B(ZnH2L2)=28.507
B(ZnL(His))=11.075; B(ZnHL(His))=20.328

Zn++ gl KCl 25°C 0.20M C K1=6.32 1981FGb (50804)2556
B(ZnHL)=14.72
B(ZnH2L2)=28.85
B(ZnHL2)=19.67

Zn++ gl oth/un 20°C .005M U B2=7.3 1953PEa (50805)2557
Medium: 0.005 ZnSO4

Zn++ gl oth/un 20°C 0.01M U B2=7.6 1952ALa (50806)2558

****

C6H14N2O3 HL 5-Hydroxylysine CAS 13204-98-3 (1585)
2,6-Diamino-5-hydroxyhexanoic acid; H2N.CH2.CH(OH).CH2.CH2.CH(NH2).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl NaClO4 25°C 0.10M U K1=4.00 B2=7.75 1965NCa (50869)2559

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C6H14N2S L (5635)
1-Thia-4,7-diazacyclononane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl KNO3 25°C 0.10M C K1=7.54 B2=13.60 1992WLb (50883)2560

Zn++ gl NaNO3 25°C 0.10M U K1=7.31 B2=13.15 1987HDa (50884)2561

****

C6H14N4O L CAS 44981-30-8 (8526)

Aminoiminomethylcarbamimidic acid, 2-methylpropyl ester;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	20°C	0.10M	U	I	K1=9.00 B2=12.50	1997IMb	(50895)2562

Data for 0.05-0.20 M (20 C) and 25-40 C (I=0.01 M). At I=0, K1=9.70, K2=3.95.

****

C6H14N4O2 L CAS 1071-93-8 (2563)

1,6-Hexanedioic acid dihydrazide; H2N.NH.CO.CH2.CH2.CH2.CH2.CO.NH.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	none	25°C	0.0	C	I	K1=2.449 B2= 3.31 B(ZnHL)=5.305 B(ZnHL2)=8.005	1996RRb	(50901)2563

Data for 10-60% v/v DMF/H2O and dioxane/H2O. In 50% DMF/H20, K1=1.905, B(ZnHL)=4.982, B(ZnHL2)=8.081. In 50% dioxane/H2O, K1=2.153, B2=3.567.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.20M	U		K1=2.05 B2=3.82	1974FSa	(50902)2564

****

C6H14N4O2 L (1529)

1,8-Diamino-3,6-diaza-2,7-octanedione; (H2N.CH2.CO.NH.CH2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=3.95	1969BMc	(50924)2565
Zn++	gl	KCl	25°C	1.0M	U		K1=4.31	1953CGa	(50925)2566

****

C6H14N4O2 HL Arginine CAS 74-79-3 (40)

2-Amino-5-guanidopentanoic acid; H2N.CH((CH2)3.NH.C(:NH)(NH2)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	NaClO4	25°C	1.0M	C	M	K1=4.23 B2= 8.30 B3=11.23 B(ZnAL)=4.40 B(ZnA2L)=8.60 B(ZnAL2)=11.45	1997KKb	(50980)2567

Method: polarography. HA is pyridoxine (vitamin B6). Medium pH 8.50.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	U		K1=4.00 B2= 7.95	1991APa	(50981)2568
Zn++	gl	NaClO4	37°C	0.15M	C	M	K1=4.074 B2=7.883	1981ABb	(50982)2569

B(ZnL(His))=10.005; B(ZnL(Cys))=13.652; B(ZnHL(Cys))=20.00

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=4.11 B2=8.07	1970CMc	(50983)2570
Zn++	gl	oth/un	25°C	?	U	T	K1=4.19 B2=8.12	1960PEd	(50984)2571

17 C: K1=4.20, 3.99; 30 C: 4.17, 3.89; 35 C: 4.16, 3.84; 40 C: 4.14, 3.81

Zn++ gl oth/un 19°C 0.00 U B2=8.0 1953PEa (50985)2572
Medium: 0.005 ZnSO4

Zn++ gl oth/un 20°C 0.01M U B2=7.8 1952ALa (50986)2573

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C6H14N4O4S2 H2L (6642)
Cystine dihydroxamic acid; HONH.CO.CH(NH2).CH2.SS.CH2.CH(NH2).CO.HNOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C		B(ZnHL)=15.76	1992FKa	(51032)2574

****

C6H14O2Si HL (134)
3-(Trimethylsilyl)propanoic acid; (CH3)3Si.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	nmr	NaNO3	35°C	0.10M	U	M	K(Zn(phen)+L)=0.90 K(Zn(bpy)+L)=0.6	1979MIa	(51041)2575
Zn++	gl	NaNO3	35°C	0.10M	U	M	K1=1.03 B(Zn(phen)L)=7.3 B(Zn(bpy)L)=6.21	1979MIa	(51042)2576

****

C6H14O8P2 H4L CAS 36011-96-8 (4391)
trans-1,2-Cyclohexanediol diphosphate; C6H10(OPO3H2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	R4N.X	20°C	0.10M	U		K1=6.33 K(Zn+HL)=3.10	1969HRa	(51114)2577

Medium: (C3H7)4NI

****

C6H14O12P2 H4L CAS 488-69-7 (3705)
Fructose-1,6-diphosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	C		K1=3.95	1996GCa	(51120)2578

****

C6H14O12P2 H4L CAS 84364-89-6 (7140)
Fructose-2,6-diphosphoric acid; C6H10O4.(H2PO4)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	C		K1=4.48	1996GCa	(51126)2579

```
**************************************************************************
C6H14S                  L    Isopropyl sulfi  CAS 625-80-9  (5674)
2,2'-Thiodipropane, diisopropyl sulfide; (CH3)2CH-S-CH(CH3)2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       ISE non-aq 25°C 100%  U        K1=-0.15       1986MMb (51134)2580
Medium: acetone, Bu4NClO4
**************************************************************************
C6H15N                  L                     CAS 37007-11-7  (4353)
Diisopropylamine; ((CH3)2.CH)2.NH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       ISE R4N.X  25°C 2.00M U        K1=2.41   B2=4.80   1969MPd (51145)2581
                                         K3=2.59
                                         K4=2.31
Medium: NH4NO3
**************************************************************************
C6H15NO3                    Triethanolamine  CAS 102-71-6  (447)
Tris-(2-hydroxyethyl)amine;                                          L
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M U        K1=2.05   B2=3.28   1984HNa (51260)2582
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 2.00M U        K1=2.56        1970URa (51261)2583
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=2.00        1947BRa (51262)2584
**************************************************************************
C6H15NO6P2            H4L                       (6891)
Piperidine-N-Methylenedi(phosphonic acid); C5H10N.CH(PO3H2)2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U        K1=9.47        1978GMf (51319)2585
                                        K(Zn+HL)=6.80
**************************************************************************
C6H15NO7P2            H4L                     CAS 126104-92-5  (8889)
N-2-Methylenetetrahydrofuryloaminomethane-1,1-diphosphonic acid;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C        K1=11.08  B2=15.64  2002MKc (51340)2586
                                        B(ZnH2L)=22.71
                                        B(ZnHL)=19.00
                                        B(ZnH-1L)=0.60
                                        B(ZnH-2L)=-10.95
B(ZnH2L2)=35.61, B(Zn3H2L2)=45.03.
**************************************************************************
```

C6H15NS HL CAS 1942-52-5 (2595)
2-(Diethylamino)ethanethiol;(CH3.CH2)2N.CH2.CH2.SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	20°C	0.10M	U	TI	K1=9.61	B2=17.93	1986NDb	(51350)2587

C6H15N3 L CAS 26150-46-9 (149)
1,3,5-cis,cis-Triaminocyclohexane; C6H9.(NH2)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	U	H	K1=6.95	1996IFb	(51366)2588
							*K(ZnL)=-7.95		
DH(K1)=-3.4 kJ mol-1, DS(K1)=121.7 J K-1 mol-1.									
Zn++	cal	KCl	25°C	0.10M	C	H		1976FMa	(51367)2589
DH(K1)=-0.21 kJ mol-1, DS(K1)=130 J K-1 mol-1; DH(ZnL+OH)=-17.4, DS(ZnL+OH)=54.									
Zn++	gl	KCl	25°C	0.10M	U		K1=6.90	1971CWa	(51368)2590
							K(ZnL+OH)=5.85		
Zn++	gl	KCl	20°C	0.10M	U			1962BSb	(51369)2591
							K(Zn+HL)=3.7		

C6H15N3 L CAS 4730-54-5 (26)
1,4,7-Triazacyclononane; cyclo(-NH.CH2.CH2.NH.CH2.CH2.NH.CH2.CH2-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.20M	M	H	K1=11.3	1978KKb	(51392)2592
By polarography, K1=11.4. DH1=-29.2 kJ mol-1, DS=121 J K-1 mol-1									
Zn++	oth	KNO3	25°C	0.10M	U	H		1977FZa	(51393)2593
DH(K1)=-49.7 kJ mol-1; DS=55.2 J K-1 mol-1									
Zn++	gl	KNO3	25°C	0.10M	M		K1=11.62	1976YZa	(51394)2594
Zn++	gl	KNO3	25°C	0.10M	U		K1=11.6	1975DDa	(51395)2595
Zn++	gl	KNO3	25°C	0.10M	U		K1=11.7 B2=21.70	1973AHc	(51396)2596

C6H15N3O2 HL CAS 52760-35-7 (6670)
Lysine hydroxamic acid; H2N.(CH2)4.CH(NH2)CO.NHOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C		B2=12.5	2002ECa	(51421)2597
							B(ZnHL)=15.49		

B(ZnH2L2)=30.83
B(ZnHL2)=22.24
B(ZnH-1L2)=2.4

****

C6H15N3O2 HL DTMA CAS 55682-20-7 (2334)
N,N-Bis(2-aminoethyl)glycine; (H2N.CH2.CH2)2N.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=13.13	1975MMe (51434)	2598
							K(ZnL+H)=4.20		
							K(ZnLOH+H)=9.89		

****

C6H15N3O3 L (6613)
1,3,5-Triamino-1,3,5-trideoxy-cis-inositol,5-Amino-5-deoxy-streptamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=8.40 B2=13.56	1992HGa (51444)	2599

****

C6H15O2PS2 HL (2059)
O,O'-Dipropyl dithiophosphoric acid; (C3H7O)2P(S)SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	mixed	RT	50%	C			1986HSd (51483)	2600
							B3=2.57		

Medium: 50% v/v DMF/H2O. Method: polarography.

****

C6H15O2PS2 HL CAS 25134-38-7 (4401)
Phosphorodithioic acid O,O-diisopropyl ester; (CH3.CH(CH3)O)2PS.SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	cal	oth/un	?	?	U	M		1971DGb (51496)	2601
							K(2ZnL2=Zn2L4)=0.68		
							K(ZnL2+py)=3.54		
							K(ZnL2(py)+py)=0.83		

Medium: benzene

****

C6H15O15P3 H6L Ins(1,2,6)P3 CAS 28841-62-5 (6479)
D-myo-Inositol 1,2,6-trisphosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	oth/un	25°C	0.10M	C		K1=7.58	2001FSb (51528)	2602
							B(ZnHL)=14.72		
							B(ZnH-1L)=-1.41		
							B(Zn2HLA)=35.75		
							K(Zn2H3LA)=50.15		

Medium: tetramethylammonium p-toluenesulfonate, 0.10 M. A is spermine.
Also constants for reactions HnL+HmA.

****

C6H15PS2 HL CAS 22689-71-0 (4395)
P,P-Dipropylphosphinodithioic acid; (CH3.CH2.CH2)2.PS.SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	alc/w	?	90%	U		B2=6.5	1972TCa	(51552)2603

Medium: 90% EtOH, 0.15 M NaClO4

****

C6H16NO4P HL CAS 387383-55-3 (8776)
N,N,N-Trimethyl-2-(phosphonomethoxy)ethylamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	M		K1=2.03	2002FGb	(51568)2604

****

C6H16N2 L CAS 20485-44-3 (3667)
2,3-Dimethyl-2,3-diaminobutane; (CH3)2.C(NH2).C(NH2)(CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	oth/un	20°C	1.0M	U	TI	B2=13.20	1968POa	(51591)2605

At 0 C:B2=14.08(I=0.1),14.80(0.5),15.20(1); 10 C:B2=13.30(I=0.1),14.02(0.5),
14.30(1); 20 C:B2=12.24(0.1),12.95(0.5) and 30 C. DH(B2)=6.1(?) kJ mol-1

****

C6H16N2O2 L CAS 3197-06-6 (7963)
2-Amino-N,N-bis(2-hydroxyethyl)ethylamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	25°C	0.16M	U		K1=5.42	2001SRa	(51674)2606
							K(Zn+HL)<2		
							*K(ZnL)=-7.61		
							*K(ZnH-1L)=-8.88		
							*K(ZnH-2L)=-10.8		

****

C6H16N2O2 L CAS 93798-65-3 (3119)
3,6-Diaza-1,8-dihydroxyoctane; HO.CH2.CH2.NH.CH2.CH2.NH.CH2.CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	oth/un	25°C	0.50M	U		K1=4.79 B2=9.1	1960HDa	(51684)2607

****

C6H16N2O4P2 H2L (6466)
Piperazine-1,4-diylbis(methylene)bis(phosphinic acid); H2O2P.CH2.C4H8N2.CH2.PO2H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

```
Zn++       gl  NaClO4 25°C 0.10M C        K1=1.49        1992LBa (51706)2608
                                         B(ZnHL)=8.31
**************************************************************************
C6H16N2S                L                        (6464)
5-Thia-2,8-diazanonane;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=4.6         1992WLb (51738)2609
**************************************************************************
C6H16N2S2               L                        (3120)
3,6-Dithiaoctane-1,8-diamine; H2N.CH2.CH2.S.CH2.CH2.S.CH2.CH2.NH2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=4.96   B2=9.06   1977ASg (51753)2610
**************************************************************************
C6H16O3SSi             HL                       CAS 2039-96-5  (133)
3-(Trimethylsilyl)propane sulfonic acid; (CH3)3Si.CH2.CH2.CH2.HSO3
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       nmr NaNO3  35°C 0.10M U  I M                  1979MIa (51779)2611
                                         K(Zn(bpy)+L)=0.45
                                         K(Zn(phen)+L)=0.77
**************************************************************************
C6H16O6P2              H4L                      CAS 4721-22-6  (3708)
Hexane-1,6-diphosphonic acid; H2O3P(CH2)6PO3H2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U                      1967KLa (51787)2612
                                         K(Zn+HL)=7.34
                                         B(Zn2L)=14.73
                                         K(2Zn+HL)=10.31
**************************************************************************
C6H17NO6P2             H4L                      CAS 71066-28-9  (8887)
N-(3-Methylbutyl)aminomethane-1,1-diphosphonic acid;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C        K1=10.44       2002MKc (51800)2613
                                         B(ZnH2L)=23.75
                                         B(ZnHL)=19.39
                                         B(ZnH-1L)=0.29
                                         B(ZnH-2L)=-11.55
B(ZnH2L2)=36.79, B(ZnHL2)=26.07, B(Zn4H3L3)=69.84.
**************************************************************************
C6H17NO6P2             H4L                      CAS 71066-29-0  (8886)
N-Pentylaminomethane-1,1-diphosphonic acid;
```

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C        K1=10.55       2002MKc (51804)2614
                                          B(ZnH2L)=23.79
                                          B(ZnHL)=19.13
                                          B(ZnH-1L)=0.64
                                          B(ZnH-2L)=-9.85
B(ZnH2L2)=36.53, B(ZnHL2)=26.31, B(Zn4H3L3)=69.23.
********************************************************************************
C6H17N2O3P            H2L                        (7486)
N,N,N'-Trimethyldiaminoethane-N'-methylphosphonic acid;
(CH3)2N.CH2CH2.N(CH3)CH2PO3H2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=8.41        2001DSa (51817)2615
                                          K(ZnL+H)=4.7
                                          K(ZnL+OH)=4.7
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=8.41        2001DSa (51818)2616
                                          K(ZnL+H)=4.7
                                          K(Zn+OH)=4.7
********************************************************************************
C6H17N3                L                      CAS 54473-27-7  (171)
1,1,1-Tris(aminomethyl)propane; (H2N.CH2)3C.CH2.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       cal KNO3   25°C 0.50M C   H                   1980SVa (51835)2617
DH1=-22.7 kJ mol-1,DS1=55.6, DH(K2)=-20.9,DS2=13, also ZnHL,Zn(OH)L,Zn(OH)2L
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M C        K1=6.899  B2=11.25  1977MSc (51836)2618
********************************************************************************
C6H17N3                L                      CAS 35513-87-2  (292)
1,4,9-Triazanonane, 3-Azaheptane-1,7-diamine; H2NCH2CH2NHCH2CH2CH2CH2NH2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M C        K1=6.34   B2=10.46  1975BPd (51847)2619
                                          K(ZnL+OH)=5.48
                                          K(ZnL+2(OH))=8.29
                                          K(Zn+HL)=4.36
                                          K(Zn+2HL)=8.31
********************************************************************************
C6H17N3                L                      CAS 56-18-8  (968)
1,5,9-Triazanonane, 4-azaheptane-1,7-diamine; H2N.CH2.CH2.CH2.NH.CH2.CH2.CH2.NH2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
```

```
Zn++       gl  NaClO4 25°C 0.10M U   H    K1=7.94        1996IFb (51882)2620
                                           *K(ZnL)=-8.58
DH(K1)=-22.0 kJ mol-1, DS(K1)=77.8 J K-1 mol-1.
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 20°C 0.10M U                       1991WBa (51883)2621
                                           B(ZnHL2)=22.83
-------------------------------------------------------------------------------
Zn++       gl  KNO3   40°C 1.00M C T H    K1=8.14        1974DFa (51884)2622
                                           K(ZnL+OH)=5.38
DH(K1)=-5.8, DH(ZnLOH)=-4.7 kJ mol-1 (40 C). At 25 C: K1=8.36 (8.38 by
polarography), K(ZnL+OH)=5.57
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=6.6    B2=10.30  1973AHc (51885)2623
-------------------------------------------------------------------------------
Zn++       cal KCl    25°C 0.10M U   H                   1966PNa (51886)2624
DH(K1)=-22.6 kJ mol-1, DS=75 J K-1 mol-1; DH(ZnL+OH)=-15.9, DS=47
-------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U        K1=7.92        1966VAa (51887)2625
                                           K(ZnL+OH)=5.2
*******************************************************************************
C6H17N3O                L                       CAS 58145-14-5  (7964)
2-Hydroxy-N,N-bis(2-aminoethyl)ethylamine;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  NaCl   25°C 0.16M U        K1=9.55        2001SRa (51922)2626
                                           K(Zn+H2L)<2
                                           K(Zn+HL)<5
                                           *K(ZnL)=-8.19
                                           *K(ZnH-1L)=-11.0
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=8.34        1998XKb (51923)2627
                                           B(ZnH-1L)=0.38
                                           B(ZnH-2L)=-9.19
*******************************************************************************
C6H18N2O4P2           H2L                        (7261)
1,2-Diaminoethane-N,N'-bis-(dimethylenemethylphosphinic acid); (CH2NHCH2PO(OH)CH3)2
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.10M M        K1=7.64        1996BCa (51927)2628
Medium: 0.1 M Me4NNO3.
*******************************************************************************
C6H18N2O6P2           H4L                        (1363)
N,N'-Dimethyldiaminoethane-N,N'-dimethylphosphonic acid;
CH3N(CH2PO3H2).CH2.CH2.N(CH2.PO3H2)CH3
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=13.07       2001DSa (51941)2629
```

						K(ZnL+H)=5.54		
						K(ZnL+OH)=3.0		
						K(ZnHL+H)=4.5		

Zn++	gl	KNO3	25°C	0.10M	C	K1=13.07	2001DSa	(51942)2630
						K(ZnL+H)=5.54		
						K(ZnHL+H)=4.5		
						K(ZnL+OH)=3.0		

****

C6H18N2O6P2 H4L (7487)
N,N-Dimethyldiaminoethane-N',N'-dimethyldiphosphonic acid;
(CH3)2N.CH2CH2.N(CH2PO3H2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=15.04	2001DSa	(51961)2631
							K(ZnL+H)=5.42		
							K(ZnL+OH)=1.7		
							K(ZnHL+H)=3.5		

Zn++	gl	KNO3	25°C	0.10M	C	K1=15.04	2001DSa	(51962)2632
						K(ZnL+H)=5.42		
						K(ZnHL+H)=3.5		
						K(ZnL+OH)=1.7		

****

C6H18N4 L Trien-tetramine CAS 112-24-3 (11)
1,4,7,10-Tetraazadecane; H2N.CH2.CH2.NH.CH2.CH2.NH.CH2.CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C		B2=17.02	2002KKa	(52049)2633
							B(ZnH2L2)=35.38		
							B(ZnHL2)=26.51		
							B(ZnHL)=17.43		

Zn++	gl	NaClO4	25°C	0.10M	U		1996IFb	(52050)2634
						*K(ZnL)=-8.79		

Zn++	gl	NaCl	25°C	0.15M	U	B2=19.18	1987DSb	(52051)2635
						B(ZnH2L)=23.75		
						B(ZnH2L2)=35.94		
						B(ZnHL2)=27.89		

Zn++	gl	KNO3	25°C	1.00M	C	H	K1=12.14	1982ABc	(52052)2636
							B(ZnHL)=17.15		

By calorimetry: DH1=-36.4 kJ mol-1, DS1=110.5

Zn++	gl	diox/w	25°C	50%	U		K1=12.05	1979LPa	(52053)2637
							K(Zn+HL)=6.90		

```
Zn++       gl  diox/w 25°C  50%  C        K1=12.05  B2=18.95  1979MPe (52054)2638
Medium: 50% v/v dioxan/H2O, 0.1 M KNO3. By calorimetry: DH(K1)=-29.7
kJ mol-1, DS=131 J K-1 mol-1. DH(K2)=-30.4.
--------------------------------------------------------------------------------
Zn++       gl  alc/w  25°C  65%  U  I     K1=12.26       1972RBa (52055)2639
Medium: 40-99% MeOH, 0.1 M NaClO4. K1(40%)=12.94; K1(99%)=14.61
--------------------------------------------------------------------------------
Zn++       cal KNO3   25°C 0.10M U   H                  1965WHa (52056)2640
DH(K1)=-34.7 kJ mol-1, DS=112.9 J K-1 mol-1
--------------------------------------------------------------------------------
Zn++       cal KCl    25°C 0.10M U   H                  1961SPb (52057)2641
DG(K1)=-68.06 kJ mol-1, DH=-37.2, DS=105 J K-1 mol-1
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U        K1=11.9        1957RSb (52058)2642
--------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C  1.0M U   H                  1952JHa (52059)2643
Medium: 1 M (KNO3+KCl). DH(K1)=-16.7 kJ mol-1
--------------------------------------------------------------------------------
Zn++       gl  oth/un 30°C  1.0M U T      K1=11.94       1952JHa (52060)2644
40 C: K1=11.81
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U        K1=12.1        1950SCa (52061)2645
                                          K(Zn+HL)=7.3
********************************************************************************
C6H18N4                 L    Tren             CAS 4097-89-6  (817)
2,2',2''-Triaminotriethylamine; (H2N.CH2.CH2)3N
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U                        1996IFb (52166)2646
                                          *K(ZnL)=-9.87
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C  1.0M U T H    K1=15.20       1995CXa (52167)2647
                                          *K(ZnL(H2O))=-10.68
Data for 35 and 45 C. By calorimetry, DH(*K1)=46.0 kJ mol-1, DS(*K1)=-51
J K-1 mol-1.
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 1.00M C        K1=15.00       1994AGa (52168)2648
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.10M C        K1=14.5        1982MMb (52169)2649
--------------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.10M C        K1=14.40       1975JTa (52170)2650
--------------------------------------------------------------------------------
Zn++       nmr oth/un 25°C 0.50M U    M   K1=14.53       1973RBb (52171)2651
                                          K(ZnL+en)=1.15
                                          K(ZnL+Gly)=1.00
                                          K(ZnL+OH)=2.90
--------------------------------------------------------------------------------
Zn++       oth KNO3   20°C 0.10M U        K1=13.76       1971AWa (52172)2652
--------------------------------------------------------------------------------
```

```
Zn++       cal KCl    25°C 0.10M U   H                    1960PCa (52173)2653
DG(K1)=-82.56 kJ mol-1, DH=-57.5, DS=84 J K-1 mol-1
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U        K1=14.65       1950PSa (52174)2654
********************************************************************************
C6H19N2O9P3           H6L                        (8063)
N-Methylethylenediamine-N,N',N'-trimethylenetris(phosphonic acid);
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=18.01       2001DSa (52233)2655
                                         K(ZnL+H)=5.95
                                         K(ZnH2L+H)=3.90
                                         K(ZnHL+H)=4.94
                                         K(ZnH3L+H)=2.9
K(ZnL+OH)=1.9
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=18.01       2001DSa (52234)2656
                                         K(ZnL+H)=5.95
                                         K(ZnHL+H)=4.94
                                         K(ZnH2L+H)=3.90
                                         K(ZnH3L+H)=2.9
K(ZnL+OH)=1.9
********************************************************************************
C6H20N2O8P4           H4L                     CAS 938-16-3  (4402)
Ethylenediaminetetra(methylenephosphonous acid);
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=7.60        1971MMh (52245)2657
********************************************************************************
C6H20N2O12P4          H8L    EDTPA            CAS 1429-50-1  (434)
Ethane-1,2-bis(iminobis(methylenephosphonic acid)); ((H2O3PCH2)2NCH2.)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=19.1        2001DSa (52285)2658
                                         K(ZnL+H)=8.22
                                         K(ZnH2L+H)=4.94
                                         K(ZnHL+H)=5.92
                                         K(ZnH3L+H)=4.1
K(ZnL+OH)=1.7
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=19.1        2001DSa (52286)2659
                                         K(ZnL+H)=8.22
                                         K(ZnHL+H)=5.92
                                         K(ZnH2L+H)=4.94
                                         K(ZnH3L+H)=4.1
K(ZnL+OH)=1.7
--------------------------------------------------------------------------------
```

Zn++	gl	NaCl	37°C	0.15M	C	K1=13.16 K(ZnL+H)=9.09 K(ZnH2L+H)=5.17 K(ZnHL+H)=6.76 K(ZnH3L+H)=4.30	1995JWa	(52287)2660
Zn++	gl	KNO3	25°C	0.10M	C	K1=18.76 K(ZnL+H)=8.31 K(ZnHL+H)=6.06 K(ZnH2L+H)=4.99 K(ZnH3L+H)=3.10	1976MMa	(52288)2661
Zn++	gl	oth/un	25°C	0.10M	U	K(ZnL+H)=8.34 K(ZnHL+H)=6.05 K(ZnH2L+H)=4.93 K(ZnH3L+H)=4.46	1971MMb	(52289)2662
Zn++	gl	KCl	25°C	0.10M	U	K1=17.05 K(Zn+HL)=13.52 K(Zn+H2L)=9.90 K(Zn+H3L)=6.99 K(Zn+H4L)=4.73 K(Zn+H5L)=2.18	1967KDa	(52290)2663

****

C7H4N2O6 HL CAS 2460-59-5 (3139)

3,5-Dinitrosalicylaldehyde; HO.C6H2(NO2)2.CHO

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	NaClO4	25°C	0.10M	U		K1=0.75	1966PMa	(52395)2664

****

C7H4N2O7 H2L CAS 609-99-4 (400)

3,5-Dinitrosalicylic acid; (O2N)2.C6H2(OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	30°C	0.10M	U		K1=3.32	1975JKa	(52448)2665
Zn++	EMF	NaClO4	30°C	0.10M	U		K1=3.32	1972JKa	(52449)2666
Zn++	gl	KNO3	35°C	0.10M	U		K1=3.70	1970DDa	(52450)2667

****

C7H4O3Br2 H2L CAS 3147-55-5 (1116)

3,5-Dibromosalicylic acid; C6H2(OH)(Br)2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	30°C	0.10M	U	T	K1=6.04	1975JKa	(52539)2668

****

C7H4O3Cl2 H2L CAS 320-72-9 (1117)
3,5-Dichlorosalicylic acid; C6H2(OH)(Cl)2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	30°C	0.10M	U	T	K1=5.47	1975JKa (52552)	2669

****

C7H4O7 H3L Meconic acid CAS 497-59-6 (3723)
3-Hydroxy-4-pyrone-2,6-dicarboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.50M	U		K1=7.25	1967CBb (52562)	2670

****

C7H5NOS HL CAS 7405-23-4 (3177)
4-Hydroxybenzothiazole;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U		K1=6.90 B2=12.82	1960FFa (52587)	2671

****

C7H5NO4 H2L Quinolinic acid CAS 89-00-9 (567)
2,3-Pyridinedicarboxylic acid; C5H3N.(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	30°C	0.10M	U	M	K1=4.82 B2=8.57 K(ZnL+Aspartate)=7.92 K(ZnL+Glutamate)=6.58 K(ZnL+Thiomalate)=4.56 K(ZnL+Thiodiglycolate)=4.16	1979SJb (52614)	2672
Zn++	gl	KNO3	25°C	0.10M	U		K1=4.8 B2=8.5	1958YYa (52615)	2673

****

C7H5NO4 H2L CAS 499-80-9 (566)
2,4-Pyridinedicarboxylic acid; C5H3N.(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	30°C	0.10M	U	M	K1=7.02 B2=13.02 K(ZnL+Aspartate)=7.94 K(ZnL+Thiomalate)=4.90 K(ZnL+Glutamate)=7.11 K(ZnL+Thiodiglycolate)=4.01	1979SJb (52643)	2674
Zn++	gl	KNO3	25°C	0.10M	U		K1=5.0 B2=8.8	1958YYa (52644)	2675

****

C7H5NO4 H2L CAS 100-26-5 (2528)
2,5-Pyridinedicarboxylic acid, Isocinchomeronic acid; C5H3N.(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo

Zn++ gl KNO3 20°C 0.10M U T H K1=4.33 B2=7.68 1983PSd (52662)2676
30 C: K1=4.22, K2=3.26; 40 C: K1=4.13, K2=3.19

****

C7H5NO4 H2L Dipicolinic aci CAS 449-83-2 (418)
2,6-Pyridinedicarboxylic acid; C5H3N.(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo

Zn++ gl KNO3 35°C 0.10M C M K1=4.78 1999DSb (52722)2677
B(ZnAL)=8.61
A is thiamine hydrochloride.

Zn++ gl KNO3 25°C 0.10M M M K1=5.63 1996AEa (52723)2678
Data for ternary complexes with aspartic acid, serine, asparagine and
N-(2-acetamido)iminodiacetic acid

Zn++ gl NaClO4 25°C 0.20M M M 1996VBa (52724)2679
K(Zn(ala)+L)=4.60
K(Zn(phe)+L)=4.32
K(Zn(tyr)+L)=4.34
K(Zn(trp)+L)=4.39
K(Zn(gly-gly)+L)=2.99, K(Zn(gly-ala)+L)=3.06, K(Zn(en)+L)=5.00.

Zn++ gl KCl 25°C 1.00M C M K1=6.43 B2=12.46 1984SMc (52725)2680
Ternary complexes with 2-amino-3-phosphonopropionic acid (APP) and pyridoxal
-5'-phosphate- APP Schiff base.

Zn++ gl NaNO3 20°C 0.10M U K1=6.35 B2=11.88 1960ANb (52726)2681

Zn++ gl KCl 30°C 0.10M U K1=7.0 B2=13.0 1957TBb (52727)2682

****

C7H5NO4 HL CAS 62-23-7 (489)
4-Nitrobenzoic acid; O2N.C6H4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo

Zn++ gl diox/w 25°C 50% U M K1=1.83 1968GPd (52902)2683
K(Zn(bpy)+L)=1.86
Medium: 50% dioxan, 0.1 M NaClO4

****

C7H5NO4 HL CAS 97-51-8 (1887)
5-Nitrosalicylaldehyde; O2N.C6H3(OH).CHO

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo

Zn++ gl diox/w 25°C 50% U T K1=3.27 B2=5.96 1973CGc (52932)2684
Medium: 50% dioxan, 0.3 M NaClO4. Temperature range 15-50 C
K1(15 C)=3.34, K1(50 C)=3.03, K2(15 C)=2.80, K2(50 C)=2.55

```
--------------------------------------------------------------------------------
Zn++       sp  NaClO4 25°C 0.10M U        K1=2.01        1966PMa (52933)2685
********************************************************************************
C7H5NO4S2             H2L                        (3178)
4-Hydroxybenzothiazole-7-sulfonic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U        K1=6.1    B2=10.4   1962FFa (52947)2686
********************************************************************************
C7H5NO5               H2L    Nitrosalicylic   CAS 85-38-1  (1416)
2-Hydroxy-3-nitrobenzoic acid; HO.C6H3(NO2).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 30°C 0.10M U      T K1=5.73        1975JKa (52966)2687
--------------------------------------------------------------------------------
Zn++       EMF NaClO4 30°C 0.10M U        K1=5.73        1972JKa (52967)2688
********************************************************************************
C7H5NO5               H2L    Nitrosalicylic   CAS 96-97-9  (148)
2-Hydroxy-5-nitrobenzoic acid; HO.C6H3(NO2).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 35°C 0.10M U        K1=5.12   B2=8.37   1980ABb (53026)2689
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 30°C 0.10M U        K1=5.38        1975JKa (53027)2690
--------------------------------------------------------------------------------
Zn++       oth oth/un 30°C 0.10M U        K1=6.65   B2=12.90  1972KAd (53028)2691
********************************************************************************
C7H5NO5               H3L                        CAS 499-51-4  (3150)
4-Hydroxypyridine-2,6-dicarboxylic acid; HO.C5H2N(COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C 0.10M U        K1=9.3    B2=17.8   1963ANd (53067)2692
                                         K(ZnL+H)=5.52
                                         K(ZnL2+H)=5.81
                                         K(ZnHL2+H)=5.11
********************************************************************************
C7H5NS2                HL                         CAS 149-30-3  (3752)
2-Mercaptobenzo-1,3-thiazole;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       dis NaClO4 20°C 0.10M U        K1=3.25   B2=5.74   1968NLc (53084)2693
********************************************************************************
C7H5O2Br               HL                         CAS 4584-68-3  (2691)
3-Bromotropolone;
--------------------------------------------------------------------------------
```

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  50%  U        K1=6.9    B2=12.7   1954BFd (53111)2694
*************************************************************************
C7H5O2Br               HL                       CAS 1761-61-1  (1886)
5-Bromosalicylaldehyde; Br.C6H3(OH).CHO
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U T      K1=3.81   B2=6.94   1973CGc (53129)2695
Medium: 50% dioxan, 0.3 M NaClO4.  Temperature range 15-50 C
K1(15 C)=3.88, K1(50 C)=3.67, K2(15 C)=3.12, K2(50 C)=2.93
*************************************************************************
C7H5O2Cl               HL                         (3747)
2-Hydroxy-6-chlorobenzaldehyde (6-chlorosalicylaldehyde)
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  75%  U        K1=5.33        1978RJa (53154)2696
*************************************************************************
C7H5O2Cl               HL                       CAS 535-80-8  (1368)
3-Chlorobenzoic acid; Cl.C6H4.COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U    M   K1=1.99        1968GPd (53171)2697
                                        K(Zn(bpy)+L)=2.10
Medium: 75% dioxan, 0.1 M NaClO4
*************************************************************************
C7H5O2Cl               HL                       CAS 1927-94-2  (3143)
3-Chlorosalicylaldehyde; HO.C6H3(Cl).CHO
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  75%  U        K1=4.51        1978RJa (53185)2698
-------------------------------------------------------------------------
Zn++       sp  NaClO4 25°C 0.10M U        K1=2.39        1966PMa (53186)2699
*************************************************************************
C7H5O2Cl               HL                       CAS 635-93-8  (3145)
5-Chlorosalicylaldehyde; HO.C6H3(Cl).CHO
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U T      K1=3.65   B2=6.68   1973CGc (53220)2700
Medium: 50% dioxan, 0.3 M NaClO4.  Temperature range 15-50 C
K1(15 C)=3.77, K1(50 C)=3.38, K2(15 C)=3.08, K2(50 C)=2.97
*************************************************************************
C7H5O2I                HL                       CAS 60032-63-5  (6282)
5-Iodo-salicylahdehyde; I(OH)C6H3.CHO
-------------------------------------------------------------------------
```

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=5.65	1978RJa	(53268)2701

C7H5O3As HL CAS 50722-40-2 (8008)
2-Arsenosobenzoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	alc/w	35°C	20%	U		K1=3.14	1973SPf	(53276)2702

Medium: 20% EtOH/H2O, 0.1 M KNO3.

C7H5O3Br H2L CAS 3883-95-2 (1111)
3-Bromosalicylic acid; Br.C6H3(OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	30°C	0.10M	U	T	K1=6.42	1975JKa	(53287)2703

C7H5O3Cl H2L CAS 321-14-2 (1113)
5-Chlorosalicylic acid; Cl.C6H3(OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	30°C	0.10M	U		K1=7.32	1975JKa	(53333)2704

C7H6NO2Cl HL CAS 7120-43-6 (3782)
5-Chloro-2-hydroxybenzaldehyde oxime (5-chlorosalicylaldoxime)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	20°C	75%	U		K1=5.8 B2=11.60	1965BEb	(53385)2705

Medium: 75% dioxan, 0.1 M NaClO4

C7H6NO3Br H2L CAS 87353-69-3 (207)
4-Bromosalicylhydroxamic acid; Br.C6H3(OH).CO.NH.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	EMF	diox/w	30°C	50%	U		K1=3.82	1977DJa	(53393)2706

Medium: 50% dioxan, 0.1 M NaClO4

C7H6NO3Br H2L CAS 5798-94-7 (206)
5-Bromosalicylhydroxamic acid; Br.C6H3(OH).CO.NH.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	EMF	diox/w	30°C	50%	U		K1=3.87	1977DJa	(53404)2707

Medium: 50% dioxan, 0.1 M NaClO4

C7H6NO3Cl H2L (205)
3-Chlorosalicylhydroxamic acid; Cl.C6H3(OH).CO.NH.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	EMF	diox/w	30°C	50%	U		K1=3.62		1977DJa	(53413)2708

Medium: 50% dioxan, 0.1 M NaClO4

****

C7H6N2 L Benzimidazole CAS 51-17-2 (52)
Benzimidazole; C7H6N2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	C	M	K1=2.45		2000MSa	(53456)2709
							B(ZnAL)=8.78			
							B(ZnH-1AL)=1.85			
							B(Zn2A2L)=18.63			
							B(Zn2H-1A2L)=12.02			
Zn++	gl	KNO3	35°C	0.10M	C	M	K1=2.40		1997PSb	(53457)2710
							K(ZnL+A)=7.18			
Zn++	vlt	alc/w	25°C	20%	U		K1=1.78	B2=2.86	1979KBc	(53458)2711
							K3=0.6			

H2A is aspartic acid.

H2A is thiamine orthophosphoric acid.

****

C7H6N2O HL (1926)
8-Hydroxyimidazo[1,2-a]-pyridine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	C		K1=6.55	B2=12.04	1993YDa	(53479)2712

In 50% v/v dioxan/water. Electrolyte: 0.1M KNO3.

****

C7H6N2OS HL CAS 26278-79-5 (3179)
2-Amino-4-hydroxybenzothiazole;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U		K1=8.0	B2=15.4	1962FFa	(53485)2713

****

C7H6N2O4 HL CAS 1595-15-9 (3754)
2-Hydroxy-5-nitrobenzaldehyde oxime (5-nitrosalicylaldoxime)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	20°C	75%	U		K1=5.3	B2=10.90	1965BEb	(53490)2714

Medium: 75% dioxan, 0.1 M NaClO4

****

C7H6N2O4 H2L CAS 2683-49-0 (3753)
4-Aminopyridine-2,6-dicarboxylic acid (4-aminodipicolinic acid)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	20°C	0.10M	U		K1=8.15	B2=16.05	1965ABa	(53498)2715

****

C7H6N2O5 H2L CAS 831-51-6 (208)
5-Nitrosalicylhydroxamic acid; O2N.C6H3(OH).CO.NH.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	EMF	diox/w	30°C	50%	U		K1=2.94		1977DJa	(53520)2716

Medium: 50% dioxan, 0.1 M NaClO4

****

C7H6OS HL Thiobenzoic CAS 98-91-9 (6294)
Thiobenzoic acid; C6H5.COSH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	30°C	60%	U		K1=5.4	B2=9.9	1972OTc	(53553)2717

Medium: 60% v/v dioxan, 1 M (K,Na)NO3

****

C7H6O2 HL Salicylaldehyde CAS 90-02-8 (193)
2-Hydroxybenzaldehyde, Salicylaldehyde; HO.C6H4.CHO

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	30°C	0.10M	U	M	K1=2.93		1991RSc	(53602)2718
							B(Zn(val)L)=9.25			
							B(Zn(val)2L2)=15.10			
							B(Zn(phe)L)=9.15			
							B(Zn(phe)2L2)=15.05			

Evidence for formation of Schiff base structure in ternary complexes.
B(Zn(trp)L)=9.15, B(Zn(trp)2L2)=15.10.

Zn++	gl	diox/w	30°C	75%	U		K1=6.71		1978RJa	(53603)2719
Zn++	gl	KCl	25°C	0.50M	U	M			1971LLa	(53604)2720
							B(ZnLA)=7.78			
							B(ZnL2A2)=14.9			
							B(ZnL(Ala))=9.56			
							B(ZnL(b-Ala))=8.40			

B(ZnL(Gly))=9.65; B(ZnL2(Ala)2)=16.23; B(ZnL2(Gly)2)=16.73;
B(ZnL2(b-Ala)2)=16.20. A=ethylamine

Zn++	gl	KCl	25°C	0.50M	U	M	K1=2.87	B2=5.00	1968LBa	(53605)2721
							B(ZnL(Gly))=9.65			
							B(ZnL(Gly)2)=13.42			
							B(ZnL2(Gly)2)=16.73			

```
--------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  75%  U        K1=6.26        1964JVa (53606)2722
Medium: 75% dioxan, 0.1 M NaClO4
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U        K1=4.50   B2=8.10   1947MMa (53607)2723
********************************************************************************
C7H6O2                 HL    Tropolone        CAS 533-75-5  (3129)
2-Hydroxycyclohepta-2,4,6-trien-1-one;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       sp  NaClO4 25°C 0.10M U        K1=5.84        1968OWa (53654)2724
--------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  50%  U        K1=7.5    B2=14.0   1953BFa (53655)2725
                                         K3=3.5
********************************************************************************
C7H6O2                 HL    Benzoic Acid     CAS 65-85-0  (462)
Benzenecarboxylic acid; C6H5.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C  I M   K1=1.06        1985BSd (53798)2726
                                         K(Zn(phen)+L)=0.95
In 50% dioxan: K1=2.27, K(Zn(phen)+L)=2.26. In 50% EtOH: K1=1.80, K=1.88
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.00  U  I     K1=1.70        1979TPa (53799)2727
--------------------------------------------------------------------------------
Zn++       gl  KNO3   30°C 0.40M U        K1=0.74        1970BTa (53800)2728
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U    M   K1=2.35        1968GPd (53801)2729
                                         K(Zn(bpy)+L)=2.40
Medium: 50% dioxan, 0.1 M NaClO4
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.10M U        K1=0.9         1960YYa (53802)2730
********************************************************************************
C7H6O2S               H2L    Thiosalicylic    CAS 147-93-3  (236)
2-Mercaptobenzoic acid; HS.C6H4.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  alc/w  25°C  50%  M T H    K1=8.19        1992MSf (53892)2731
                                         B(Zn(en)L)=12.65
Medium: 50% v/v MeOH/H2O, 0.10 M NaClO4. Data for 40 and 55 C.
DH(K1)=29.2 kJ mol-1, DS(K1)=245 J K-1 mol-1.
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C 0.10M U        K1=9.09   B2=17.10  1977WVa (53893)2732
--------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C 0.10M U        K1=9.18   B2=19.52  1974AAa (53894)2733
--------------------------------------------------------------------------------
Zn++       gl  alc/w  50°C  45%  U T H    K1=8.84   B2=15.22  1968RSh (53895)2734
```

Medium: 45% EtOH, 0.15 M. K1=8.45(30 C),8.60(40 C); K2=5.99(30 C),6.20(40 C)
DH(K1)=27 kJ mol-1(25 C), DS=250 J K-1 mol-1; DH(K2)=38, DS=242

Zn++ gl alc/w 30°C 50% U K1=9.1 B2=20.30 1967KNa (53896)2735

Medium: 50% EtOH, 0.001 M NaClO4

****

C7H6O2S2 H2L CAS 89677-36-1 (5448)

3-(2-Thiophene)-2-mercaptopropenoic acid; C4H3S.CH:C(SH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	0.10M	U		K1=11.0 B2=19.82	1977WVa	(53927)2736

****

C7H6O3 H2L CAS 95-01-2 (4407)

2,4-Dihydroxybenzaldehyde; (OH)2.C6H3.CHO

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=9.56	1978RJa	(53937)2737
Zn++	gl	diox/w	30°C	50%	U			1969VMa	(53938)2738
							K(Zn+HL)=3.60		
							K(ZnHL+HL)=2.80		

Medium: 50% dioxan, 0.1 M NaClO4

****

C7H6O3 H2L Salicylic acid CAS 69-72-7 (14)

2-Hydroxybenzoic acid, Salicylic acid; HO.C6H4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	cal	alc/w	25°C	100%	U	H		1990PJa	(54097)2739

Medium: MeOH. DG(K1)=-28.0 kJ mol-1, DH=27; DG(B2)=-44.5; DH=42

Zn++	gl	alc/w	25°C	100%	M			1988LTa	(54098)2740
							K(Zn+HL)=4.9		
							K(Zn+2HL)=7.8		

Medium: MeOH

Zn++	gl	NaNO3	35°C	0.10M	U	M T	K1=7.10	1985KSc	(54099)2741
							K(ZnL+CMP)=1.61		

H2CMP=cytidine-5'-monophosphoric acid

Zn++	gl	KNO3	30°C	0.50M	U	M T	K1=7.83	1981EKa	(54100)2742
							B(ZnHL2(pyridoxamine))=30.71		
							B(ZnH3L2(pyridoxamine))=46.71		
							B(ZnH4L2(pyridoxamine))=54.22		

Zn++	gl	NaClO4	30°C	0.10M	U		K1=8.86	1975JKa	(54101)2743

Zn++	gl	diox/w	30°C	75%	U		K1=9.20	1964JVa	(54102)2744

Medium: 75% dioxan, 0.1 M NaClO4

Zn++ gl KCl 20°C 0.10M U K1=6.85 1958PEe (54103)2745

****

C7H6O3S H2L CAS 55927-33-8 (5445)

3-Furyl-2-mercaptopropenoic acid; C4H3O.CH:C(SH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	0.10M	U		K1=11.15 B2=20.55	1977WVa	(54444)2746

****

C7H6O4 H3L Resorcylic acid CAS 89-86-1 (876)

2,4-Dihydroxybenzoic acid, b-Resorcylic acid; C6H3(OH)2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	alc/w	25°C	50%	M	M	K1=7.63	1983ADb	(54509)2747
							K(Zn(phen)+L)=7.36		

Medium: 50% v/v EtOH/H2O, 0.10 M NaNO3.

Zn++	gl	NaClO4	30°C	0.10M	U		K1=10.34	1975JKa	(54510)2748
							B(ZnHL)=10.34		

****

C7H6O4 H3L CAS 409-79-9 (1115)

2,5-Dihydroxybenzoic acid; C6H3(OH)2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	30°C	0.10M	U	T	K1=9.34	1975JKa	(54577)2749

****

C7H6O4 H3L Protocatechuic CAS 99-50-3 (875)

3,4-Dihydroxybenzoic acid; C6H3(OH)2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.20M	M	M	K1=8.913 B2=15.62	1994VBc	(54646)2750
							B(Zn(ala)L)=13.504		
							B(Zn(phe)L)=13.349		
							B(Zn(tyr)L)=13.466		
							B(Zn(trp)L)=13.712		

B(Zn(gly-gly)L)=12.060, B(Zn(gly-ala)L)=12.125.

Zn++	gl	NaNO3	30°C	0.10M	U		K1=8.13 B2=12.68	1968JHa	(54647)2751

Zn++	gl	NaClO4	30°C	0.10M	U		K1=9.84 B2=17.39	1966APb	(54648)2752

Zn++	gl	KNO3	30°C	0.10M	U		K1=8.91 B2=15.62	1963MNc	(54649)2753

****

C7H6O5 H4L Gallic acid CAS 149-91-7 (446)

3,4,5-Trihydroxybenzoic acid; C6H2(OH)3.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ EMF KNO3 25°C 0.10M U 1985SCd (54743)2754
B(Zn2L)=11.4
Method: divalent cation liquid ion exchange electrode
****
C7H6O5S H2L CAS 29848-93-9 (3151)
Salicylaldehyde-5-sulfonic acid; (5-Sulfosalicylaldehyde)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.09M U I K1=2.88 B2=4.55 1972MSa (54793)2755
Range of ionic strength 0-0.71. K1(I=0)=3.61, K1(I=0.71)=2.26, B2(I=0)=5.43, B2(I=0.71)=4.15

Zn++ gl oth/un 25°C 0.10M U K1=3.00 B2=5.4 1948CMa (54794)2756
****
C7H6O6S H3L CAS 5965-83-3 (399)
5-Sulfosalicylic acid, 2-Hydroxy-5-sulfobenzoic; HO3S.C6H3(OH).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ ISE NaClO4 25°C 1.0M U K1=6.69 B2=10.87 1968MNb (54915)2757

Zn++ gl KCl 20°C 0.10M U K1=6.05 B2=10.7 1958PEe (54916)2758
****
C7H6O6S2 H3L (5447)
3-(5-Sulfo-2-furyl)-2-mercaptopropenoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 0.10M U K1=10.61 B2=19.53 1977WVa (55088)2759
in water medium, K1=8.26, B2=15.22
****
C7H7N L CAS 100-69-6 (299)
2-Vinylpyridine; C5H4N.CH:CH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M U K1=0.9 1974ILa (55113)2760
****
C7H7N L CAS 100-43-6 (294)
4-Vinylpyridine; C5H4N.CH:CH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M U K1=1.6 1974ILa (55121)2761
****
C7H7NO L CAS 1112-62-9 (497)

2-Acetylpyridine; C5H4N.CO.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	kin	oth/un	25°C	0.10M	C		K1=1.55		1974COa (55130)	2762

****

C7H7NO L CAS 350-03-8 (1479)

3-Acetylpyridine; C5H4N.CO.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=0.65	B2=1.40	1986BLa (55136)	2763

****

C7H7NO L CAS 1122-54-9 (494)

4-Acetylpyridine; C5H4N.CO.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=0.90	B2=1.32	1983LRa (55144)	2764

****

C7H7NO2 HL Anthranilic CAS 118-92-3 (1589)

2-Aminobenzoic acid, Anthranilic acid; H2N.C6H4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	30°C	0.10M	U	M	K1=1.99		1989BBg (55193)	2765
							K(ZnA+L)=2.91			
							B(ZnAL)=11.45			

H2A is 8-hydroxyquinoline-5-sulfonic acid.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	oth/un	25°C	0.0	U				1960LUa (55194)	2766
							Kso=-9.75			
Zn++	sp	oth/un	25°C	0.0	U		K1=2.57		1960LUb (55195)	2767
Zn++	gl	diox/w	35°C	50%	U		K1=2.6		1958YSa (55196)	2768

****

C7H7NO2 H2L Salicylaldoxime CAS 94-67-7 (1486)

2-Hydroxybenzaldehyde oxime; HO.C6H4.CH:N.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C	M	K1=5.40	B2= 9.66	1990DAb (55295)	2769

Also ternary complexes with bpy, ida, mida, ada and nta.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=5.40	B2= 9.66	1990DAb (55296)	2770
Zn++	gl	diox/w	20°C	75%	U				1965BEb (55297)	2771
							K(Zn+HL)=6.3			
							K(ZnHL+HL)=7.2(?)			

Medium: 75% dioxan, 0.1 M NaClO4

Zn++ gl alc/w 20°C 50% U 1959HOa (55298)2772
K(Zn+HL) < 5.2

****

C7H7NO2 HL Salicylamide CAS 65-45-2 (3155)
2-Hydroxybenzamide; HO.C6H4.CO.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=6.17	1964JVa	(55324)2773

Medium: 75% dioxan, 0.1 M NaClO4

****

C7H7NO2 HL 2-Pyridylacetic CAS 16179-97-8 (2211)
2-Pyridylethanoic acid; C5H4N.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.50M	U		K1=2.16 B2=5.35	1971FLa	(55343)2774
Zn++	gl	diox/w	35°C	50%	U	T	K1=4.33 B2=7.73	1966WRb	(55344)2775

Medium: 50% dioxan, 0.1 M KNO3. K1=7.15(15 C), 6.41(35 C); K2=6.22(15 C), 5.36(25 C)

****

C7H7NO2 HL CAS 39825-16-6 (3756)
4-Methyl-2-nitrosophenol; CH3.C6H3(N:O).OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U		K1=5.13	1961SHa	(55403)2776

Medium: 50% dioxan, 0.1 M KNO3

****

C7H7NO2 HL CAS 3222-47-7 (3154)
6-Methylpyridine-2-carboxylic acid; CH3.C5H3N.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	20°C	0.10M	U		K1=4.52 B2=8.27	1960ANb	(55419)2777

****

C7H7NO2 HL CAS 495-18-1 (184)
Benzohydroxamic acid; C6H5.CO.NH.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C		K1=4.86 B2= 8.77	2000FEc	(55475)2778
Zn++	gl	NaNO3	25°C	0.10M	M	M	K1=4.90 B2= 9.18	1996KSc	(55476)2779

K(Zn(nta)+L)=3.40
K(Zn(ida)+L)=4.12
K(Zn(ada)+L)=3.97

H2ada: N-(2-acetamido)iminodiethanoic acid.

Zn++ gl diox/w 30°C 50% U K1=10.04 B2=18.11 1994JBb (55477)2780
Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4.

Zn++ gl KNO3 25°C 0.10M C M K1=4.85 B2= 8.50 1990DAc (55478)2781
Also ternary complexes with bpy, ida, mida, ada and nta.

Zn++ gl KNO3 25°C 0.10M C K1=4.85 B2= 8.50 1990DAc (55479)2782

Zn++ gl KNO3 25°C 0.10M C M 1989DAc (55480)2783
B(ZnA+L)=4.86
B(ZnB+L)=5.29
B(ZnC+L)=4.80
A: 2,2'-dipyridylamine; B: 5-nitro-1,10-phenanthroline;
C: 5-methyl-1,10-phenanthroline.

Zn++ gl NaClO4 35°C 0.10M U K1=4.95 B2=9.11 1980ABb (55481)2784

Zn++ gl diox/w 35°C 50% U K1=7.57 B2=13.19 1972ATa (55482)2785
Medium: 50% dioxan, I=0 corr.

Zn++ gl diox/w 25°C 70% U K1=5.35 B2=9.90 1969JSa (55483)2786
****
C7H7NO3 H2L CAS 89-57-6 (2675)
2-Hydroxy-5-aminobenzoic acid, 5-Aminosalicylic acid; H2N.C6H3(OH).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 37°C 0.15M C 1993WWa (55545)2787
B(ZnH-1L)=-0.95
****
C7H7NO3 H2L CAS 89-73-6 (204)
2-Hydroxybenzohydroxamic acid (salicylhydroxamic acid); HO.C6H4.CO.NHOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaNO3 25°C 0.10M C K1=5.92 2000KHa (55576)2788

Zn++ gl NaNO3 25°C 0.10M M M K1=6.02 B2=10.08 1996KSc (55577)2789
K(Zn(nta)+L)=3.89
K(Zn(nta)+H+L)=12.01
K(Zn(ida)+L)=5.00
K(Zn(ida)+H+L)=12.25
K(Zn(ada)+L)=4.62, K(Zn(ada)+H+L)=12.22.
H2ada: N-(2-acetamido)iminodiethanoic acid.

Zn++ EMF diox/w 30°C 50% U K1=4.83 1977DJa (55578)2790
Medium: 50% dioxan, 0.1 M NaClO4
****

C7H7NO3 H2L (1112)
4-Aminosalicylic acid; H2N.C6H3(OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	KNO3	20°C	1.0M	U		K1=0.65 ? B2=1.67 K3=1.34(?) K4=1.6(?)	1966NVa (55634)	2791

****
C7H7NO3 HL CAS 1197-10-0 (3759)
6-(Hydroxymethyl)pyridine-2-carboxylic acid; HO.CH2.C5H3N.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	oth/un	25°C	?	U		K1=4.34 B2=8.45	1962GOa (55647)	2792

****
C7H7NO4 HL CAS 17209-50-6 (886)
4-Methoxypyridine-2-carboxylic acid N-oxide; C5H3N(O)(OCH3).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	30°C	0.10M	U	T	K1=4.18 B2=6.76	1982RRa (55660)	2793

****
C7H7NO5S H2L CAS 3577-63-7 (3181)
5-Sulfoanthranilic acid; (5-sulfo-2-aminobenzoic acid)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	oth/un	35°C	0.01M	U		K1=2.90 B2=5.30	1956HSb (55672)	2794

****
C7H7NS L Thiobenzamide CAS 2227-79-4 (1660)
Thiobenzamide; C6H5.CS.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	non-aq	25°C	100%	U		K(ZnCl2+L)=2.97	1977SWa (55701)	2795

Medium: Et2O

****
C7H7N2O2F3S HL CAS 73255-69-3 (559)
2-(Trifluoromethanesulfonamidomethyl)pyridine; C5H4NCH2S(:O)2NHCF3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	45%	U		K1=5.90 B2=11.25	1982MYb (55711)	2796

Medium: 45% v/v dioxan/H2O, 0.01 M KNO3

****
C7H7N2O2SF3 L CAS 51061-76-8 (9290)
2-(Trifluoromethylsulfonylaminomethyl)pyridiine;

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  alc/w  25°C  80%  C        K1=5.25   B2=10.37  2003CKa (55718)2797
Medium: 80% MeOH/H2O, 0.1 M Me4NNO3.
**************************************************************************
C7H7N3                  L                        (6358)
7-Methyl-4-azabenzimidazole;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M C        K1=1.51        1992RKa (55729)2798
**************************************************************************
C7H7N3O2             H2L                      CAS 4463-97-2  (1654)
2,6-Pyridinedialdoxime;C5H3N.(CH:NOH)2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=5.9    B2=11.40  1963BFb (55738)2799
**************************************************************************
C7H7O2NS             H2L                      CAS 60587-83-9  (5449)
3-(2-Pyrrole)-2-mercaptopropenoic acid; C4H4N.CH:C(SH).COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  diox/w 25°C 0.10M U        K1=10.93  B2=19.87  1977WVa (55770)2800
**************************************************************************
C7H8NCl                 L                        CAS 95-74-9  (756)
3-Chloro-4-methylaniline; Cl.C6H3(CH3).NH2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       sp  diox/w 25°C 100%  U T H                    1976BSa (55788)2801
                                        K(ZnCl2+L)=1.89
At 10-50 C. DH = -24.2 kJ mol-1; DS = -44.3 J K-1 mol-1.
**************************************************************************
C7H8N2O                HL                       CAS 5451-39-8  (3157)
2-Acetylpyridine oxime; C5H4N.C(:N.OH).CH3
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaCl   25°C 0.10M C                        2003SSa (55796)2802
                                        B(0,1,1)=2.723
                                        B(0,1,2)=4.30
                                        B(-1,1,2)=-0.860
                                        B(-2,1,2)=-9.75
B(p,q,r): pH+qM+rHL=HpMq(HL)r. B(-2,2,2)=-5.88, B(-3,2,2)=-12.711,
B(-4,2,2)=-20.697.
**************************************************************************
C7H8N2O                 L                        CAS 3724-16-1  (1948)
3-Acetamidopyridine; C5H4N.CH2.CO.NH2
```

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-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=1.15   B2=1.70   1974WAb (55803)2803
*******************************************************************************
C7H8N2O                 L                        (2035)
3-N-Acetylaminoazine; C5H4N.NH.CO.CH3
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=1.00   B2=1.68   1981LRa (55808)2804
                                         B3=2.02
*******************************************************************************
C7H8N2O                 HL                       CAS 1195-40-0  (5749)
6-Methylpyridine-2-carboxaldehyde oxime;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  NaCl   25°C 0.10M C                      2003SSa (55814)2805
                                        B(-2,2,2)=-8.24
                                        B(-3,2,2)=-14.554
                                        B(-4,2,2)=-22.84
B(p,q,r): pH+qM+rHL=HpMq(HL)r.
*******************************************************************************
C7H8N2O                 HL                       CAS 88-68-6  (4438)
Benzamide oxime; C6H5.C(:N.OH)NH2
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  mixed  22°C  70%  U        K1=7.77   B2=15.53  1978MGd (55819)2806
Medium: 0.1 M KNO3 in 70% (v/v) dioxane in H2O
*******************************************************************************
C7H8N2O                 L    Benzhydrazide    CAS 613-94-5  (2565)
Benzoic acid hydrazide; C6H5.CO.NH.NH2
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.20M U        K1=1.67   B2=2.90   1974FSa (55832)2807
*******************************************************************************
C7H8N2O                 HL    Salicylaldazone  CAS 3291-00-7  (3760)
Salicylaldehyde-hydrazone; 2-(OH).C6H4.CH:N.NH2
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  mixed  28°C  20%  U  I     K1=2.681  B2=5.26   1987RRa (55846)2808
In 20% DMF. In 40% DMF, K1=3.055, K2=2.812; in 60% DMF, K1=3.675, K2=3.196
*******************************************************************************
C7H8N2O2                HL    Salicylic hydra  CAS 936-02-7  (2646)
2-Hydroxybenzoic acid hydrazide; HO.C6H4.CO.NH.NH2
-------------------------------------------------------------------------------
```

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	30°C	0.10M	U	M	K1=3.45	1993RDa	(55867)2809

Also data for ternary complexes with alanine, phenylalanine, bipyridyl, catechol, oxalate and 1,2-diaminoethane.

****

C7H8N2O2 L CAS 99-52-5 (470)

2-Methyl-4-nitro-aminobenzene; CH3.C6H3(NO2).NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	non-aq	25°C	100%	U			1965SSe	(55879)2810
							K(ZnBr2+L)=1.18		

Medium: acetone

****

C7H8N2O2 L CAS 89-62-3 (466)

2-Nitro-4-methylaminobenzene; CH3.C6H3(NO2).NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	non-aq	25°C	100%	U			1965SSe	(55886)2811
							K(ZnBr2+L)=0.40		

Medium: acetone

****

C7H8N2O2 L CAS 15513-52-7 (5516)

3-Nitro-2,6-dimethylpyridine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.50M	U		K1=0.3	1983BEb	(55895)2812

****

C7H8N2O2 L CAS 119-32-4 (467)

3-Nitro-4-methylaminobenzene; CH3.C6H3(NO2).NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	non-aq	25°C	100%	U	M		1965SSe	(55902)2813
							K(ZnBr2+L)=2.40		
							K(ZnCl2+L)=1.90		
							K(ZnI2+L)=2.02		

Medium: acetone

****

C7H8N2O2 L CAS 99-52-5 (1937)

3-Nitro-6-methylaminobenzene; CH3.C6H3(NO2).NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	non-aq	25°C	100%	U			1965SSe	(55908)2814
							K(ZnCl2+L)=1.88		
							K(ZnBr2+L)=2.12		

K(ZnI2+L)=1.95
Medium: acetone
****
C7H8N2O2 L CAS 611-05-2 (764)
4-Nitro-3-methylaniline; CH3.C6H3(NO2).NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	sp	non-aq	25°C	100%	U				1965SSe	(55916)2815

K(ZnBr2+L)=1.27
Medium: acetone
****
C7H8N2O2 L CAS 3569-99-1 (1950)
N-(Hydroxymethyl)isonicotinamide; C5H4N.CO.NH.CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=0.78	B2=1.18	1974WAb	(55924)2816

****
C7H8N2O3S H2L (3783)
2-Ethylthio-1H-1,3-diazin-4-one-5-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	U				1961TDb	(55931)2817

K(Zn+HL)=2.33
****
C7H8N4 L CAS 85180-62-7 (2481)
2,9-Dimethylpurine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	1.00M	U		K1=0.71		1983ALa	(55956)2818

****
C7H8N4 L (2641)
4,4'-(5,5')-Bisimidazolylmethane; C3H3N2.CH2.C3H3N2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	30°C	0.16M	U		K1=5.62	B2=10.48	1965DFa	(55962)2819

****
C7H8N4 L CAS 14675-46-8 (2484)
6,9-Dimethylpurine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	1.00M	U		K1=<0.2		1983ALa	(55969)2820

****
C7H8N4 L CAS 85180-61-6 (2482)
8,9-Dimethylpurine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	1.00M	U		K1=0.6		1983ALa	(55977)2821

C7H8N4 L (1928)
Bis(imidazol-2-yl)methane; C3H3N2.CH2.C3H3N2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C		K1=5.53	B2=10.22	1994VSa	(55987)2822
Zn++	gl	KNO3	35°C	0.20M	U	M	K(CoL2+Gly)=3.83 K(CoL2+Ala)=3.76 K(CoL2+Val)=3.66 K(CoL2+norVal)=3.68		1990RMa	(55988)2823

K(CoL2+Leu)=3.63, K(CoL2+norLeu)=3.49, K(CoL2+Phe)=3.82
K(CoL2+Trp)=4.11, K(CoL2+Ser)=3.57, K(CoL2+Thr)=3.59

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	35°C	0.20M	U	M	K1=5.13	B2=9.80	1989RVa	(55989)2824

C7H8N4S L CAS 3608-75-1 (1799)
2-Pyridinecarboxaldehyde thiosemicarbazone; C5H4N.CH:N.NH.CS.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	sp	KCl	25°C	0.10M	M		K1=9.18		1977AKb	(56019)2825

C7H8O2 HL Salicyl alcohol CAS 90-01-7 (3727)
2-Hydroxybenzyl alcohol; HO.C6H5.CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=7.63		1964JVa	(56090)2826

Medium: 75% dioxan, 0.1 M NaClO4

C7H8O3S L CAS 55832-65-0 (3763)
3-Hydroxythiophene-2-carboxylic acid ethyl ester

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	sp	diox/w	25°C	10%	U		K1=4.12		1965CSa	(56113)2827

Medium: 10% dioxan, 0.1 M NaClO4

C7H8O4 HL Methyl kojic CAS 1506-07-8 (2686)
3-Hydroxy-6-(hydroxymethyl)-2-methyl-4H-pyran-4-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo

Zn++ sp KCl 25°C 0.10M M I K1=5.68 1985PEe (56122)2828
****
C7H8O5 HL CAS 2029-29-4 (2687)
3-Hydroxy-2,6-bis(hydroxymethyl)-4H-pyran-4-one;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp KCl 25°C 0.10M M I K1=5.24 1985PEe (56141)2829
****
C7H8O8P2 H4L (6892)
1,2-((Phenylenedioxo)methylene)diphosphonic acid); C6H4O2C(PO3H2)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl R4N.X 25°C 0.50M U K1=9.06 1985GMb (56162)2830
K(Zn+HL)=4.86
Medium: 0.5 M Me4NCl
****
C7H9N L 2,4-Lutidine CAS 108-37-4 (319)
2,4-Dimethylpyridine; C5H3N.(CH3)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp non-aq 25°C 100% U M 1993SSc (56190)2831
K(ZnA+L)=2.205
Medium:Toluene. H2A:Octaethylporphyrin.

Zn++ oth KNO3 ? 0.50M U K1=3.53 1971LWb (56191)2832
****
C7H9N L 3,4-Lutidine CAS 583-58-4 (2056)
3,4-Dimethylpyridine; C5H3N.(CH3)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.50M U K1=1.43 B2=2.53 1979LRa (56250)2833
B3=3.29
****
C7H9N L 3,5-Lutidine (323)
3,5-Dimethylpyridine; C5H3N.(CH3)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaNO3 25°C 0.50M C K1=1.37 2002KSb (56272)2834

Zn++ gl KNO3 25°C 1.00M U K1=1.25 B2=2.04 1978LRb (56273)2835
B3=2.35
****
C7H9N L 3-Ethylpyridine CAS 536-78-7 (2038)
3-Ethylazine, 3-Ethylpyridine; C5H4N.C2H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl KNO3 25°C 0.50M U K1=1.00 B2=2.15 1981LRa (56293)2836

****

C7H9N L 3-Methylaniline CAS 108-44-1 (755)

3-Methylaniline (3-Toluidine); CH3.C6H4.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ sp diox/w 25°C 100% U T H 1976BSa (56302)2837

K(ZnCl2+L)=2.48

At 10-50 C. DH = -28.0 kJ mol-1; DS = -45.9 J K-1 mol-1.

****

C7H9N L 4-Ethylpyridine CAS 536-75-4 (2055)

4-Ethylazine, 4-Ethylpyridine; C5H4N.C2H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ EMF KNO3 25°C 1.00M U K1=1.32 B2=2.08 1971LWa (56317)2838

Zn++ ISE KNO3 25°C 1.00M U K1=1.30 B2=1.91 1971LWa (56318)2839

****

C7H9N L 4-Methylaniline CAS 106-49-0 (754)

4-Methylaniline (4-Toluidine); CH3.C6H4.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ sp diox/w 25°C 100% U T H 1976BSa (56335)2840

K(ZnCl2+L)=2.78

At 10-50 C. DH = -28.8 kJ mol-1; DS = -43.8 J K-1 mol-1.

****

C7H9NO L o-Anisidine CAS 90-04-0 (2474)

2-Methoxyaniline; CH3O.C6H4.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl diox/w 25°C 85% C 1983HBa (56385)2841

K1 < 1.3

****

C7H9NO2 HL CAS 30652-11-0 (2458)

3-Hydroxy-1,2-dimethylpyridin-4(1H)-one; (OH)(CH3)(O:)C5H2N.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl KNO3 25°C 0.10M C K1=7.19 B2=13.53 2004SGc (56422)2842

****

C7H9NO4S H2L (3784)

Hydroxy(6-methyl-2-pyridyl)methanesulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

```
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=4.79   B2=8.38   1964BGa (56462)2843
********************************************************************************
C7H9NS                  L                      CAS 3145-77-5  (3768)
2-(Methylthiomethyl)pyridine; C5H4N.CH2.S.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U    M   K1=1.1         1967SIb (56482)2844
                                         K(Zn(bpy)+L)=1.1
Medium: 50% dioxan, 0.1 M NaClO4
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=<1          1964KSb (56483)2845
********************************************************************************
C7H9N3O2S2              L                        (6945)
1-Ethoxycarbonyl-3-thiazole-2-ylthiourea; C3H2NS.NHCSNHCOOC2H5
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  alc/w  25°C  60%  U        K1=5.02        1994KEa (56499)2846
Medium: 60 % EtOH/H2O, 0.1 M NaNO3
********************************************************************************
C7H9N5                  L                        (6975)
Bis(imidazol-2-yl)methylamine;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C        K1=5.38   B2=9.92   1994VSa (56513)2847
                                         B(ZnHL)=9.66
                                         B(ZnHL2)=14.25
                                         B(ZnH2L2)=18.85
                                         B(Zn2H-1L2)=6.27
Also data for the amide formed with the peptide MeCO-Pro-Leu-Gly.
********************************************************************************
C7H9N5O4                HL                     CAS 215525-73-8  (7724)
N-(4-Amino-1,6-dihydro-1-methyl-5-nitroso-6-oxo-pyrimidin-2-yl)glycine;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    35°C 0.10M C        B2=7.61        2000ALa (56521)2848
                                         B(ZnHL)=5.28
                                         K(Zn=Zn(OH)2+4H)=-15.56
                                         K(Zn=Zn(OH)4+4H)=-30.20
********************************************************************************
C7H10NO6ClP2           H4L                       (6895)
N-(4-Chlorphenyl)aminomethylenedi(phosphonic acid); ClC6H4.NH.CH(PO3H2)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=10.9        1990GKa (56552)2849
```

```
                                          K(Zn+HL) = 6.9
********************************************************************************
C7H10N2                 L                       CAS 13173-22-3  (8012)
1-Allyl-2-methylimidazole ;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M C        K1=1.90   B2= 4.25  2001KGa (56560)2850
                                         B3=7.00
                                         B4=8.90
********************************************************************************
C7H10N2                 L                       CAS 42088-91-5  (3134)
2-(Methylaminomethyl)pyridine  (2-Picolylmethylamine)
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=4.96   B2=8.58   1971GEa (56602)2851
--------------------------------------------------------------------------------
Zn++       cal diox/w 25°C  50%  U   H                   1966WRb (56603)2852
Medium: 50% dioxan, 0.1 M KNO3. DH(B2)=-46.0 kJ mol-1
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C  ->0  U T H    K1=4.95        1959GFa (56604)2853
DH(K1)=-22.0 kJ mol-1, DS=21 J K-1 mol-1. K1=5.12(10 C),4.73(30 C),4.76(40C)
********************************************************************************
C7H10N2                 L                       CAS 20173-04-0  (2039)
3-(N,N-Dimethylamino)pyridine; C5H4N.N(CH3)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=1.18   B2=1.95   1981LRa (56620)2854
********************************************************************************
C7H10N2                 L                       CAS 1122-58-3  (492)
4-(N,N-Dimethylamino)pyridine; C5H4N.N(CH3)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U    M                   1993SSc (56627)2855
                                         K(ZnA+L)=4.656
                                         K(ZnB+L)=4.955
                                         K(ZnC+L)=5.85
Medium:Toluene. H2A:Octaethylporphyrin. H2B:t-Octaethylchlorin.
H2C:ttt-Octaethylisobacteriochlorin.
********************************************************************************
C7H10N2                 L                       CAS 6627-60-7  (3729)
6-Methyl-2-(aminomethyl)pyridine; CH3.C5H3N.CH2.NH2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       EMF NaNO3  20°C 0.10M U        K1=4              1971ANa (56649)2856
--------------------------------------------------------------------------------
```

Zn++ vlt diox/w 25°C 50% U H B2=7.80 1966WRb (56650)2857
Medium: 50% dioxan, 0.1 M KNO3. By calorimetry: DH(B2)=-22.2 kJ mol-1, DS=74.4 J K-1 mol-1

****

C7H10N2O L (7890)
1-Propyl-2-imidazolecarboxaldehyde;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.5M	C		K1=1.65	B2= 2.11 B3=4.19	1999BKa	(56660)2858

****

C7H10N2OS HL CAS 51-52-5 (4468)
6-Propyl-2-thiouracil (6-propyl-4-hydroxy-2-mercaptopyrimidine);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	oth/un	26°C	0.01M	U		K1=2.16	B2=5.78	1970GWa	(56674)2859

****

C7H10N2O2S HL (560)
2-(Methanesulfonamidomethyl)pyridine; C5H4N.CH2S(:O)2NHCH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	45%	U		K1=12.16	1982MYb	(56681)2860

Medium: 45% v/v dioxan/H2O, 0.01 M KNO3

****

C7H10N2O3S HL CAS 71691-06-0 (1247)
2-(N-Pyrrolideneimino)ethane sulfonic acid; C4H4N.CH:N.CH2.CH2.SO3H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	U	T	K1=8.45	1979GSa	(56690)2861

****

C7H10N2O8P2 H5L CAS 195000-06-7 (8891)
N-(3-Carboxy-2-pyridyl)aminomethane-1,1-diphosphonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C		K1=10.10 B2=14.50 B(ZnH2L)=21.71 B(ZnHL)=17.01 B(ZnH-1L)=1.04 B(ZnH4L2)=43.20 B(ZnH2L2)=31.08.	2002MKc	(56700)2862

****

C7H10O4 H2L CAS 5802-62-3 (71)
Cyclopentane-1,1-dicarboxylic acid; C5H8.(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

```
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=2.38        1972RVh (56727)2863
********************************************************************************
C7H10O4              H2L                      CAS 5164-76-1  (959)
Pent-1-ene-5-dioic acid; CH2:CH.CH2.CH2.CH(COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=2.62        1975IPa (56742)2864
********************************************************************************
C7H10O6              H3L                      CAS 57056-39-0  (5947)
2-(Carboxymethyl)glutaric acid; HOOC.CH2.CH(CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=2.01        1983WKa (56753)2865
                                         B(ZnHL)=6.50
                                         B(ZnH2L)=10.14
********************************************************************************
C7H11NO3              HL    Acetylproline      (7193)
1-Acetyl-2-pyrrolidinecarboxylic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M M    M                    1994KTa (56771)2866
                                         K(ZnA+L)=2.2
A:1,4,7,10-Tetraazacyclododecane
********************************************************************************
C7H11NO4             H2L                      CAS 16598-06-4  (965)
N-(Prop-2-enyl)iminodiethanoic acid; CH2:CH.CH2.N(CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=7.62   B2=14.01  1975IPa (56782)2867
********************************************************************************
C7H11NO4             H2L                      CAS 5626-40-4  (2803)
N-Carboxymethylpyrrolidine-2-carboxylic acid; HOOC.C4H7N-CH2COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 1.00M U        K1=8      B2=14     1974MIb (56792)2868
********************************************************************************
C7H11NO4             H2L                      CAS 499-82-1  (3163)
Piperidine-2,6-dicarboxylic acid; C5H9N(COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    30°C 0.10M U        K1=6.1    B2=11.1   1957TBb (56799)2869
********************************************************************************
C7H11NO5             H2L                        (3164)
```

1-Amino-2-propanone-N,N-diethanoic acid; CH3.CO.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=6.89 B2=10.72	1965AUa (56822)	2870
Previously published as K1=7.01, K2=3.64 (Bull.Chem.Soc.Jpn.,1963,36,1593)									
Zn++	gl	KNO3	25°C	0.10M	U		K1=7.0 B2=10.6	1963ANa (56823)	2871

****

C7H11NO6 H3L CAS 40199-58-4 (3165)

N-(2'-Carboxyethyl)iminodiethanoic acid; HOOC.CH2.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	KNO3	25°C	0.10M	U		K1=9.98	1967UKa (56865)	2872
Zn++	gl	KCl	30°C	0.10M	U		K1=10.1	1953CMa (56866)	2873
Zn++	EMF	KCl	20°C	0.10M	U		K1=10.07	1949ASa (56867)	2874
Method: H electrode									

****

C7H11NO6 H3L MNTA (1026)

Nitrilo(2-propanoic)-diethanoic acid; HOOC.CH(CH3).N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	1.00M	C		K1=9.78	1978CBb (56895)	2875
							B(ZnHL)=11.60		
Zn++	gl	KNO3	20°C	0.10M	U		K1=11.06	1974RMf (56896)	2876
Zn++	gl	KCl	20°C	0.10M	U		K1=10.89	1966IMa (56897)	2877

****

C7H11NO6P2 H4L DPHP (226)

2,6-bis(Dioxyphosphorylmethyl)pyridine; C5H3N.(CH2.PO3H2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	U		K1=9.66	1988KPa (56926)	2878
							K(Zn+HL)=5.50		
							K(Zn+H2L)=3.03		

****

C7H11NO6P2 H4L CAS 4712-06-5 (4470)

Amino(phenyl)methylenediphosphonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	U		K1=11.64	1969DMd (56934)	2879
							K(Zn+HL)=8.49		
							B(Zn2L)=16.31		

****
C7H11N3 L CAS 63763-86-0 (6062)
2,6-Di(aminomethyl)pyridine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaNO3 20°C 1M C K1=8.51 B2=15.52 1992CPb (56955)2880
****
C7H11N3O L Acetylhistamine CAS 673-49-4 (7412)
4-(2'-Acetylaminoethyl)imidazole; C3H3N2.CH2CH2.NH.COCH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.20M C K1=2.55 1989BKa (56960)2881
K(Zn+HL=ZnL+H)=-4.57
****
C7H11N3O2 L CAS 7389-87-9 (3162)
Histidine methyl ester

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C T M K1=5.04 2000RRa (56992)2882
B(ZnLA)=17.09
H2A is cysteine methyl ester. Data for 35 and 45 C.
DH(ZnLA)=-177 kJ mol-1, DS(ZnLA)=-266 J K-1 mol-1.

Zn++ gl KNO3 25°C 0.10M M K1=4.45 B2=8.66 1993GVa (56993)2883

Zn++ EMF oth/un 25°C ? U K1=5.6 1966PAa (56994)2884

Zn++ gl KCl 0°C 0.25M U T H K1=5.29 B2=10.00 1965AZa (56995)2885
K3=1.90
K1=4.82(15 C),4.40(25 C),4.36(40 C); K2=3.93(15 C),3.78(25 C),3.69(40 C);
At 15 C:DH(K1)=-38.5 kJ mol-1, TDS=-11.7 kJ mol-1, DH(K2)=-38.5,TDS2=-16.7

Zn++ gl KNO3 25°C 0.16M U M K1=4.46 B2=8.66 1965CMa (56996)2886
K3=0.0
Ternary complexes with histidine
****
C7H11N3O2 HL L-N-MeHistidine CAS 31632-58-3 (1192)
L-N-Methylhistidine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.10M C K1=6.368 B2=11.340 1976RIa (57014)2887
K(Zn(DL-N-Me-His))=6.363
B(Zn(DL-N-Me-His)2)=11.537
****
C7H12N2 L CAS 4316-42-1 (8409)
1-Butyl-1H-imidazole;

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M M        K1=2.57   B2= 4.97  1977LBc (57037)2888
                                         B3=7.20
                                         B4=9.34
                                         B5=10.81
********************************************************************************
C7H12N2                 L                       (7888)
1-Propyl-2-methylimidazole;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C  0.5M C        K1=1.35   B2= 4.40  1999BKa (57041)2889
                                         B3=7.45
                                         B4=9.41
                                         B5=10.45
********************************************************************************
C7H12N2O                L                       (7889)
1-Propyl-2-Hydroxymethylimidazole;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C  0.5M C        K1=2.07   B2= 4.92  1999BKa (57049)2890
                                         B3=6.11
                                         B4=7.47
********************************************************************************
C7H12N2O2              HL                       (6181)
2-(N-2-Pyrrolidimino)propanoic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U TIH    B2=9.64        1988GRb (57071)2891
35 C:B2=9.70, 45 C:9.79. DH(B2)=13.6 kJ mol-1, DS=229.9 J K-1 mol-1
********************************************************************************
C7H12N2O2S              L    Cyclo-Met-Gly    CAS 97605-73-7  (8135)
Cyclo-(L-methionyl-L-glycine), 3-[2-(Methylthio)ethyl]-2,5-piperazine dione;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       sp  NaClO4 20°C  1.0M C        K1=-0.6        1982BBe (57084)2892
pH 3.0
********************************************************************************
C7H12N2O3              HL    Gly-Pro          CAS 704-15-4  (257)
Glycyl-proline; H2N.CH2.CO.NC4H7.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.20M U        K1=4.03   B2=7.63   1982KRc (57112)2893
********************************************************************************
```

C7H12N2O3 HL Pro-Gly CAS 2578-97-6 (262)
Prolyl-glycine; C4H8N.CO.NH.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	20°C	0.20M	U		K1=3.58	B2=7.00	1982KRc (57144)	2894

****

C7H12N2O5 H2L Gly-Glu CAS 7412-78-4 (280)
Glycyl-glutamic acid; H2N.CH2.CO.NH.CH(CH2.CH2.COOH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=3.98		2002FBa (57166)	2895
							B(ZnHL)=9.96			
							K(ZnL+H)=5.98			
							K(Zn+HL)=1.587			
Zn++	gl	KNO3	20°C	0.10M	U		K1=7.30	B2=9.54	1980BBc (57167)	2896

****

C7H12N2O6P2 H4L CAS 70010-76-3 (8892)
N-(3-Methyl-2-pyridyl)aminomethane-1,1-diphosphonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C		K1=10.32	B2=14.30	2002MKc (57186)	2897
							B(ZnH2L)=21.80			
							B(ZnHL)=17.35			
							B(ZnH-1L)=1.32			
							B(ZnH4L2)=43.34			
							B(ZnH2L2)=32.31.			

****

C7H12N3O5P H2L PMEC CAS 117087-39-5 (8366)
1-[2-(Phosphonomethoxy)ethyl]cytosine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	M		K1=2.67		1999BHb (57195)	2898
							K(Zn+HL)=0.95			
							K(ZnL+H)=5.23			

****

C7H12N4O L (6725)
Glycyl-histamine

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	C		K1=3.58	B2=6.80	1994GHb (57211)	2899
							B(ZnHL)=9.91			

****

C7H12O4 HL CAS 96740-23-7 (2249)
1,5-Dimethoxy-pent-2,4-dione, CH3.O.CH2.CO.CH2.CO.CH2.O.CH3

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 24°C  50%  U        K1=6.0         1979ACa (57284)2900
********************************************************************************
C7H12O4               H2L    Pimelic acid     CAS 111-16-0  (985)
1,7-Heptanedioic acid; HOOC.(CH2)5.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=1.3         1975LPa (57302)2901
********************************************************************************
C7H12O4               H2L                      CAS 534-59-8  (480)
Butylpropanedioic acid (Butylmalonic acid); HOOC.CH(C4H9).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C   H    K1=2.97   B2=5.00   1989ABa (57326)2902
                                         K(Zn+HL)=2.01
                                         B(Zn(bpy)L)=7.77
DH(K1)=15.5 kJ mol-1, DS(K1)=108.8 J K-1 mol-1
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C   H    K1=2.80   B2=4.96   1989ABa (57327)2903
                                         K(Zn+HL)=1.65
                                         B(Zn(bpy)L)=7.83
DH(K1)=15.0 kJ mol-1, DS(K1)=103.8 J K-1 mol-1
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=2.73        1975IPa (57328)2904
********************************************************************************
C7H12O4               H2L                      CAS 510-20-3  (482)
Diethylpropanedioic acid (Diethylmalonic acid); HOOC.C(C2H5)2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=2.44        1970OVa (57351)2905
--------------------------------------------------------------------------------
Zn++       con oth/un 25°C .001M U        K1=3.24        1931IRb (57352)2906
********************************************************************************
C7H13NO2               HL                       (3170)
1-Aminocyclohexanecarboxylic acid; H2N.C6H10.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U        K1=4.78   B2=9.18   1963IPa (57428)2907
********************************************************************************
C7H13NO2               HL                       CAS 103067-99-4  (1127)
2-Amino-hept-6-enoic acid; CH2:CH.CH2.CH2.CH2.CH(NH2).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
```

```
Zn++       gl  KNO3   25°C 0.10M U        K1=4.45   B2=8.632  1975IPb (57434)2908
**************************************************************************
C7H13NO2               HL                      CAS 99571-58-1  (6223)
6-Methylpiperidine-2-carboxylic acid; CH3.C5H9N.COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  oth/un 30°C 0.10M U   H    K1=5.79   B2=11.33  1985RRe (57449)2909
DH(K1)=-61 kJ mol-1, DS= 90 J K-1 mol-1
**************************************************************************
C7H13NO2S              HL                       (6377)
2-Propylthiazolidine-4-carboxylic acid;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   30°C 0.10M U TIH    K1=2.90   B2= 5.06  1983RKb (57463)2910
At I=0.0, K1=3.06, K2=2.28. Data for 25-50 C. DH(K1)=-13.4 kJ mol-1,
DS(K1)=11.8 J K-1 mol-1; DH(K2)=-12.9, DS(K2)=0.13.
**************************************************************************
C7H13NO3               HL                       (7175)
3,3'-Dimethylglutaramide; HOOCCH2C(CH3)2CH2CONH2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        B2=5.52        1995MWb (57469)2911
**************************************************************************
C7H13NO3S             H2L                      CAS 59-53-0  (1269)
N-Acetyl-penicillamine; CH3.CO.NH.CH(COOH)C(CH3)2SH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M M    M                   1989SHd (57483)2912
                                        K(Zn(nta)+L)=4.30
--------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C        K1=6.85   B2=14.03  1988SKc (57484)2913
**************************************************************************
C7H13NO4               H2L                      CAS 16578-07-5  (341)
N-Propyliminodiethanoic acid; CH3.CH2.CH2.N(CH2.COOH)2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=8.00   B2=14.55  1975IPa (57521)2914
**************************************************************************
C7H13NO4S              HL                       (6310)
Acetylacetone-2-aminoethane sulfonic acid schiff base;
CH3.CO.CH2.C(CH3):N.CH2.CH2.HSO3
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U T H    K1=7.80        1976OMa (57533)2915
```

****

C7H13NO4S H2L (3184)
N-(2-Methylthioethyl)iminodiethanoic acid; CH3.S.CH2.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	20°C	0.10M	U		K1=8.28 B2=12.78 K(Zn(OH)L+H)=9.68	1955SAa	(57540)2916

****

C7H13NO5 H2L CAS 62117-07-1 (3171)
N-(2-Methoxyethyl)iminodiethanoic acid; CH3.O.CH2.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	20°C	0.10M	U		K1=8.43 B2=12.85 K(ZnLOH+H)=9.65 K(ZnL2OH+H)=10.75	1955SAa	(57567)2917

****

C7H13NO5 H2L CAS 59881-62-1 (339)
N-(3-Hydroxypropyl)iminodiethanoic acid; HO.(CH2)3.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	30°C	0.10M	U		K1=7.7 B2=13.0	1954CMa	(57584)2918

****

C7H13NO5 H2L CAS 41433-03-8 (4451)
N-(Carboxymethyl)-N-(2'-hydroxyethyl)alanine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	EMF	KNO3	20°C	0.10M	U		K1=8.36 B2=12.15	1968MRb	(57592)2919

****

C7H13NO6 H2L CAS 32013-58-4 (6079)
N-(2,3-Dihydroxypropyl)iminodiethanoic acid; HO.CH2.CH(OH).CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	20°C	0.10M	U		K1=8.11 B2=11.53	1980MRc	(57602)2920

****

C7H13NS2 HL (4455)
Hexamethylenedithiocarbamic acid; (CH2)6N.CSSH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	dis	oth/un	25°C	0.01M	U		B2=12.9	1973SSa	(57629)2921
Zn++	vlt	KCl	25°C	1.0M	U		B2=13.1	1973SSa	(57630)2922

****

C7H13N3 L CAS 673-46-1 (4424)
4-(2-Dimethylaminoethyl)imidazole;

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U        K1=3.40        1973BDb (57637)2923
********************************************************************************
C7H13N3O4              HL    Ala-Asn          CAS 1999-41-3  (5934)
Alanyl-asparagine; NH2.CH(CH3.CO.NH.CH(CH2.CO.NH2).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaCl   20°C 0.15M U        K1=3.18        1989DKa (57646)2924
D/L-Ala-D/L-Asn stereoisomer
********************************************************************************
C7H14N2O2              HL                    CAS 111652-03-0  (8138)
Azetidine-1-(2-aminobutanoic acid);
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=7.3         1989ARa (57699)2925
********************************************************************************
C7H14N2O3              HL    Gly-Val          CAS 7963-21-9  (973)
Glycyl-valine; H2N.CH2.CO.NH.CH(CH(CH3)2).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U    M   K1=4.10        2001PSb (57748)2926
                                          B(ZnH-1L)=-3.00
                                          B(ZnAL)=5.50
                                          B(ZnAH-1L)=-2.10
                                          B(Zn2AL2)=18.76
A is imidazole. B(Zn2H-1AL2)=11.66, B(ZnNiAL2)=20.15, B(ZnNiH-1AL2)=13.55.
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 30°C 0.20M U    M   K1=4.20        1999PGa (57749)2927
                                          B(ZnAL)=5.40
                                          B(ZnBL)=5.62
                                          B(ZnCL)=5.62
A=imidazole, B=2-methylimidazole, C=2-ethylimidazole.
********************************************************************************
C7H14N2O4S2            H2L                   CAS 28052-93-7  (526)
S,S'-Methylenebis(L-cysteine); H2N(HOOC)CH.CH2.S.CH2.S.CH2.CH(COOH)NH2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U        K1=7.28   B2=11.13  1981BLa (57825)2928
********************************************************************************
C7H14N4O4P             H2L                   CAS 550359-20-1  (9059)
[[2-(4-Amino-2-imino-1(2H)-pyrimidinyl)ethoxy]methyl]phosphonic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
```

```
Zn++       gl  NaNO3  25°C 0.10M M        K1=2.11        2003FHa (57837)2929
**************************************************************************
C7H14O2                HL                      CAS 4536-23-6  (5863)
5-Methyhexanoic acid; (CH3)2CH.(CH2)3.COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C  I M   K1=0.99        1988LTc (57853)2930
                                         K(Zn(phen)+L)=0.98
Data also for 50% v/v EtOH/H2O, and 50% v/v Dioxan/H2O mixtures
**************************************************************************
C7H15NO4               HL                      CAS 41244-51-3  (4459)
N,N-Bis(2'-hydroxyethyl)alanine; (HO.CH2.CH2)2.N.CH(CH3)COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       EMF KNO3   20°C 0.10M U        K1=5.16   B2=8.76   1968MRb (57928)2931
**************************************************************************
C7H15NO4S              HL    MOPS              CAS 1132-61-2  (2792)
3-(N-Morpholino)propanesulfonic acid; C4H8ON-CH2.CH2.CH2.SO3H
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=3.47        2001AOa (57958)2932
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M   K1=3.63        1999AAa (57959)2933
                                         K(Zn(Ser)+2L)=6.42
                                         K(Zn(Asp)+2L)=7.30
                                         K(Zn(His)+2L)=6.82
**************************************************************************
C7H15NO5                L                      CAS 3329-30-4  (564)
2-Methylamino-2-deoxyglucose;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaNO3  30°C 0.10M U        K1=3.2         1979MNa (57971)2934
**************************************************************************
C7H15NO5S              HL    MOPSO             CAS 68399-77-9  (1967)
3-(N-Morpholino)-2-hydroxypropane sulfonic acid;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M                  1999AAa (57990)2935
                                         K(Zn(Gly)+2L)=7.28
                                         K(Zn(Ser)+2L)=7.63
                                         K(Zn(Met)+2L)=6.97
                                         K(Zn(Asp)+2L)=7.65
K(Zn(Glu)+2L)=7.03, K(Zn(His)+2L)=8.50.
**************************************************************************
C7H15NO7               HL                       (6519)
```

2-Amino-2-deoxy-D-glycero-D-gulo-heptonic acid;HOOC.CH(NH2).(CHOH)4.CH2OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	U		K1=4.62 B2=12.72 B(ZnH2L2)=22.46 B(ZnH-1L)=-4.52	1992DGa (58001)	2936

****

C7H15NO7 HL (7135)
2-Amino-2-deoxy-D-glycero-L-glucoheptonic acid; HOOCCH(NH2)(CHOH)4CH2OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=4.62 B2=8.33 B(ZnH-1L)=-4.46	1995DFc (58007)	2937

****

C7H16N2 L CAS 86849-08-3 (3136)
trans-Cycloheptane-1,2-diamine; C7H12(NH2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	oth/un	10°C	->0	U		K1=6.11 B2=11.64	1958BFa (58043)	2938

****

C7H16N2O L (6586)
1-Oxa-4,8-diazacyclodecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=5.1 B2=10.1	1990CCa (58053)	2939
Zn++	gl	NaNO3	25°C	0.10M	U		K1=4.94	1990HWa (58054)	2940

****

C7H16N2S L (6463)
1-Thia-4,8-diazacyclodecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=6.85	1992WLb (58064)	2941

****

C7H16S L CAS 26158-99-6 (5696)
Pentyl-ethylsulfide; C2H5.S.C5H11

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	ISE	non-aq	25°C	100%	U		K1=-0.18	1986MMb (58093)	2942

Medium: acetone, Bu4NClO4

****

C7H17N L n-Heptylamine CAS 111-68-2 (3138)
n-Heptylamine; CH3(CH2)6.NH2

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       sp  non-aq 15°C 100%  U    M                  1993MEa (58098)2943
                                        K(ZnA+L)=3.63
                                        K(ZnB+L)=3.18
In chloroform. A=5,15-Bis(2-hydroxy-1-naphthyl)-2,3,7,8,12,13,17,18-octa-
ethylporphine, B=5,15-Bis(2-methoxy-1-naphthyl) deriv. of A
*************************************************************************
C7H17NO2               L                          (6450)
N,N-Di(2-hydroxypropyl)methylamine; CH3.N(CH2.CH(OH).CH3)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  oth/un 25°C    ?  C        K1=2.87        1991DMa (58104)2944
*************************************************************************
C7H17NO5S              HL    AMPSO            CAS 68399-79-1  (1968)
3-[1,1-Dimethyl-2-hydroxyethylamino]-2-hydroxypropanesulfonic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=4.42        2001AOa (58116)2945
*************************************************************************
C7H17NO6S              HL    DIPSO              (1097)
3-[N,N-Bis(2-hydroxyethyl)amino]-2-hydroxypropane sulfonic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=3.83        2000ADa (58130)2946
.
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=3.55        1999AAa (58131)2947
*************************************************************************
C7H17NO7P2             HL                    CAS 220491-02-1  (7714)
N-2-Methyltetrahydrofuryliminodi(methylenephosphonic acid);
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C        K1=10.85  B2=15.25  1999MKa (58148)2948
                                        B(ZnHL)=16.17
                                        B(ZnH2L)=20.51
                                        B(ZnH-1L)=0.08
                                        B(ZnH2L2)=31.10
*K(ZnL)=-10.77; K(ZnOH+L)=9.47; K(ZnOH+ZnL=Zn(OH)L+Zn)=-1.38.
B(ZnHL2)=25.34; B(ZnH-1L2)=3.84.
*************************************************************************
C7H17NO7S              HL    TAPSO            CAS 68399-81-5  (167)
3-[N-(Tris(hydroxymethyl)methyl)amino]-2-hydroxypropane sulfonic acid
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
```

```
Zn++       gl  KNO3   25°C 0.10M C    M   K1=3.80        2001AAa (58167)2949
Also data for ternary complexes with 5'-GMP, 5'-IMP and 5'-CMP.
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=3.61        2000ADa (58168)2950
.
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=3.78        1999AAa (58169)2951
*************************************************************************
C7H17N2O3P             HL                        (7919)
(Glycylamino)methyl(t-butylphosphinic acid);
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=3.55   B2= 6.34  2001LKa (58187)2952
                                         B(ZnHL)=9.89
                                         B(ZnH-2L)=-13.39
*************************************************************************
C7H17N2O4P            H2L    Leu-Gly(P)       CAS 60668-11-3  (7119)
Leucylaminomethylphosphonic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=3.627       1995HLa (58194)2953
                                         B(ZnH-1L)=-4.12
*************************************************************************
C7H17N2O4PS           H2L                      CAS 82611-22-1  (7392)
Methionyl-1-aminoethylphosphonic acid;                          H2L
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=4.16        1997LBa (58199)2954
Data are for (S,S)-isomer. For (S,R)-isomer K1=3.85, B2=6.50
*************************************************************************
C7H17N3                 L                        (101)
1,4,7-Triazacyclodecane; cyclo(.NHCH2CH2NHCH2CH2NHCH2CH2CH2.)
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.20M M   H    K1=10.3        1978KKb (58219)2955
DH1=-30.6 kJ mol-1
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M M        K1=11.28       1978ZOa (58220)2956
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=11.2        1975DDa (58221)2957
*************************************************************************
C7H19NO6P2            H4L                      (7464)
N-(3-Methylbutyl)imino-bis(methylenephosphonic acid);
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
```

Zn++ gl KCl 25°C 0.20M C K1=9.37 1999MKa (58268)2958
B(ZnHL)=16.04
B(ZnH2L)=20.86
B(ZnH-1L)=-0.20
B(ZnH-2L)=-11.61
*K(ZnL)=-9.57; K(ZnOH+L)=9.19; K(ZnOH+ZnL=Zn(OH)L+Zn)=-0.18.

****

C7H19N3 L Spermidine CAS 124-20-9 (13)
1,5,10-Triazadecane, 4-Azaoctane-1,8-diamine; H2N.(CH2)3.NH.(CH2)4.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	20°C	0.10M	U		B(ZnHL)=14.89 B(ZnHL2)=22.29	1991WBa	(58305)2959

****

C7H20N2O4P2 H2L (7263)
1,3-Diaminopropane-N,N'-bis(methylenemethylphosphinic acid);
CH2(CH2NHCH2PO(OH)CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	R4N.X	25°C	0.10M	M		K1=7.35	1996BCa	(58327)2960

Medium: 0.1 M Me4NNO3.

****

C7H20N4 L CAS 4741-99-5 (12)
1,4,8,11-Tetraazaundecane; H2N.CH2.CH2.NH.CH2.CH2.CH2.NH.CH2.CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	oth/un	21°C	var	U	M		1987DHa	(58349)2961

Ternary complexes with glycine, alanine, en, pn, acetate.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	oth/un	25°C	?	U		K1=12.38	1976NGa	(58350)2962

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	?	U		K1=12.38	1976NGe	(58351)2963

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.50M	U		K1=12.8	1970WBa	(58352)2964

****

C7H20N4 L (3012)
N,N-Bis(2-aminoethyl)-1,3-diaminopropane; N(CH2CH2NH)2CH2CH2CH2NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	C		K1=13.35 B(ZnH-1L)=1.61	2003KDa	(58365)2965

****

C8H5NO2 HL Isatin CAS 91-56-5 (7844)
2,3-Indolinedione;

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  alc/w  30°C   5%  U    M                    1995RRb (58405)2966
                                       K(ZnA+L)=7.31
                                       B(ZnAL)=15.17
Medium: 5% v/v EtOH/H2O, 0.10 M KNO3.  H2A is thioglycolic acid.
-------------------------------------------------------------------------
Zn++       gl  alc/w  30°C   5%  M    M   K1=5.85   B2=10.61  1994RRa (58406)2967
Medium: 5% v/v EtOH/H2O, 0.10 M KNO3.  K(ZnA+L)=5.58 (A=Gly), 5.56 (Ala),
5.53 (Val), 5.59 (en), 5.64 (bpy), 5.37 (oxalate), 5.44 (catecholate).
*************************************************************************
C8H5NO3                 L                      CAS 524-38-9  (8323)
N-Hydroxyphthalimide;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  alc/w  30°C   5%  U    M                    1995RRb (58421)2968
                                       K(ZnA+L)=3.95
                                       B(ZnAL)=11.81
Medium: 5% v/v EtOH/H2O, 0.10 M KNO3.  H2A is thioglycolic acid.
*************************************************************************
C8H5NO6              H2L                       CAS 603-11-2  (1171)
3-Nitro-phthalic acid; O2N.C6H3(COOH)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  oth/un 35°C  dil  U        K1=3.33        1970NPb (58431)2969
*************************************************************************
C8H5N5O6             H3L    Murexide           (453)
Purpuric acid (Murexide is ammonium salt);
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       sp  none   25°C  dil  C        K1=5.02        2004AZa (58463)2970
H-point standard addition method. Competition with sulfate.
-------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U TIH    K1=5.00   B2=8.87   1995GSa (58464)2971
Medium: 10% w/w MeCN/DMSO. DH(K1)=-24.7 kJ mol-1, DS=-14 J K-1 mol-1
DH(K2)=-80.2, DS=-195
-------------------------------------------------------------------------
Zn++       sp  none     ?   0.0  U                      1957TVb (58465)2972
                                       K(Zn+H2L)=9.32
-------------------------------------------------------------------------
Zn++       sp  oth/un   ?  0.10M U                      1949SGa (58466)2973
                                       K(Zn+H2L)=3.1
*************************************************************************
C8H5O2F3S              HL    TTA              CAS 326-91-0  (165)
4,4,4-Trifluoro-1-(2-thienyl)butane-1,3-dione; F3C.CO.CH2.CO.C4H3S
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
```

```
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  75%  U        K1=7.78   B2=15.03  1995UFa (58584)2974
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.50M C        K1=3.45        1993HTa (58585)2975
--------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  75%  U        K1=6.15        1977AHb (58586)2976
--------------------------------------------------------------------------------
Zn++       cal non-aq 25°C 100%  U    M                  1972KKd (58587)2977
                                        K(ZnL2+bpy)=1.95
                                        K(ZnL2+A)=1.71
                                        K(ZnL2+phen)=2.50
Medium: CHCl3. A=4,4'-dipyridyl.
--------------------------------------------------------------------------------
Zn++       dis non-aq 25°C 100%  U    M                  1972KKd (58588)2978
                                        K(ZnL2+bpy)=4.65
Medium: benzene
--------------------------------------------------------------------------------
Zn++       dis oth/un 25°C    ?  U    M                  1967CWa (58589)2979
                                        K(ZnL2+A)=8.07
                                        K(Zn+2HL+A=ZnL2A+2H)=-0.27
A=tri-n-octylphosphine oxide
--------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  75%  U        K1=7.75   B2=14.05  1965RGa (58590)2980
********************************************************************************
C8H5O3F3S             H2L                      CAS 65712-32-3  (5446)
3-(2-Trifluoromethylfuryl)-2-mercaptopropenoic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C 0.10M U        K1=10.33  B2=18.89  1977WVa (58718)2981
********************************************************************************
C8H6N2O                HL                       CAS 17056-99-4  (3220)
5-Hydroxyquinoxaline;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 20°C  50%  U        K1=7.07   B2=12.78  1954IRa (58744)2982
Medium: 50% dioxan, I=0.3 M NaClO4
********************************************************************************
C8H6N2O                HL                         (6290)
8-Hydroxycinnoline, (2-Hydroxybenzo)pyrimidine;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 20°C  50%  U        K1=6.93   B2=12.73  1954IRa (58765)2983
Medium: 50% dioxan, 0.3 M NaClO4
********************************************************************************
C8H6N2O                HL    8-Quinazolinol   CAS 7757-02-2  (3221)
8-Hydroxyquinazoline;
--------------------------------------------------------------------------------
```

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  diox/w 20°C  50%  U        K1=7.48   B2=14.44  1954IRa (58775)2984
Medium: 50% dioxan, 0.3 M NaClO4
*************************************************************************
C8H6N2O2              HL                        (6681)
9-Hydroxy-pyrido(1,2-a)pyrimidin-4-one;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=6.30   B2=11.89  1993YDa (58786)2985
Data also in 50% v/v dioxan/water. Electrolyte: 0.1M KNO3.
B1= 7.50, B2= 13.70.
*************************************************************************
C8H6N2S                L                      CAS 53911-41-4  (3815)
4-(2'-Pyridyl)-1,3-thiazole;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.10M U        K1=4.17   B2=7.77   1968EHa (58800)2986
                                         B3=10.63
*************************************************************************
C8H6N2S                L                      CAS 53911-40-3  (3816)
5-(2'-Pyridyl)-1,3-thiazole;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       sp  NaClO4 25°C 0.10M U        K1=0.3         1965KSc (58807)2987
*************************************************************************
C8H6O4               H2L    Phthalic acid    CAS 88-99-3  (113)
Benzene-1,2-dicarboxylic acid; C6H4(COOH)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.10M U        K1=2.18        1989SCa (58915)2988
In 60% v/v EtOH/H2O: K1 = 2.94
-------------------------------------------------------------------------
Zn++       gl  oth/un 35°C .493M U        K1=3.02        1975PAb (58916)2989
-------------------------------------------------------------------------
Zn++       EMF oth/un 25°C  0.0  U T H    K1=2.893       1965NAa (58917)2990
Method: H electrode. 0-45 C. DH(K1)=13.4 kJ mol-1, DS=99.5 J K-1 mol-1
K1=7.635-0.03956T+0.00007937T^2
-------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.10M U        K1=2.2         1960YYa (58918)2991
*************************************************************************
C8H7NO2Cl2             HL                      CAS 13538-26-6  (6286)
3,5-Dichloro-2-hydroxyacetophenone oxime; Cl2(HO)C6H2.C(CH3):NOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
```

Zn++ gl alc/w 27°C 75% U I K1=7.77 B2=14.15 1976LGa (59114)2992
Data in 75% EtOH. Data also in 75% acetone and 75% dioxan
****
C8H7NO2S H2L (5450)
3-(2-Pyridyl)-2-mercaptopropenoic acid; C5H4N.CH:C(SH).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 0.10M U K1=12.82 B2=19.61 1977WVa (59123)2993
****
C8H7NO4 HL CAS 3740-52-1 (5592)
2-(4-Nitrophenyl)ethanoic acid; NO2.C6H4.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 50% C M K1=2.01 1985BSd (59134)2994
K(Zn(phen)+L)=2.08
Medium: 50% v/v dioxan/H2O, 0.1 M NaClO4
****
C8H7NO4 HL CAS 1450-76-7 (1143)
2-Hydroxy-5-nitroacetophenone; HO.C6H3(NO2).CO.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp diox/w 40°C 50% U K1=2.85 1975PSa (59140)2995
****
C8H7NO4S HL CAS 3406-75-5 (4564)
(4-Nitrophenylthio)ethanoic acid; O2N.C6H4.S.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 50% U M K1=1.78 1972SGa (59154)2996
K(Zn(bpy)+L) = 1.91
Medium: 50% dioxan, 0.1 M NaClO4
****
C8H7N3 L CAS 18653-75-3 (3792)
2-(2'-Pyridyl)imidazole;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C K1=4.77 B2=9.08 1992RKa (59177)2997
B3=12.36
B4=13.73

Zn++ EMF KNO3 25°C 0.10M U K1=4.39 B2=8.96 1967EHc (59178)2998
B3=12.07
****
C8H7N3 L CAS 16576-78-6 (3793)
4-(2'-Pyridyl)imidazole;

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=5.419  B2=10.232 1967EHb (59188)2999
                                          B3=13.836
*************************************************************************
C8H7O2Cl               HL                     CAS 1450-74-4  (6325)
2-Hydroxy-5-chloro-acetophenone; Cl(HO)C6H3.CO.CH3
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  diox/w 40°C  50%  U        K1=6.30        1975PPa (59211)3000
*************************************************************************
C8H8NO2Cl              HL                     CAS 10242-05-4  (629)
N-(3-Chlorophenyl)aminoethanoic acid; Cl.C6H4.NHCH2COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U    M                   1983CLc (59266)3001
                                       K(Zn(bpy)+L)=3.13
*************************************************************************
C8H8NO2Cl              HL                     CAS 5465-90-7  (632)
N-(4-Chlorophenyl)aminoethanoic acid; Cl.C6H4.NHCH2COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U    M                   1984CMa (59273)3002
                                       K(Zn(phen)+L)=3.21
-------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=2.94        1979CXa (59274)3003
*************************************************************************
C8H8NO2Cl              HL                     CAS 61756-69-2  (4569)
N-Acetyl-N-(4-chlorophenyl)hydroxamine; Cl.C6H4.N(CO.CH3).OH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  70%  U        K1=5.16   B2=9.53   1968JSb (59279)3004
Medium: 70% dioxan, 0.1 M KCl
*************************************************************************
C8H8N2                  L                     CAS 615-15-6  (8241)
2-Methylbenzimidazole;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=1.30        1990LGb (59299)3005
*************************************************************************
C8H8N2O2              H2L                      (3821)
1-(2'-Hydroxyphenyl)-4-oxo-2,3-diazabut-1-ene;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
```

```
Zn++       sp  alc/w  19°C  40%  U                        1966SSe (59322)3006
                                      K(Zn+HL)=6.28
                                      K(Zn+H2L)=4.41
Medium: 40% EtOH, 0.05 M NaClO4
-------------------------------------------------------------------------------
Zn++       sp  alc/w  19°C  28%  U                        1963HOc (59323)3007
                                      K(?)=5.8
Medium: 28% EtOH, 0.025 M, acetate buffer
*******************************************************************************
C8H8N2O3              H3L                          (3822)
1-(2',4'-Dihydroxyphenyl)-4-oxo-2,3-diazabut-1-ene;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       sp  alc/w  19°C  28%  U                        1963HOc (59347)3008
                                      K(?)=4.08
                                      K(?)=9.79
Medium:28% EtOH, 0.025 M, acetate buffer
*******************************************************************************
C8H8N2O4S             H2L                          (5451)
3-(Tetrahydro-6-methyl-2,4-dioxo-5-pyrimidyl)-2-mercaptopropenoic acid;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C 0.10M U        K1=10.36  B2=19.29  1977WVa (59364)3009
*******************************************************************************
C8H8N2O6S             H2L                      CAS 15054-42-9  (3843)
N-(2'-Nitrobenzenesulfonyl)aminoethanoic acid; O2N.C6H4.SO2.NH.CH2.COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C    M                   2000SIa (59370)3010
                                      B(ZnHL)=12.69
                                      B(ZnH2L2)=25.99
                                      B(ZnHL(bpy))=18.23
                                      B(ZnH2L2(bpy))=31.3
B(ZnL(bpy))=12.05.
-------------------------------------------------------------------------------
Zn++       gl  alc/w  30°C  50%  U                        1967GMb (59371)3011
                                      K(Zn+H2L=ZnHL+H)=1.94
                                      K(ZnHL+H2L=Zn(HL)2+H)=1.46
                                      K(ZnHL2+H)=5.97
                                      K(ZnL2+H)=7.60
Medium: 50% EtOH
*******************************************************************************
C8H8N2O6S             H2L                      CAS 1215-64-1  (3844)
N-(3'-Nitrobenzenesulfonyl)aminoethanoic acid; O2N.C6H4.SO2.NH.CH2.COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
```

Zn++ gl alc/w 30°C 50% U 1967GMb (59379)3012
K(Zn+H2L=ZnHL+H)=2.18
K(ZnHL+H2L=Zn(HL)2+H)=1.46
K(ZnHL2+H)=5.83
K(ZnL2+H)=7.21
Medium: 50% EtOH

****

C8H8N2O6S H2L CAS 1215-63-0 (3845)
N-(4'-Nitrobenzenesulfonyl)aminoethanoic acid; O2N.C6H4.SO2.NH.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	alc/w	30°C	50%	U			1967GMb	(59383)3013
							K(Zn+H2L=ZnHL+H)=2.23		
							K(ZnHL+H2L=Zn(HL)2+H)=1.79		
							K(ZnHL2+H)=5.82		
							K(ZnL2+H)=7.06		

Medium: 50% EtOH

****

C8H8N2S HL CAS 7152-24-1 (6200)
2-(Methylmercapto)benzimidazole;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	30°C	0.10M	M	M		1995RMa	(59389)3014
							KZn(bpy)+L)=8.20		
							K(Zn(phen)+L)=8.10		
							K(ZnA+L)=7.74		

A is 1,2-diaminobenzene.

Zn++	gl	NaClO4	30°C	0.10M	M		K1=9.14	1995RMa	(59390)3015

****

C8H8N4 L Hydralazine CAS 86-54-4 (3197)
1-Hydrazinophthalazine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	37°C	0.15M	U		K1=3.79 B2= 8.12	1984AMb	(59399)3016
							B(ZnH-1L)=3.011		
Zn++	gl	oth/un	22°C	0.10M	U		K1=4.9 B2=9.0	1957FEa	(59400)3017

****

C8H8N4OS L (6097)
2-Acetylpyridinethiosemicarbazone; C5H4N.CO.CH:N.NH.CS.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	37°C	0.15M	C		K1=4.25 B2= 7.65	1976APb	(59405)3018
							B(ZnH-1L)=-0.43		
							B(ZnH-2L)=-6.34		

B(ZnH-1L2)=3.32
The temperature and ionic strength are inferred, but not stated.
****
C8H8OS2 HL CAS 128367-51-7 (4503)
1-Mercapto-1-methyl-3-(2-thienyl)prop-1-en-3-one;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 75% U K1=9.19 B2=18.22 1969UTa (59423)3019
Medium: 75% dioxan, 0.01 M Me4NI

Zn++ gl diox/w 30°C 75% U K1=9.46 B2=18.70 1969UTa (59424)3020
****
C8H8O2 HL 2-Acetylphenol CAS 118-93-4 (1888)
2-Hydroxyacetophenone; HO.C6H4.CO.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 40°C 50% U K1=6.30 1975PPa (59452)3021
****
C8H8O2 HL p-Toluic acid CAS 99-94-5 (1372)
4-Methylbenzoic acid; CH3.C6H4.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 50% U M K1=2.43 1968GPd (59497)3022
K(Zn(bpy)+L)=2.48
Medium: 50% dioxan, 0.1 M NaClO4
****
C8H8O2 HL Phenylacetic CAS 103-82-2 (1361)
Phenylethanoic acid; C6H5.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 25°C 50% C I M K1=1.75 1985BSd (59535)3023
K(Zn(phen)+L)=1.96
Medium: 50% v/v EtOH/H2O. In 50% dioxan: K1=2.26, K(Zn(phen)+L)=2.29

Zn++ gl KNO3 25°C 0.10M C I M K1=1.14 1985SMf (59536)3024
K(Zn(phen)+L)=1.05
Also data in 30, 50, 60, 70, and 90% (v/v) Ethanol/water and 10, 30, 50, 60, 70, 80, and 90% (v/v) dioxane/water.
****
C8H8O2 HL CAS 1004-72-4 (3190)
alpha-Methyltropolone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 50% U K1=8.6 B2=15.7 1954BFb (59577)3025
****

C8H8O2 HL CAS 583-80-2 (3191)
beta-Methyltropolone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	50%	U		K1=8.4 B2=15.2 B3=18.8	1954BFb (59588)	3026

C8H8O2S HL CAS 103-04-8 (3223)
(Phenylthio)ethanoic acid; C6H5.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	diox/w	25°C	50%	C	M	K1=2.24	1979FFb (59618)	3027
Medium: 50% dioxan, 0.1 M NaClO4. Data also for other related sulfides									
Zn++	gl	diox/w	25°C	50%	U	M	K1=2.04 K(Zn(bpy)+L)=2.20	1972SGa (59619)	3028
Medium: 50% dioxan, 0.1 M NaClO4									
Zn++	gl	oth/un	25°C	0.10M	U		K1=0.8	1962SYa (59620)	3029

C8H8O2S HL 3-Thenoylaceton CAS 21808-13-9 (2736)
3-Thenoylacetone, 1-(3'-Thienyl)butane-1,3-dione; C4H3S.CO.CH2.CO.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=10.0 B2=18.00	1965RGa (59644)	3030

C8H8O2S HL CAS 13205-48-6 (4506)
4-(Methylthio)benzoic acid; CH3.S.C6H4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	ISE	KNO3	25°C	0.10M	C		K1=0.32	1972FGb (59650)	3031
By competition with Ag+ using Ag ISE									

C8H8O2Se HL CAS 17893-46-8 (4507)
(Phenylseleno)ethanoic acid; C6H5.Se.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	ISE	KNO3	25°C	0.10M	C		K1=0.60	1972FGb (59657)	3032
By competition with Ag+ using Ag ISE									

C8H8O3 H2L o-Cresotic acid CAS 83-40-9 (2338)
2-Hydroxy-3-methylbenzoic acid; CH3.C6H3(OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

```
Zn++       gl  alc/w  25°C  50%  M    M   K1=7.04        1983ADb (59695)3033
                                          K(Zn(phen)+L)=6.90
Medium: 50% v/v EtOH/H2O, 0.10 M NaNO3.
**************************************************************************
C8H8O3                 HL    Mandelic Acid    CAS 611-72-3  (80)
2-Phenyl-2-hydroxyethanoic acid; C6H5.CH(OH).COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C  2.0M U        K1=1.36   B2= 2.58  1985MFa (59796)3034
By quinhydrone electrode, K1=1.40, B2=2.45.
--------------------------------------------------------------------------
Zn++       sp  NaClO4 30°C 0.10M U        K1=2.65   B2=4.97   1975KAd (59797)3035
--------------------------------------------------------------------------
Zn++       EMF NaClO4 20°C  2.0M U        K1=1.51   B2=2.58   1968FLa (59798)3036
                                          B3=3.36
--------------------------------------------------------------------------
Zn++       oth NaClO4 20°C  2.0M U        K1=1.48   B2=2.41   1965LFa (59799)3037
                                          B3=3.588
Method: optical rotation.
--------------------------------------------------------------------------
Zn++       kin oth/un 25°C  0.0  U        K1=2.26        1951BWa (59800)3038
**************************************************************************
C8H8O3                 HL    m-Anisic acid    CAS 586-38-9  (2804)
3-Methoxybenzoic acid; CH3O.C6H4.COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.10M U        K1=0.9         1960YYa (59906)3039
**************************************************************************
C8H8O3                 HL                     CAS 673-22-3  (3194)
4-Methoxysalicylaldehyde; CH3O.C6H3(OH).CHO
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  75%  U        K1=6.48   B2=12.38  1967KBb (59975)3040
Medium: 75% dioxan, 0.1 M NaClO4
**************************************************************************
C8H8O3                H2L    m-Cresotic acid  CAS 50-85-1  (1244)
4-Methylsalicylic acid; CH3.C6H3(OH).COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  alc/w  25°C  50%  M    M   K1=7.30        1983ADb (59992)3041
                                          K(Zn(phen)+L)=7.16
Medium: 50% v/v EtOH/H2O, 0.10 M NaNO3.
**************************************************************************
C8H8O3                 HL    Phenoxyacetic    CAS 122-59-8  (1153)
Phenoxyethanoic acid; C6H5.O.CH2.COOH
--------------------------------------------------------------------------
```

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	none	25°C	0.15M	C	T H	K1=0.73		1990AMb	(60030)3042

Data for 10-45 C

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	oth/un	25°C	0.10M	U		K1=0.5		1962SYa	(60031)3043

****

C8H8O3S HL CAS 3959-08-8 (4509)

Carboxymethyl phenyl sulfoxide; HOOC.CH2.SO.C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U	M	K1=1.96		1972SGa	(60051)3044
							K(Zn(bpy)+L)=1.89			

Medium: 50% dioxan, 0.1 M NaClO4

****

C8H8O4 H3L CAS 102-32-9 (1826)

3,4-Dihydroxyphenylethanoic acid; C6H3(OH)2.CH2COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	30°C	0.10M	U		K1=8.80	B2=15.17	1966APb	(60066)3045

****

C8H8O4 HL CAS 520-45-6 (4478)

3-Acetyl-2-hydroxy-6-methylpyran-4-one, Dehydroethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	35°C	50%	U		K1=3.78	B2=7.17	1971MAa	(60077)3046

Medium: 50% dioxan, 0.1 M NaClO4

****

C8H8O4 L (601)

4,5-Dimethoxy-1,2-benzoquinone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	nmr	non-aq	34°C	100%	U	M			1981KKc	(60110)3047
							K(ZnCl2+L)=2.62			

Medium: nitromethane

****

C8H8O4S HL CAS 3959-23-7 (4510)

Carboxymethyl phenyl sulfone; HOOC.CH2.SO2.C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U	M	K1=1.87		1972SGa	(60118)3048
							K(Zn(bpy)+L)=1.83			

Medium: 50% dioxan, 0.1 M NaClO4

****

C8H8O5 H2L CAS 5629-08-3 (679)

7-Oxy-bicyclo[2.2.1]-hept-5-ene-2,3-dicarboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	37°C	0.15M	C		K1=4.119 B(ZnHL)=8.017 B(ZnHL2)=12.090	1988HYa (60121)	3049

****

C8H9N L CAS 17618-94-9 (300)
2-Allylpyridine; C5H4N.CH2.CH:CH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=1.6	1974ILa (60143)	3050

****

C8H9NOS HL CAS 4822-44-0 (3240)
N-(Mercaptoacetyl)aniline (thioglycolanilide); C6H5.NH.CO.CH2.SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	oth	diox/w	30°C	70%	U		B2=16.80	1973BSa (60155)	3051

Medium: 0.1 M KCl

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=10.38 B2=19.26	1961MAe (60156)	3052

****

C8H9NO2 HL C-Phenylglycine CAS 2835-06-5 (6511)
2-Amino-2-phenylethanoic acid, 2-aminophenylethanoic acid; C6H5.CH(NH2)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	NaClO4	25°C	1.0M	C	M	B(ZnLA)=5.20 B(ZnLA2)=8.35 B(ZnL2A)=10.64	1999VKc (60169)	3053

Method: polarography. Medium pH: 8.5. A is 4-picoline.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	M		K1=4.13 B2=7.85	1990SMa (60170)	3054

****

C8H9NO2 HL CAS 56-91-7 (3225)
2-Aminomethylbenzoic acid; H2N.CH2.C6H4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	35°C	50%	U		K1=5.0 B2=11.1	1958YSa (60178)	3055

****

C8H9NO2 HL (6326)
2-Hydroxy-5-amino-acetophenone; (H2N)(HO)C6H3.CO.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

Zn++ gl diox/w 40°C 50% U K1=6.65 1975PPa (60186)3056
Data also for 5 other 5-substituted analogues
****
C8H9NO2 HL CAS 1726-86-9 (1487)
2-Hydroxy-5-methylbenzaldehyde oxime; CH3.C6H3(OH).CH:NOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 20°C 0.10M U K1=7.0 B2=14.30 1965BEb (60193)3057
****
C8H9NO2 HL CAS 17194-82-0 (1382)
2-Hydroxyacetophenone oxime; HO.C6H4.C(CH3):NOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 50% U K1=5.79 1982UVa (60206)3058

Zn++ gl diox/w 30°C 75% U K1=9.19 1976IKa (60207)3059
Medium: 75% Dioxan/H2O, 0.1 M KNO3. Data also for 8 phenyl substituted
analogues (3-Me, 5-Me, 3-Cl, 5-Cl, 5-Br, 3-Br, 5-I, 5-NO2)

Zn++ gl diox/w 30°C 75% U K1=8.85 1958KVa (60208)3060
Medium: 75% dioxan, 0.1 M NaClO4
****
C8H9NO2 L CAS 1849-49-6 (5907)
5'-Deoxypyridoxal

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M M K1=2.40 1990SMa (60243)3061
K(ZnL+H)=6.09

Zn++ gl KCl 25°C 1.00M C K1=2.33 1989MSb (60244)3062
K(ZnL+H)=7.10
****
C8H9NO2 HL CAS 119-68-6 (1275)
N-Methyl-anthranilic acid; CH3.NH.C6H4.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 35°C 50% U K1=3.3 B2=5.8 1958YSa (60261)3063
****
C8H9NO2 HL (2591)
N-Phenyl-N-acetohydroxamic acid; CH3.CO.N(OH)C6H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.20M C K1=4.34 B2= 8.12 2000FEc (60278)3064
B(ZnH-1L2)=-1.9
****

C8H9NO2 HL Phenyl-glycine CAS 103-01-5 (626)
N-Phenylaminoethanoic acid; C6H5.NHCH2COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	1.0M	U	M	K1=4.48 B2= 7.73 K3=2.16 B(ZnLA)=6.50 B(ZnLA2)=9.10 B(ZnL2A)=10.48	1995KDa (60305)	3065

Medium pH 8.50. HA is propanoic acid.

Zn++	gl	NaClO4	25°C	0.10M	U	M	K(Zn(phen)+L)=3.43	1984CMa (60306)	3066
Zn++	gl	alc/w	21°C	50%	M		B2=4.43 B(ZnH-1L)=-6.02	1984LOc (60307)	3067
Zn++	gl	alc/w	21°C	50%	M		K1=3.07 B2=5.86 B(ZnHL)=9.99	1984LOd (60308)	3068
Zn++	gl	NaClO4	25°C	0.10M	U	M	K(Zn(bpy)+L)=3.33	1983CLc (60309)	3069
Zn++	gl	NaClO4	25°C	0.10M	U		K1=3.00	1979CXa (60310)	3070
Zn++	gl	oth/un	25°C	0.10M	U		K1=2.6	1959SYc (60311)	3071

****

C8H9NO2 HL CAS 5330-97-2 (6248)
Phenylacetohydroxamic acid; C6H5.CH2.CO.NH.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	KNO3	30°C	0.50M	C		K1=4.84	1983BNa (60324)	3072

Method: polarography.

Zn++	gl	NaClO4	30°C	0.10M	U	T	H		1981RSc (60325)	3073

Data for 30-50 C. DH(K1)=-21.5 kJ mol-1, DS(K1)=38 J K-1 mol-1.
K(Zn(bpy)+L)=5.47, DH=-19.6, DS=40; K(Zn(phen)+L)=5.50, DH=-20.2, DS=39.

Zn++	gl	NaClO4	30°C	0.10M	U	M	K1=5.67 B2=10.64 K(Zn(phen)+L)=5.50	1980RSb (60326)	3074
Zn++	gl	KNO3	30°C	0.10M	U	M	K1=5.67 K(Zn(His)+L)=4.47	1980RSc (60327)	3075
Zn++	gl	NaClO4	30°C	0.10M	U	T	H	1980RSe (60328)	3076

DH(K1)=-21.5 kJ mol-1, DS(K1)=38 J K-1 mol-1; DH(K2)=-22.8, DS(K2)=20.

****

C8H9NO2S HL CAS 104-18-7 (4575)

(4-Aminophenylthio)ethanoic acid; H2N.C6H4.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.05M	M		K1=3.65		1975DPb	(60367)3077

****

C8H9NO3 HL Pyridoxal CAS 65-22-5 (110)
3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinecarboxaldehyde;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=2.32		1981TMe	(60421)3078
Zn++	gl	KCl	25°C	0.50M	U	M	K1=2.32		1966LHa	(60422)3079
							B(ZnL(Gly))=8.43			
							B(ZnL2(Gly)2)=16.86			
							K(ZnL(Gly)+H)=7.34			

****

C8H9NO3 H2L CAS 26071-07-8 (209)
5-Methylsalicylhydroxamic acid; CH3.C6H3(OH).CO.NH.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	EMF	diox/w	30°C	50%	U		K1=4.76		1977DJa	(60435)3080

Medium: 50% dioxan, 0.1 M NaClO4

****

C8H9NO3S HL CAS 72678-98-9 (8333)
2-(2-Furanyl)-4-thiazolidinecarboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	30°C	0.10M	U	IH	K1=5.26	B2= 9.89	1983RKb	(60456)3081

At I=0.0, K1=5.43, K2=4.74. Data for 25-50 C. DH(K1)=-30.7 kJ mol-1, DS(K1)=22.3 J K-1 mol-1; DH(K2)=-27.0, DS(K2)=13.4.

****

C8H9NO4 H2L Mimosinic acid (2309)
3-(3-Hydroxy-4-oxo-1,4-dihydropyridin-1-yl)propanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	37°C	0.15M	C		K1=6.86	B2=12.31	1979SPd	(60466)3082
							K(ZnL+H)=3.9			
							K3 <1.6			

****

C8H9NO4 HL CAS 78257-51-9 (887)
4-Ethoxypyridine-2-carboxylic acid N-oxide; C2H5O.C5H3N-O(COOH)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	30°C	0.10M	U	T	K1=3.80	B2=6.42	1982RRa	(60476)3083

****

C8H9NO4 H2L (4520)
Dehydroethanoic acid oxime;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	35°C	50%	U			1971MAa	(60483)3084
							K(Zn+HL)=3.57		
							K(Zn+2HL)=6.60		

Medium: 50% dioxan, 0.1 M NaClO4

****

C8H9NO4S H2L CAS 7717-21-7 (3846)
N-(Phenylsulfonyl)aminoethanoic acid; C6H5SO2NHCH2COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	NaClO4	25°C	0.10M	U	M		1991GBb	(60513)3085
							B(Zn(bpy)L)=8.96		
							K(Zn+bpy+H-1L)=11.98		
							K(Zn(bpy)+L)=3.66		
							K(Zn(bpy)+H-1L)=6.68		
Zn++	gl	alc/w	30°C	50%	U			1967GMb	(60514)3086
							K(Zn+H2L=ZnHL+H)=1.87		
							K(ZnHL+H2L=Zn(HL)2+H)=2.10		
							K(ZnHL2+H)=6.61		
							K(ZnL2+H)=7.88		

Medium: 50% EtOH

****

C8H9NO5S H2L (6513)
2-Amino-4-sulfobenzeneethanoic acid; NH2.CH(C6H4HSO3)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	M		K1=4.18 B2=7.49	1990SMa	(60521)3087

****

C8H9N2O2F3S HL CAS 58157-03-2 (212)
2-(Trifluoromethanesulfonamidoethyl)pyridine; C5H4NCH2CH2S(:O)2NHCF3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	45%	M		K1=7.4(2) B2=8.6(3)	1984MYa	(60528)3088

****

C8H9N2O3F HL Ftorafur CAS 17902-23-7 (6866)
5-Fluoro-1-(tetrahydro-2-furfuryl)uracil, tegafur;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	M	M		1993SKe	(60536)3089
							K(ZnA+L)=4.6		

A:1,4,7,10-Tetraazacyclododecane.

****

C8H9N3 L CAS 7471-05-8 (3198)
2,2'-Pyridylimidazoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U		K1=6.0	B2=11.0	1956HFa (60541)	3090

****

C8H9N3OS L (4573)
1-Benzoylthiosemicarbazide; C6H5.CO.NH.NH.CS.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	alc/w	25°C	80%	U	TIH	K1=8.24		1985BAb (60549)	3091

In 0.067 M KCl. When I=0.133, K=8.40; I=0.200, K=8.60. DH=-34.6 kJ mol-1, DS=37.5 J K-1 mol-1

****

C8H9N3OS H2L CAS 5351-90-6 (2103)
Salicylidenethiosemicarbazone; HO.C6H4.CH:N.NH.CS.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	alc/w	20°C	50%	U		K1=6.9	B2=12.8	1959HOa (60555)	3092

****

C8H9N3O7 H2L Uramildiacetic CAS 13055-06-5 (185)
5-Amino-2,4,6-trioxo-1,3-perhydrodiazimino-N,N-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	cal	KNO3	25°C	0.1M	C	H			1981CSb (60596)	3093

DH(K1)=-19.7 kJ mol-1, DS=167 K J mol-1

Zn++	gl	KNO3	25°C	0.10M	U	T M			1981SVa (60597)	3094
							K(ZnL+Gly)=3.89			

At 20 C: K(ZnL+Gly)=3.93; 30 C: 3.78; 40 C: 3.69

Zn++	gl	R4N.X	25°C	0.10M	C		K1=13.39	B2=16.69	1975JTa (60598)	3095
Zn++	oth	KNO3	25°C	0.10M	U		K1=12.21		1972FVa (60599)	3096
Zn++	gl	oth/un	20°C	0.0	U		K2=3.2		1948SBa (60600)	3097

****

C8H10NO6P H3L Codecarboxylase CAS 41468-25-1 (2555)
Pyridoxal-5-phosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	M		K1=3.75		1990SMa (60697)	3098
							K(ZnL+H)=6.53			

```
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 1.00M C    M   K1=3.47        1984SMc (60698)3099
                                           K(ZnL+H)=6.71
                                           K(ZnHL+H)=5.17
Ternary complexes with 2-amino-3-phosphonopropionic acid.
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.50M U    M   K1=3.6         1970FEa (60699)3100
                                           K(ZnL+H)=6.30
                                           K(ZnHL+H)=5.60
                                           B(ZnL(Gly))=10.28
                                           B(ZnL(Gly)2)=13.79
B(ZnL2(Gly)2)=18.05, K(ZnL(Gly)+H)=7.45, K(ZnHL(Gly)+H)=5.44,
K(ZnL2(Gly)2+H)=8.32, K(ZnHL2(Gly)2+H)=6.94. Data also for Ala complexes.
********************************************************************************
C8H10N2O2               L                      CAS 16947-63-0  (3828)
2,6-Dimethyl-4-nitroaniline; (CH3)2.C6H2(NO2).NH2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U    M                   1965SSe (60728)3101
                                           K(ZnCl2+L)=0.36
Medium: acetone
********************************************************************************
C8H10N2O2              HL                     CAS 2444-13-5  (2763)
2-(2'-Pyridyl)-2-aminopropanoic acid; C5H4N.C(CH3)(NH2)COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M M        K1=4.93   B2=9.05   1976RNa (60732)3102
B2=9.74 (racemic ligand)
********************************************************************************
C8H10N2O2               L                      CAS 21203-55-4  (5518)
3-Nitro-2,4,6-trimethylpyridine;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.50M U        K1=1.4         1983BEb (60738)3103
********************************************************************************
C8H10N2O2              HL                       (3227)
N-(2'-Pyridylmethyl)glycine; C5H4N.CH2.NH.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=7.6         1965LCa (60742)3104
********************************************************************************
C8H10N2O4             H2L    Mimosine         CAS 2116-55-4  (2308)
2-Amino-3-(3-hydroxy-4-oxo-1,4-dihydropyridin-1-yl)propanoic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
```

Zn++ gl KNO3 37°C 0.15M C K1=6.5 B2=12.27 1979SPd (60753)3105
B(ZnHL)=13.84
B(ZnHL2)=19.76
B(ZnH2L2)=26.77
B3=14.5
Also B(Zn2L)=10.21; B(Zn2L2)=19.01; B(Zn2HL2)=23.88; B(Zn2L3)=22.8.
****
C8H10N2O4 H2L Isomimosine CAS 60384-61-4 (2314)
2-Amino-3-(5-hydroxy-4-oxo-1,4-dihydropyridin-2-yl)propanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 37°C 0.15M C K1=7.0 B2=12.74 1980SHb (60760)3106
B(ZnHL)=14.88
B(ZnHL2)=21.07
B(ZnH2L2)=28.78
B2=14.9
B(Zn2HL2)=25.89; B(Zn2L2)=20.4; B(Zn2L)=10.1
****
C8H10N2S L CAS 538-28-3 (2599)
2-Benzyl-2-thiopseudourea; C6H5.CH2.S.C(:NH)(NH2)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ ISE mixed 25°C 82% U K1=4.68 B2=6.20 1979TBb (60765)3107
Medium: 82% formamide
****
C8H10N2S L (2598)
2-Tolylthiocarbamide; CH3.C6H4.NH.CS.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ ISE mixed 25°C 82% U K1=1.75 1979TBb (60770)3108
Medium: 82% formamide
****
C8H10N3OCl HL CAS 5756-79-6 (4578)
3-Ethyl-3-hydroxy-1-(2-chlorophenyl)triazene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 70% U K1=5.94 B2=10.29 1968DSa (60782)3109
Medium: 70% dioxan, 0.1 M KCl
****
C8H10N3OCl HL CAS 5756-78-5 (4579)
3-Ethyl-3-hydroxy-1-(4-chlorophenyl)triazene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 70% U K1=6.35 B2=10.96 1968DSa (60787)3110
Medium: 70% dioxan, 0.1 M KCl

```
**************************************************************************
C8H10N4O2              HL    Cyclo-Gly-His      (1685)
Cyclo-(glycyl-histidyl)
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C   H    K1=1.71        1994AIa (60806)3111
DH(K1)=-10.0 kJ mol-1, DS(K1)=-0.8 J K-1 mol-1.
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.20M U        K1=2.25   B2=3.84   1985KIb (60807)3112
**************************************************************************
C8H10O5                H2L                      CAS 145-73-7  (138)
7-Oxa-bicyclo[2.2.1]-heptan-2,3-dicarboxylic acid;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   30°C 0.10M U        K1=4.79        1995KFa (60862)3113
**************************************************************************
C8H10O7                H2L                      (2958)
5,6-Dihydroxy-7-oxa-bicyclo[2.2.1]heptan-2,3-dicarboxylic acid;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   30°C 0.10M U        K1=4.16        1995KFa (60883)3114
**************************************************************************
C8H10O9                H4L                      CAS 137172-86-2  (6612)
SS-Oxydisuccinic acid; O(CH(COOH)CH2.COOH)2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C        K1=6.62        1992MMa (60898)3115
                                          K(ZnL+H)=3.64
                                          K(ZnHL+H)=2.96
                                          K(ZnH2L+H)=2.49
                                          K(Zn+HL)=4.29
K(Zn+H2L)=2.46, K(Zn+H3L)=1.55
**************************************************************************
C8H10O9                H4L                      CAS 84852-72-2  (6611)
meso-Oxydisuccinic acid; O(CH(COOH)CH2.COOH)2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C        K1=7.60        1992MMa (60910)3116
                                          K(ZnL+H)=3.95
                                          K(ZnHL+H)=2.24
                                          K(ZnH2L+H)=1.6
                                          K(Zn+HL)=5.58
K(Zn+H2L)=2.97, K(Zn+H3L)=0.63
**************************************************************************
C8H10O10               H4L                      (5894)
```

1-Hydroxy-3-oxapentane-1,2,4,5-tetracarboxylic acid;
HO.CH(COOH).CH(COOH).O.CH(COOH).CH2(COOH)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	C		K1=6.31		1989MMd (60922)	3117
							K(ZnL+H)=3.47			
							K(ZnHL+H)=2.85			

C8H11N L CAS 622-39-9 (303)
2-(n-Propyl)pyridine; C5H4N.CH2.CH2.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=1.3		1974ILa (60955)	3118

C8H11N L CAS 529-21-5 (2002)
3-Ethyl-4-methylpyridine; CH3.C5H3N.C2H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=1.58	B2=2.71	1975LPc (60971)	3119
							B3=3.36			

C8H11NO L CAS 20609-07-8 (298)
2-(2'-Hydroxypropyl)pyridine; C5H4N.CH2.CH(OH).CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=1.45		1974ILa (60995)	3120

C8H11NO L (5433)
2-(2-Pyridyl)-2-propanol; CH3.C(OH)(C5H4N).CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U		K1=1.88		1981CBa (61001)	3121

C8H11NO HL Tyramine CAS 51-67-2 (1015)
2-(4-Hydroxyphenyl)ethylamine; HO.C6H4.CH2.CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	1.00M	C	M	K1=8.52		1976RSd (61011)	3122
							K(Zn(ATP)+L)=7.01			

C8H11NO L CAS 2859-67-8 (2037)
3-(3-Pyridyl)-1-propanol; C5H4N.CH2.CH2.CH2OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo

```
------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=1.00   B2=2.08   1981LRa (61024)3123
******************************************************************************
C8H11NO2              H2L    Octopamine       CAS 770-05-8  (2761)
1-(4-Hydroxyphenyl)-2-aminoethanol; H2N.CH2.CH(OH).C6H4.OH
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 1.00M C    M                   1976RSd (61038)3124
                                        K(Zn+HL)=5.96
                                        K(Zn(ATP)+HL)=4.53
******************************************************************************
C8H11NO2              H2L    Dopamine         CAS 579-59-9  (251)
2-(3',4'-Dihydroxyphenyl)ethylamine; (HO)2.C6H3.CH2.CH2.NH2
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M U    M   K1=11.43       1995NAc (61063)3125
                                        B(ZnHL)=18.89
                                        B(ZnLCu)=19.87
                                        B(ZnLNi)=14.52
------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C        B2=18.05       1979KGa (61064)3126
                                        B(ZnHL)=20.21
                                        B(ZnH2L2)=38.93
                                        B(ZnHL2)=28.67
------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 1.00M C    M                   1976RSd (61065)3127
                                        K(Zn(ATP)+L)=10.05
------------------------------------------------------------------------------
Zn++       gl  NaNO3  20°C 0.50M U                        1974GSa (61066)3128
                                        B(ZnHL)=19.33
******************************************************************************
C8H11NO3               HL    Vitamin B6       CAS 65-23-6  (254)
5-Hydroxy-6-methyl-3,4-pyridinedimethanol, Pyridoxine;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       vlt NaClO4 25°C  1.0M C        K1=1.72   B2= 2.93  1997KKb (61108)3129
Method: polarography. Medium pH 8.50.
******************************************************************************
C8H11NO3              H2L    Noradrenaline    CAS 138-65-8  (253)
Norepinephrine, 3,4-Dihydroxyphenylethanolamine; (HO)2C6H3.CH(CH2.NH2).OH
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C        B2=17.82       1981GKb (61148)3130
                                        B(ZnHL)=19.12
                                        B(ZnH2L2)=36.78
                                        B(ZnHL2)=27.48
```

```
                                        B(ZnH-1L2)=6.38
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 1.00M C    M                  1976RSd (61149)3131
                                        K(Zn+HL)=9.31
                                        K(Zn(ATP)+L)=8.35
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  20°C 0.50M U                       1974GSa (61150)3132
                                        B(ZnHL)=17.65
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U        K1=10.69  B2=19.79  1966JNa (61151)3133
K1 adjusted to give hypothetical microscopic constant
********************************************************************************
C8H11NO8              H4L                      CAS 7408-20-0  (2608)
Amino-di(butanedioic acid);HN(CH(COOH)CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       cal KNO3   25°C 0.50M U   H                   2002LCa (61194)3134
                                        DH(K1)=-8.46 kJ mol-1
                                        DH(B2)=-19.09
                                        DH(Zn+HL)=+13.91
for I=1.0 M: DH(K1)=-8.64; DH(B2)=-20.13; DH(Zn+HL)=+9.79
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.10M U        K1=10.30       1994VKa (61195)3135
                                        K(Zn+HL)=4.16
********************************************************************************
C8H11NO8P2            H5L                       (6894)
N-(4-Carboxyphenyl)aminomethylenedi(phosphonic acid); HOOC.C6H4.NH.CH(PO3H2)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=11.09       1990GKa (61224)3136
                                        K(Zn+HL)=9.10
                                        K(Zn+H2L)=5.25
********************************************************************************
C8H11N3O               HL                       CAS 5956-70-7  (4529)
3-Hydroxy-3-methyl-1-(4-tolyl)triazene; CH3.C6H4.N:N.N(OH).CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  70%  U        K1=7.46   B2=13.32  1970DSb (61242)3137
Medium: 70% dioxan, 0.1 M KCl
********************************************************************************
C8H11N3O2              HL                       CAS 5756-72-9  (4533)
3-Hydroxy-3-methyl-1-(4'-methoxyphenyl)triazene; CH3O.C6H4.N:N.N(OH).CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  70%  U        K1=7.84   B2=13.90  1970DSb (61255)3138
Medium: 70% dioxan, 0.1 M KCl
```

****

C8H11N3O3 HL CAS 2497-02-1 (3230)
Acetyl-L-histidine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	M		K1=2.91	B2=5.74	1993GVa (61270)	3139
Zn++	gl	KCl	25°C	0.20M	C		K1=2.61		1989BKa (61271)	3140
							K(Zn+HL=ZnL+H)=-4.48			
Zn++	gl	oth/un	25°C	0.16M	U		K1=2.50	B2=4.80	1960MEa (61272)	3141
							K3=2.15			
							K4=1.8			

****

C8H11N5O3 HL Acyclovir CAS 59277-89-3 (8696)
2-Amino-1,9-dihydro-9-[(2-hydroxyethoxy)methyl]-6H-purin-6-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	cal	NaNO3	25°C	0.10M	C	HM			2001HCa (61290)	3142
							K(Zn+HL)=0.71			

DH(Zn+HL)=-18.6 kJ mol-1, DS(Zn+HL)=-50 J K-1 mol-1.

****

C8H11O2F3 HL CAS 22767-90-4 (1249)
1,1,1-Trifluoro-5,5-dimethyl-2,4-hexanedione; F3C.CO.CH2.CO.CH(CH3)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=7.27	B2=13.73	1972UDa (61298)	3143

Medium: 75% v/v dioxan, 0.01 Me4NClO4

****

C8H12N2 H2L CAS 6971-57-9 (1099)
6-Methyl-2-(methylaminomethyl)pyridine; (CH3.NH.CH2)(CH3)C5H3N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	35°C	50%	U T H		K1=3.92	B2=7.68	1966WRb (61365)	3144

Medium: 50% dioxan, 0.1 M KNO3. K1=4.67(15 C),3.93(25 C); K2=4.58(15 C), 3.81(25 C). By calorimetry: DH(B2)=-16.3 kJ mol-1, DS=93.6 J K-1 mol-1(25 C)

****

C8H12N2O L (3231)
2-Aminomethyl-N-2'-hydroxyethylpyridine; C5H4N.CH2.NH.CH2.CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	oth/un	25°C	0.10M	U		K1=5.2		1964LMb (61376)	3145

****

C8H12N2O2 HL Pyridoxamine CAS 85-87-0 (1175)
4-(Aminomethyl)-5-hydroxy-6-methyl-3-pyridinemethanol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	37°C	0.15M	U	M		1983ERa	(61399)3146
							B(ZnHL(Gly)2)=23.30		
							B(ZnH4L2(Gly))=47.910		
Zn++	gl	NaNO3	37°C	0.15M	U	M		1983ERa	(61400)3147
							B(ZnH2LA4)=34.307		
							B(ZnH2LA2)=28.125		
							B(ZnLA3)=16.203		
							B(ZnL2A)=16.150		
A=imidazole									
Zn++	gl	NaNO3	37°C	0.10M	U		K1=6.411 B2=11.874	1982ESa	(61401)3148
Zn++	gl	NaNO3	30°C	0.50M	M	M	K1=5.88 B2=10.94	1982MAd	(61402)3149
							B(ZnH2L2)=26.59		
							B(Zn(en)L)=10.37		
							B(ZnH(en)L)=18.92		
							B(ZnH-1(en)L)=0.82		
Zn++	vlt	NaCl	25°C	0.10M	U		K1=6.60 B2=11.16	1977ERa	(61403)3150
							B3=13.60		
							B4=15.56		
Zn++	gl	KNO3	25°C	0.10M	U		K1=5.68	1957GMa	(61404)3151

****

C8H12N2O3S HL CAS 551-16-6 (6858)
6-Aminopenicillanic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	37°C	0.10M	U	M	K1=1.90	1994MGc	(61460)3152
							B(Zn(gly)L)=7.06		
							*K(Zn(gly)L)=-7.84		
							B(Zn(bpy)L)=7.41		
							*K(Zn(bpy)L)=-7.95		
B(ZnAL)=4.76. A is imidazole									
Zn++	gl	NaNO3	37°C	0.10M	U		K1=1.90	1991MGb	(61461)3153
							*K(ZnL(H2O)2)=-10.23		

****

C8H12N2O3S HL CAS 16968-98-2 (4582)
d-Bisnorbiotin

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U	M	K1=2.40	1969SMc	(61466)3154
							K(Zn(bpy)+L) = 2.26		

Medium: 50% dioxan, 0.1 M NaClO4

****

C8H12N2O7 H3L CAS 43101-36-6 (669)

Glycylglycine-N,N-diethanoic acid; (HOOC.CH2)2N.CH2.CO.NH.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=7.94		1974MMb (61475)	3155
							K(ZnL+H)=3.01			

****

C8H12N4B- L (7238)

(Pyrazol-1-yl)dihydro(3,5-dimethylpyrazol-1-yl)borate; C3H3N2.BH2.C3HN2(CH3)2-

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	dis	non-aq	25°C	100%	U				1996KSa (61542)	3156
							K(Zn+2HL=ZnL2(org)+2H)=3.02			

By solvent extraction into CHCl3

****

C8H12N4O3 HL Gly-His CAS 3486-76-8 (273)

Glycyl-histidine; H2N.CH2.CO.NH.CH(CH2.C3H3N2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=3.91		1992LPc (61581)	3157
							B(Zn2H-1L2)=-2.83			
Zn++	gl	KNO3	25°C	0.30M	C		K1=3.85	B2=8.85	1985RDa (61582)	3158
							B(ZnH-1L)=-2.14			
							B(ZnHL)=11.54			
							B(ZnH-1L2)=1.31			
Zn++	gl	KNO3	25°C	0.10M	C	M	B2=7.73		1984ACa (61583)	3159
							B(ZnHL)=10.70			
							B(Zn2L2)=11.11			
							B(Zn2H-1L2)=4.08			
							B(Zn2H-2L2)=-2.62			
B(CuZnH-1L)=6.71; B(CuZnH-1L2)=11.3; B(CuZnH-2L2)=4.3										
Zn++	gl	KCl	25°C	0.20M	C	M	K1=3.98	B2=8.03	1983FSc (61584)	3160
							B(ZnHL)=10.87			
							B(ZnH-1L)=-2.75			
							B(ZnH-1L2)=0.37			
							B(ZnH-2L)=-12.66			
B(ZnHL(His))=17.62; B(ZnL(His))=10.32; B(ZnH-1L(His))=1.92										
Zn++	gl	KNO3	37°C	0.15M	U		K1=3.65	B2=6.89	1975APb (61585)	3161
							K(2ZnL=Zn2L2)=3.30			
							K(Zn2H-1L2+H)=7.39			
							K(Zn2H-2L2+H)=6.19			

```
**************************************************************************
C8H12N4O3              HL    His-Gly          CAS 2578-58-7  (274)
Histidyl-glycine; H2N.CH(CH2.C3H3N2).CO.NH.CH2.COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M C T      K1=4.99        2003RRa (61619)3162
Data for 35 and 45 C.
--------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C        K1=5.07   B2=9.54   1983FSc (61620)3163
--------------------------------------------------------------------------
Zn++       gl  KNO3   37°C 0.15M U        K1=4.25   B2=8.46   1975APb (61621)3164
                                         K(Zn+HL)=2.37
--------------------------------------------------------------------------
Zn++       gl  none   21°C  0.0  M        K1=4.86   B2=9.54   1974YAa (61622)3165
**************************************************************************
C8H12N5O4P             H2L                      CAS 106941-25-7  (6693)
9-(2-(Phosphonylmethoxy)ethyl)adenine; H2O3P.CH2.O.CH2.CH2.adenine
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M M    M   K1=1.96        2000KLb (61642)3166
                                         K(PtLA+Zn)=1.96
A=diethylenetriamine
**************************************************************************
C8H12O4                H2L                      CAS 1127-08-8  (72)
Cyclohexane-1,1-dicarboxylic acid; C6H10.(COOH)2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=2.26        1972RVh (61701)3167
**************************************************************************
C8H12O4                H2L                      CAS 6018-58-3  (960)
Hex-1-ene-6-dioic acid; CH2:CH.CH2.CH2.CH2.CH(COOH)2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=2.68        1975IPa (61724)3168
**************************************************************************
C8H12O4                H2L                      CAS 2305-32-0  (2225)
L-trans-Cyclohexane-1,2-dicarboxylic acid; C6H10.(COOH)2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       vlt oth/un 25°C  0.1M U        K1=2.3         1995FFa (61729)3169
**************************************************************************
C8H13NO3               H3L                        (4539)
(1-Acetonyl)ethylideneiminopropanoic acid;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
```

```
--------------------------------------------------------------------------------
Zn++       EMF oth/un   ?     ?  U        K1=7.42        1972MGb (61746)3170
********************************************************************************
C8H13NO6              H3L                          (3835)
2-Amino-2-carboxypropane-N,N-diethanoic acid; HOOCC(CH3)2N(CH2COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   20°C 0.10M U        K1=8.89        1974RMf (61750)3171
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U        K1=12.45       1966IMa (61751)3172
********************************************************************************
C8H13NO6              H3L                          (5681)
2-Aminobutanoic-N,N-diethanoic acid; CH3CH2CH(COOH)N(CH2COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   20°C 0.10M U        K1=10.35       1974RMf (61778)3173
********************************************************************************
C8H13NO6              H3L                          (3232)
N-(Carboxymethyl)iminodipropanoic acid; HOOC.CH2.N(CH2.CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    30°C 0.10M U        K1=8.0         1953CMa (61805)3174
********************************************************************************
C8H13NO6S             H3L                          (5675)
2-Mercapto-1-aminoethane-N,N,S-triethanoic acid; HOOC.CH2.S.CH2.CH2.N(CH2COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=10.92       1975POa (61813)3175
                                         K(Zn+HL)=3.05
********************************************************************************
C8H13N3O2              HL    DiMe-Histidine     (1193)
N-Dimethylhistidine; (CH3)2N.CH(CH2.C3H3N2).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M M        K1=3.53   B2=6.65   1993GVa (61859)3176
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C        K1=6.339  B2=9.04   1976RIa (61860)3177
                                         K(Zn(DL-L))=6.344
                                         B(Zn(DL-L)2)=9.68
                                         B(Zn(OH)L)=10.60
********************************************************************************
C8H13N6O4P            H2L                          (7462)
9-[2-(Phosphonomethoxy)ethyl]-2,6-diaminopurine;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
```

```
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M M        K1=2.78        1999BSa (61870)3178
                                          K(Zn+HL)=1.56
********************************************************************************
C8H14N2                 L                       (6727)
1-Butyl-2-methylimidazole
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M C        K1=1.20   B2=4.96   1993BKc (61886)3179
                                          B3=6.97
                                          B4=9.73
                                          B5=10.64
********************************************************************************
C8H14N2O                L                       (6728)
1-Butyl-2-hydroxymethylimidazole
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M C        K1=2.22   B2=4.97   1993BKc (61891)3180
                                          B3=6.41
                                          B4=8.06
********************************************************************************
C8H14N2O3              HL                       (6599)
2,3-Dehydro-N-glycyl-leucine; NH2.CH2.CO.NH.C(COOH):CH.CH(CH3)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C        K1=3.13   B2=5.84   1994JBa (61903)3181
                                          B(ZnH-1L)=-5.29
********************************************************************************
C8H14N2O3              HL                       (6601)
2,3-Dehydro-N-valyl-alanine; NH2.CH(CH(CH3)2)CO.NH.C(COOH):CH2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C        K1=2.37        1994JBa (61908)3182
                                          B(ZnH-1L)=-4.18
                                          B(ZnH-1L2)=-2.03
                                          B(ZnH-2L2)=-10.41
********************************************************************************
C8H14N2O3              HL    Ala-Pro          CAS 13485-59-1  (256)
Alanyl-proline; H2N.CH(CH3).CO.NC4H7.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.20M U        K1=3.28   B2=6.21   1982KRc (61914)3183
********************************************************************************
C8H14N2O3              HL    Pro-Ala          CAS 6422-36-2  (263)
Prolyl-alanine; C4H8N.CO.NH.CH(CH3).COOH
```

```
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.20M U        K1=3.69   B2=7.32   1982KRc (61925)3184
******************************************************************************
C8H14N2O3              HL                    CAS 21561-97-7  (4448)
dl-Bisnordethiobiotin;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U    M   K1=2.30        1969SMc (61933)3185
                                          K(ZnA+bpy)=2.29
Medium: 50% dioxan, 0.1 M NaClO4
******************************************************************************
C8H14N2O4             H2L                    CAS 124099-98-5  (5607)
1,4-Piperazine-N,N'-diethanoic acid; HOOC.CH2.C4H8N2.CH2.COOH
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       EMF KCl    20°C 0.10M U        K1=3.05        1963IPb (61940)3186
Method: H electrode
******************************************************************************
C8H14N2O4             H2L                    CAS 55033-06-2  (8139)
Azetidine-2-carboxy-1-(2-aminobutaneoic acid)
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=10.25       1989ARa (61950)3187
Fer another  racemate: K1=9.05
******************************************************************************
C8H14N2O6P2            HL                      (7465)
N-(3-Pyridylmethyl)imino-bis(methylphosphonic acid);
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C        K1=9.21        1999MKa (61964)3188
                                          B(ZnHL)=14.92
                                          B(ZnH2L)=19.66
                                          B(ZnH3L)=23.95
                                          B(ZnH-1L)=-0.47
*K(ZnL)=-9.68; K(ZnOH+L)=8.92; K(ZnOH+ZnL=Zn(OH)L+Zn)=-0.29.
******************************************************************************
C8H14N4O                L    Carcinine          (260)
B-Alanyl-histamine; NH2.CH2.CH2.CO.NH.CH2CH2.C3H3N2
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M C        K1=3.53        1994GHb (61975)3189
                                          B(ZnHL)=10.75
******************************************************************************
```

C8H14N4O L (6726)
Sarcosyl-histamine

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	C		K1=3.08	B2=6.31	1994GHb (61982)	3190
							B(ZnHL)=10.01			

****
C8H14N4O5 HL Tetraglycine CAS 637-84-3 (1849)
Glycyl-Glycyl-Glycyl-Glycine; H2N.CH2.CO.NH.CH2.CO.NH.CH2.CO.NH.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	nmr	oth/un	25°C	0.80M	U		K1=2.96		1972RLb (62014)	3191
							K(Zn+HL)=0.75			
Medium: 0.8, 0.2 Zn(NO3)2										
Zn++	gl	KNO3	25°C	0.15M	U		K1=3.14		1958LCa (62015)	3192
Zn++	gl	oth/un	25°C	0.01M	U		K1=2.9		1954PEa (62016)	3193
Medium: ZnSO4										

****
C8H14OS HL (4541)
1-(t-Butyl)-1-mercapto-3-methylprop-1-en-3-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=10.36	B2=20.60	1969UTa (62027)	3194

****
C8H14OS HL (4542)
3-(t-Butyl)-1-mercapto-1-methylprop-1-en-3-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=9.61	B2=19.14	1969UTa (62030)	3195

****
C8H14O2 HL CAS 7307-04-2 (3208)
5,5-Dimethylhexane-2,4-dione; CH3.CO.CH2.CO.C(CH3)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=9.22	B2=17.72	1972UDa (62041)	3196
Medium: 75% v/v dioxan, 0.01 M Me4NClO4										

****
C8H14O2 HL CAS 5292-21-7 (5745)
Cyclohexylethanoic acid; C6H11.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	C	M	K1=2.46		1985STb (62057)	3197

K(Zn(phen)+L)=2.51

****

C8H14O2S2 HL Lipoic acid CAS 1077-28-7 (409)

1,2-Dithiolane-3-pentanoic acid (6,8-Thioctic acid); C3H5S2.(CH2)4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	C		K1=2.47		1978SPd (62068)	3198
For L-lipoic acid: K1=2.41; D-lipoic acid: K1=2.47										
Zn++	gl	diox/w	25°C	50%	U	M	K1=2.57		1969SMc (62069)	3199
							K(Zn(bpy)+L)=2.60			

Medium: 50% dioxan, 0.1 M NaClO4

****

C8H14O4S3 H2L (2526)

3,6,9-Trithiaundecanedioic acid; HOOC.CH2.S.C2H4.S.C2H4.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	oth/un	25°C	0.10M	U		K1=2.25		1971FPa (62117)	3200

****

C8H14O5S2 H2L CAS 4408-66-6 (8332)

Oxybis(ethylenethio)diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	20°C	0.10M	U		K1=1.90		1977CAc (62131)	3201

****

C8H14O7 H2L (241)

Di(carboxymethoxy)ethyl ether; (HOOC.CH2.O.CH2.CH2)2O

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=2.60		1975MTc (62143)	3202

****

C8H15NO2 HL CAS 6949-77-5 (3235)

1-Aminocycloheptanecarboxylic acid; C6H10(NH2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	20°C	0.10M	U		K1=4.61	B2=9.2	1963IPa (62156)	3203

****

C8H15NO4 H2L CAS 33994-68-7 (347)

N-Butyliminodiethanoic acid; C4H9.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=8.12	B2=14.88	1975IPa (62185)	3204

****

C8H15NO5 H2L (3234)

N-(2-Hydroxyethyl)iminodipropanoic acid; HO.CH2.CH2.N(CH2.CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	30°C	0.10M	U		K1=4.6		1954CMa	(62199)3205

****

C8H15NO6 H2L CAS 92511-22-3 (6074)
N-(1,1-Di(hydroxymethyl)ethyl)iminoethanoic acid; (HO.CH2)2C(CH3).N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	1.0M	C		K1=7.96	B2=10.28	1981ASb	(62211)3206
							B(ZnHL)=11.68			
							B(ZnH-1L)=-0.30			

****

C8H15NO6S HL (6380)
2-(D-Arabinosyl)thiazolidine-4-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	C		K1=4.19	B2=7.13	1990GNa	(62219)3207
							B(ZnH-1L2)=-0.18			
							B(ZnH-2L2)=-9.28			

For L-rhamnosyl: K1=3.23, B2=5.57, K(ZnH-1L2)=-1.9, K(ZnH-2L2)=-9.93

****

C8H15NO6S HL (6378)
2-(D-Lyxosyl)thiazolidine-4-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	C		K1=4.19	B2=7.13	1990GNa	(62221)3208
							B(ZnH-1L2)=-0.18			
							B(ZnH-2L2)=-9.28			

Data also for D-xylosyl:K1=4.05,B2=6.86,B(ZnH-1L2)=-0.44,B(ZnH-2L2)=-9.31;
D-ribosyl:3.43,6.1,-1.23,-9.67; D-mannosyl:2.69,4.98,-2.14,-9.99(same order)

****

C8H15N3O4 HL Gly-Ala-Ala CAS 6491-25-4 (6783)
Glycyl-alanyl-alanine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=10.40		1983IMb	(62247)3209
							K(ZnL+H)=9.17			
							K(ZnHL+H)=4.77			

****

C8H16N2O3 HL CAS 83874-82-2 (3838)
6-Acetylamino-2-aminohexanoic acid; CH3.CO.NH.(CH2)4.CH(NH2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo

Zn++ gl NaClO4 25°C 0.10M U K1=4.51 1970GPa (62290)3210
****
C8H16N2O3 HL Gly-Ile CAS 19461-38-2 (2329)
Glycyl-isoleucine; H2N.CH2.CO.NH.CH(CH(CH3).C2H5).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl oth/un 25°C 0.01M U K1=3.8 1954PEa (62318)3211
****
C8H16N2O3 HL Gly-Leu CAS 869-19-2 (255)
Glycyl-leucine; H2N.CH2.CO.NH.CH(CH2.CH(CH3)2).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.20M M M K1=3.858 B2= 6.75 1994VBb (62374)3212
B(ZnH-1L)=-4.052
B(Zn(Ala)L)=8.901, B(Zn(Phe)L)=8.605, B(Zn(Tyr)L)=8.712,
B(Zn(Trp)L)=8.92, B(Zn(His)L)=10.837, B(ZnH(His)L)=16.915.

Zn++ gl KCl 20°C 0.20M U K1=3.50 B2=6.55 1982KRc (62375)3213

Zn++ gl oth/un 20°C 0.01M U K1=3.6 1954PEa (62376)3214
****
C8H16N2O3 HL Leu-Gly CAS 686-50-0 (1248)
Leucyl-glycine; H2N.CH(CH2.CH(CH3)2).CO.NH.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 20°C 0.20M U K1=2.77 B2=5.61 1982KRc (62420)3215

Zn++ gl oth/un 25°C 0.01M U K1=2.89 B2=5.80 1959DLb (62421)3216

Zn++ gl oth/un 25°C 0.01M U K1=3.1 1954PEa (62422)3217
****
C8H16N2O3S2 H2L (8784)
Cysteinyl-cysteine ethyl ester;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M C B2=16.5 2002VGa (62447)3218
B(ZnHL)=17.6
B(Zn2L2)=27.1
For the N-acetyl derivative, B2=17.0, B(Zn3HL4)=54.3, B(Zn2HL4)=46.3.
For the N-acetyl derivative of L-Cys-D-cys ethyl ester, K1=10.2, B2=18.2
****
C8H16N2O4 H2L (267)
1,2-Diaminoethane-N,N'-di(2-propanoic acid); ((CH3)(COOH).CH.NH.CH2)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---

```
Zn++       gl  KNO3   20°C 0.10M U        K1=9.96        1966MKb (62460)3219
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U        K1=10.1        1958ISa (62461)3220
********************************************************************************
C8H16N2O4             H2L                      CAS 13288-40-9  (3237)
1,2-Diaminoethane-N,N'-di(3-propanoic acid); (HOOCCH2CH2NHCH2.)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U    M                   1970DNa (62488)3221
                                          K(ZnL+en)=4.03
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U        K1=10.1        1958ISa (62489)3222
--------------------------------------------------------------------------------
Zn++       gl  KCl    30°C 0.10M U        K1=7.6         1953CCb (62490)3223
********************************************************************************
C8H16N2O4             H2L                        (266)
N,N'-Dimethylethylenediamine-N,N'-diethanoic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=12.61       1993WLa (62519)3224
                                         K(Zn+HL)=4.62
                                         K(ZnL+OH)=2.9
********************************************************************************
C8H16N2O4             H2L                      CAS 38937-66-5  (5912)
N,N-Dihydroxyoctanediamide; HN(OH).CO.(CH2)6.CO.NH(OH)
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C        K1=8.05        1989EHa (62536)3225
                                         B(ZnHL)=14.92
********************************************************************************
C8H16N2O4S2           H4L                        (6947)
2,7-Dicarboxy-3,6-diaza-1,8-octanedithiol;
HS.CH2.CH(COOH)NH.CH2CH2.NH.CH(COOH)CH2.SH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C        K1=20.98       1996LMa (62545)3226
                                         B(ZnHL)=25.74
                                         B(ZnH2L)=29.92
                                         B(Zn(OH)L)=9.94
********************************************************************************
C8H16N2O4S2           H2L                        (1226)
3,6-Dithiaoctanediamine-4,5-dicarboxylic acid; (H2N.C2H4.S.CH(COOH))2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=16.76  B2=23.06  1978MJa (62556)3227
```

****
C8H16N2O5 H2L CAS 20811-97-6 (5461)
1,9-Dicarboxy-2,8-diaza-5-oxanonane (HOOC.CH2.NH.CH2.CH2)2O

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C K1=10.15 1982BTb (62566)3228
****
C8H16N2O6 H2L CAS 50730-95-5 (4548)
Ethylenediiminobis(3-hydroxy-2-propanoic acid);

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ EMF oth/un 20°C 0.10M U K1=10.20 1972DKa (62574)3229

Zn++ gl KNO3 20°C 0.10M U K1=10.20 1970DKa (62575)3230
By spectrophotometry: K1=10.23 in 0.1 M NaClO4
****
C8H16N10 L (7005)
N,N'-Di(2-(5-tetraazolyl)ethyl)-1,2-diaminoethane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaNO3 20°C 0.10M U K1=11.17 1981ESa (62611)3231
****
C8H16O2 HL Valproic acid CAS 99-66-1 (6022)
2-Propylpentanoic acid, dipropylethanoic acid; (CH3.CH2.CH2)2CH.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaCl 37°C 0.15M C K1=1.70 1988BCb (62616)3232
B(ZnH-1L)=-3.65
****
C8H16O2 HL CAS 929-10-2 (5864)
6-Methylheptanoic acid; (CH3)2CH.C(CH2)4.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaNO3 25°C 0.10M C I M K1=1.02 1988LTc (62620)3233
K(Zn(phen)+L)=1.07
Data also for 50% v/v EtOH/H2O, and 50% v/v Dioxan/H2O mixtures
****
C8H16O4 L 12-Crown-4 CAS 294-93-9 (174)
1,4,7,10-Tetraoxacyclododecane; cyclo(-O.(CH2.CH2.O)3.CH2.CH2-)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ nmr non-aq 27°C 100% C K1=2.76 2000SMg (62644)3234
Medium: acetonitrile. Method: competitive 7Li nmr technique.
****

C8H17NO3 L CAS 41775-76-2 (6751)
10-Aza-1,4,7-trioxacyclododecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ EMF alc/w 25°C 95% U K1=3.7 1993BDd (62755)3235
Medium: 95% v/v MeOH/H2O, 0.1 M Et4NClO4
****
C8H17NO4 H2L CAS 6353-68-6 (3238)
N,N-Di-(2-Hydroxypropyl)glycine; (HO.CH2.CH2)2N.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl oth/un 30°C 0.10M U K1=5.20 B2=8.62 1957FCa (62779)3236
****
C8H17N3O2 HL (5973)
1,4,7-Triazacyclononane-1-ethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.50M M K1=14.24 1993CKa (62789)3237
K(Zn(OH)L+H)=10.59
****
C8H17N3O3 HL Gly-Lys CAS 31461-63-9 (5419)
Glycyl-lysine; NH2.CH2.CO.NH.CH(CH2.CH2.CH2.CH2.NH2)COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaNO3 37°C 0.10M C T 1984RRc (62802)3238
B(ZnHL)=13.16
B(ZnH2L2)=26.12
By e.s.r. at 32 C, B(ZnHL)=13.39, B(ZnH2L2)=26.23
****
C8H17N3O4 H2L CAS 100585-61-3 (1588)
3,6,9-Triazaundecanedioic acid; (HOOC.CH2.NH.CH2.CH2)2NH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaCl 25°C 0.15M C K1=13.19 1990JKa (62806)3239
B(ZnHL)=16.72
****
C8H18N2O L (6585)
4,7-Dimethyl-1-oxa-4,7-diazacyclononane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M U K1=6.58 1990CCa (62818)3240
****
C8H18N2O2 L CAS 294-92-8 (654)
1,7-Dioxo-4,10-diazacyclododecane;

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.10M U        K1=6.51        1985NSb (62834)3241
                                         B(ZnH-1L)=-2.1
--------------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.10M C        K1=6.22        1983LCa (62835)3242
********************************************************************************
C8H18N2O2              L                      CAS 122-96-3  (5902)
N,N-Bis(2-hydroxyethyl)piperazine;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaCl   25°C 0.10M C        K1=2.67        1999HLb (62855)3243
                                         B(ZnHL)=9.93
********************************************************************************
C8H18N2O6S2           H2L    PIPES            CAS 5625-37-6  (2798)
Piperazine-1,4-bis(2-ethanesulfonic acid); C4H8N2-(CH2.CH2.SO3H)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=3.42        2001AOa (62885)3244
********************************************************************************
C8H18N4O2              L                      CAS 3216-87-3  (2882)
N,N'-Bis(2-carbamoylethyl)-1,2-diaminoethane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=5.05        1983LIa (62956)3245
********************************************************************************
C8H18N4O2              L                        (6627)
N,N'-Bis(3-aminopropyl)oxamide; (CO.NH.(CH2)3.NH2)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C    M                  1992LJb (62964)3246
                                         B(ZnCuL)=24.9
                                         B(ZnCu2L2)=48.8
                                         B(ZnCu3L3)=72.0
********************************************************************************
C8H19NO5               L    Bis-tris         CAS 6976-37-0  (2827)
Bis-(2-hydroxyethyl)imino-tris(hydroxymethyl)methane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C  1.0M C        K1=2.38        1980SAb (63047)3247
********************************************************************************
C8H19NO6P2             H4L                    CAS 5995-40-4  (1338)
N-Cyclohexyliminobis(methylenephosphonic) acid; C6H11.N(CH2PO3H2)2
--------------------------------------------------------------------------------
```

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C		K1=8.67 B(ZnHL)=16.29 B(ZnH2L)=20.77 B(ZnH-1L)=-0.54 B(ZnH-2L)=-9.93	1999MKa	(63079)3248

*K(ZnL)=-9.21; K(ZnOH+L)=8.85; K(ZnOH+ZnL=Zn(OH)L+Zn)=-0.18.

****

C8H19N2O4P H2L (1577)

1-(N-L-Leucylamino)ethanephosphonic acid; H2NCH(CH2CH(CH3)2)CONHCH(CH3)PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	U		K1=3.761	1995HLb	(63094)3249

****

C8H19N3 L CAS 36532-31-7 (2403)

1,4,8-Triazacycloundecane; cyclo(-NH.C2H4.NH.C3H6.NH.C3H6-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	M		K1=10.41 B(ZnL(OH))=16.01	1978ZOa	(63109)3250
Zn++	gl	KNO3	25°C	0.10M	U		K1=10.4	1975DDa	(63110)3251

****

C8H19N3O L CAS 186499-20-7 (9068)

(2-Hydroxyethyl)-1,4,7-triazacyclononane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	C		K1=10.45 *K(ZnL)=-8.87	2003CPa	(63114)3252

****

C8H19N3O L (4430)

1-Oxa-4,7,10-triazacyclododecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=10.43 B(ZnH-1L)=2.75 K(ZnL+OH)=6.14	1991ACa	(63126)3253
Zn++	gl	NaNO3	25°C	0.10M	U		K1=10.53	1988HSb	(63127)3254
Zn++	gl	NaNO3	25°C	0.10M	U		K1=10.53	1986TSa	(63128)3255

****

C8H19O2PS2 HL CAS 2253-44-3 (2060)

O,O'-Dibutyl dithiophosphoric acid; (C4H9O)2P(S)SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	alc/w	?	90%	U		B2=4.80	1971TCa	(63150)3256

Medium: 90% EtOH, 0.3 M NaClO4

****

C8H19O2PS2 HL CAS 2253-52-3 (4584)

O,O-Di-isobutyl phosphorodithioic acid; ((CH3)2.CH.CH2O)2P(S)SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	cal	non-aq	30°C	100%	U	M		1971DGb	(63163)3257
							K(2ZnL2=Zn2L4)=0.85		
							K(ZnL2+py)=3.95		
							K(ZnL2py+py)=0.34		

Medium : benzene

****

C8H19O2PS2 HL CAS 72284-36-7 (3849)

Phosphorodithioic acid S,S'-bis(2-methylpropyl) ester;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	dis	NaCl	25°C	1.0M	U		B2=4.00	1963HZa	(63172)3258

****

C8H19O2PS2 HL CAS 28470-47-5 (3848)

Phosphorodithioic acid S,S'-dibutyl ester;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	dis	NaCl	25°C	1.0M	U		B2=3.81	1963HZa	(63174)3259

****

C8H19PS2 HL CAS 32435-51-5 (4552)

Di-n-butyl phosphinedithioic acid; (C4H9)2PSSH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	alc/w	?	90%	U		B2=6.7	1971TCa	(63204)3260

Medium: 90% EtOH, 0.15 M NaClO4

****

C8H20N2O2 L CAS 82502-45-2 (3239)

N,N'-Di-(2-Hydroxypropyl)ethylenediamine; (CH3.CH(OH).CH2.NH.CH2.)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	oth/un	25°C	0.50M	U		K1=5.12 B2=9.57	1960HDa	(63223)3261

****

C8H20N2O5 L (7389)

1-(2-Aminoethylamino)-1-deoxy-D-galactitol; NH2.(CH2)2.NH.CH2.(CHOH)4.CH2OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

```
Zn++       gl  NaClO4 25°C 0.10M C        K1=5.13   B2=9.91   1997GGa (63233)3262
                                         B3=12.14
                                         B(ZnHL)=11.01
                                         B(Zn2H-2L2)=-2.72
                                         B(Zn2H-3L2)=-11.91
B(ZnH-2L)=-12.06, B(ZnH-1L2)=0.86, B(ZnH-2L2)=-10.25
**************************************************************************
C8H20N2S2             H2L                        (6624)
4,7-Dimethyl-1,10-dithia-4,7-diazadecane; HS.CH2CH2.N(CH3)CH2CH2N(CH3).CH2CH2.SH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.20M C        K1=19.25       1992AHa (63245)3263
                                         K(Zn+2H2L)=14.14
                                         *K(ZnL)=-10.17
**************************************************************************
C8H20N4                 L    Cyclen           CAS 294-90-6  (10)
1,4,7,10-Tetraazacyclododecane; cyclo(-(NH.CH2.CH2.)4-)
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M C    M   K1=15.3        1995KKc (63269)3264
                                         *K(ZnL)=-7.86
                                         K(ZnL+A)=3.3
H2A is 4-nitrophenylphosphoric acid.
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M C        K1=23.5        1995ZEa (63270)3265
                                         *K(ZnL(H2O))=-7.9
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M M T  M                  1994KTa (63271)3266
                                         K(ZnAL+H=ZnBL)=7.86
T:15-35C. K=8.06(15C), 7.64(35C). A:OH. B:H2O
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U T                     1990KSa (63272)3267
                                         *K(ZnL(H2O))=-8.02
At 0 C: *K(ZnL(H2O))=-8.54.
--------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M U        K1=16.2        1988HSb (63273)3268
--------------------------------------------------------------------------
Zn++       cal oth/un 25°C  1.0M U   H                  1978AFa (63274)3269
Medium: 0.1 M NaOH. DH1=-60.6 kJ mol-1
--------------------------------------------------------------------------
Zn++       vlt oth/un 25°C 0.20M U   H    K1=16.2        1977KKa (63275)3270
DH(K1)=-33.0 kJ mol-1
**************************************************************************
C8H20N4                 L                        CAS 6531-38-0  (6515)
1,4-Bis(2-aminoethyl)-1,4-diazacyclohexane; NH2.CH2CH2.N(CH2CH2)2N.CH2CH2.NH2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
```

Zn++ gl NaNO3 25°C 0.10M U K1=5.81 1990HNa (63304)3271
****
C8H20N4 L CAS 127723-03-9 (9174)
1-(2-Aminoethyl)-1,4,7-triazacyclononane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl R4N.X 25°C 0.10M C K1=13.81 2004TBa (63308)3272
K(ZnHL+H)=5.44
K(ZnH2L+H)=4.9
K(ZnL+OH)=3.57
K(ZnL+2OH)=3.30
Medium: 0.1 M N(CH3)4Cl
K(ZnL+H) is not reported. K(ZnL+2OH) is more probably K(ZnLOH+OH)
****
C8H21N3 L (2496)
1,1,1-Tris(N-methylaminomethyl)ethane; CH3.C(CH2.NH.CH3)3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.50M C K1=5.888 1983BMa (63316)3273
K(ZnL+OH)=4.786
K(Zn(OH)L+OH)+4.24
****
C8H22N2O6P2 H4L CAS 13516-59-1 (3850)
2,2'-(Ethylenedi-imino)bis(propylphosphonic acid);

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.10M U K1=13.38 1965DKb (63330)3274
K(Zn+HL)=4.81
****
C8H22N4 L CAS 35513-90-7 (1545)
1,4,9,12-Tetraazadodecane; NH2.(CH2)2.NH.(CH2)4.NH.(CH2)2.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 1.00M C H K1=12.60 1982ABc (63379)3275
By calorimetry: DH1=-48.5 kJ mol-1, DS1=77.8
****
C8H22N4 L CAS 41240-14-6 (4494)
1,5,8,12-Tetraazadodecane; NH2.(CH2)3.NH.(CH2)2.NH.(CH2)3.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.50M U K1=11.26 1973PFa (63398)3276
K(Zn+HL)=7.18
K(ZnL+OH)=4.05
****
C8H22N4O L CAS 80042-24-6 (5464)

1,4,10,13-Tetraaza-7-oxatridecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=10.97	1982BTb (63408)	3277
							K(ZnL+H)=5.57		

****

C8H22N4S L CAS 80042-28-0 (5465)
1,4,10,13-Tetraaza-7-thiatridecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=11.24	1982BTb (63413)	3278

****

C8H23N5 L Tetren CAS 112-57-2 (715)
1,4,7,10,13-Pentaazatridecane (Tetraethylenepentamine);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	cal	KNO3	25°C	0.10M	C			1982TMd (63445)	3279
							DH1=-86.1 kJ/mol		
Zn++	gl	alc/w	25°C	65%	U	I	K1=15.61	1972RBa (63446)	3280

Medium: 40-99% EtOH, 0.1 M NaClO4. K1(40%)=15.72, K1(99%)=19.00

Zn++	cal	KNO3	25°C	0.10M	U	H		1965WHa (63447)	3281

DH(K1)=-58.5 kJ mol-1, DS=100.3 J K-1 mol-1

Zn++	cal	KCl	25°C	0.10M	U	H		1964PVa (63448)	3282

DH(K1)=-57.9 kJ mol-1, DS=94.0 J K-1 mol-1

Zn++	gl	KCl	25°C	0.10M	U		K1=15.10	1963PVa (63449)	3283
							K(Zn+H2L)=5.7		
Zn++	gl	KNO3	25°C	0.10M	U		K1=15.4	1958RHa (63450)	3284

****

C9H4N2F4 L CAS 124005-68-1 (7590)
N-(2,3,5,6-Tetrafluorophenyl)imidazole;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.50M	M		K1=1.70	1998KSa (63500)	3285

****

C9H5NOBr2 HL CAS 521-74-4 (3279)
5,7-Dibromo-8-hydroxyquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	35°C	75%	U		K1=7.81 B2=15.13	1970GMh (63512)	3286

Medium: 75% v/v dioxan, 0.2 M NaClO4

Zn++ dis NaClO4 18°C 0.20M U K1=7.76 B2=15.32 1965NKa (63513)3287
****
C9H5NOCl2 HL CAS 773-76-2 (3278)
5,7-Dichloro-8-hydroxyquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 35°C 75% U K1=7.70 B2=14.86 1970GMh (63537)3288
Medium: 75% v/v dioxan, 0.2 M NaClO4
****
C9H5NOI2 HL CAS 83-73-8 (3280)
5,7-Di-iodo-8-hydroxyquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 35°C 75% U K1=7.80 B2=15.05 1971MAb (63553)3289
Medium: 75% v/v dioxan, 0.1 M NaClO4
****
C9H5NO2Br2 HL CAS 16846-41-1 (4666)
5,7-Dibromo-8-hydroxyquinoline N-oxide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 35°C 75% U K1=8.03 B2=15.56 1970GMh (63579)3290
Medium: 75% v/v dioxan, 0.2 M NaClO4
****
C9H5NO2Cl2 HL CAS 21168-33-2 (4665)
5,7-Dichloro-8-hydroxyquinoline N-oxide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 35°C 75% U K1=7.80 B2=15.27 1970GMh (63589)3291
Medium: 75% dioxan, 0.1 M NaClO4
****
C9H5NO4 HL CAS 22308-86-7 (4607)
3-Nitroso-4-hydroxycoumarin (oximidobenzotetronic acid);

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 21°C 50% U K1=3.93 B2=7.04 1970MGd (63601)3292
Medium: 50% dioxan, 0.3 M NaClO4
****
C9H5N3O5 HL CAS 1084-32-8 (4608)
5,7-Dinitro-8-hydroxyquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 35°C 75% U K1=5.68 B2=10.21 1970GMh (63624)3293
Medium: 75% dioxan, 0.2 M NaClO4

****
C9H5N3O6 HL CAS 21168-36-3 (4609)
5,7-Dinitro-8-hydroxyquinoline-N-oxide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 35°C 75% U K1=3.87 B2=6.69 1970GMh (63634)3294
Medium: 75% v/v dioxan, 0.2 M NaClO4
****
C9H6NOBr HL CAS 1198-14-7 (3281)
5-Bromo-8-hydroxyquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ dis oth/un 25°C 0.10M U B2=14.62 1968CFc (63642)3295
****
C9H6NOCl HL CAS 130-16-5 (1268)
5-Chloro-8-hydroxyquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 60% U K1=9.0 B2=17.85 1973SCd (63654)3296
Medium: 60% dioxan, 0.1 M NaClO4

Zn++ dis oth/un 25°C 0.10M U B2=15.58 1968CFc (63655)3297
****
C9H6NOI HL CAS 15207-63-1 (3282)
5-Iodo-8-hydroxyquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ dis oth/un 25°C 0.10M U B2=14.86 1968CFc (63681)3298
****
C9H6NO4IS H2L Ferron CAS 547-91-1 (275)
7-Iodo-8-hydroxyquinoline-5-sulfonic acid; (HO)(HO3S)C9H4NI

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 75% C K1=11.55 B2=17.68 1989FHa (63752)3299
Medium: 75% v/v dioxane/H2O, 0.10 M KNO3.
Also data for 0-50% v/v dioxane/H2O, 0.10 M KNO3.

Zn++ gl KNO3 25°C 0.10M C K1=9.79 B2=17.69 1985ZHa (63753)3300

Zn++ gl NaClO4 35°C 0.10M U K1=7.05 B2=13.48 1983ABb (63754)3301

Zn++ gl oth/un 20°C 0.03M U K1=6.96 1977KCb (63755)3302
K1=7.58 by solubility

Zn++ gl KCl 25°C 0.10M M I M K1=6.37 B2=12.81 1977MLb (63756)3303

Zn++ EMF oth/un 25°C 0.10M U K1=6.70 B2=13.02 1968KBa (63757)3304
By Ion Exchange: K1=6.78, B2=13.15

Zn++ gl KNO3 28°C 0.10M U K1=7.25 B2=13.40 1967LMb (63758)3305

Zn++ gl NaCl 25°C 0.50M U K1=6.83 B2=12.68 1967TMd (63759)3306
By spectrophotometry: K1=6.87, K2=6.22

Zn++ gl KCl 25°C 0.10M U K1=7.1 B2=13.20 1963STa (63760)3307
****
C9H6N2Br2 L CAS 36107-02-5 (4611)
8-Amino-5,7-dibromoquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp diox/w 25°C 50% U K1=1.8 1972YTa (63844)3308
****
C9H6N2O3 HL CAS 5437-99-0 (3865)
5-Nitro-8-hydroxyquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 60% U K1=7.73 B2=14.42 1973SCd (63855)3309
Medium: 60% dioxan, 0.1 M NaClO4

Zn++ dis oth/un 25°C 0.10M U B2=12.14 1968CFc (63856)3310
****
C9H6N2O5S H2L CAS 5263-74-1 (2738)
7-Nitroso-8-hydroxyquinoline-5-sulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M C K1=4.990 B2=8.835 1978SOb (63875)3311
B3=11.523
****
C9H6N2O6S H2L CAS 15851-63-3 (1433)
7-Nitro-8-hydroxyquinoline-5-sulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 35°C 0.10M U K1=5.98 B2=11.51 1983ABb (63899)3312

Zn++ gl NaClO4 25°C .005M U K1=5.90 B2=10.80 1963FFa (63900)3313
K3 < 3.8

Zn++ gl oth/un 25°C 0.0 U K1=5.96 B2=12.20 1955NUa (63901)3314
****
C9H6N3OClS HL CAS 27004-41-7 (216)
2-(2'-Thiazolylazo)-4-chlorophenol; C3H2NS.N:N.C6H3(Cl).OH

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       sp  diox/w 20°C  10%  U                        1970KIa (63919)3315
                                      K(Zn+HL=ZnL+H)=4.5
                                      K(ZnL+HL=ZnL2+H)=4.4
********************************************************************************
C9H6O4                 HL    Ninhydrin        CAS 485-47-2  (2536)
1,2,3-Indantrione monohydrate, Trioxohydrindene monohydrate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  alc/w  30°C   5%  U    M                   1995RRb (63948)3316
                                      K(ZnA+L)=7.11
                                      B(ZnAL)=14.97
Medium: 5% v/v EtOH/H2O, 0.10 M KNO3. H2A is thioglycolic acid.
********************************************************************************
C9H7N                   L                     CAS 119-65-3  (487)
Isoquinoline;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U                        1994IUa (64018)3317
                                      K(ZnP+L)=5.04
Medium: CHCl3.  ZnP is a zinc porphyrin host.
--------------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U   H                    1990IKa (64019)3318
                                      K(ZnP+L)=4.49
In toluene.  P=pivalamido picket fence porphyrin.  DH=-43.9 kJ mol-1; DS=-
61.9 J K-1 mol-1.  Also data for other picket substituents.
--------------------------------------------------------------------------------
Zn++       ISE NaClO4 30°C 0.10M U        K1=1.08   B2=1.65   1966DKa (64020)3319
                                      B3=2.01
********************************************************************************
C9H7NO                 HL    Oxine            CAS 148-24-3  (504)
8-Hydroxyquinoline (8-quinolinol);
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  50%  U        K1=9.53         1992ELa (64173)3320
Medium: 50% dioxane/H2O (I=0.1 M, electrolyte not stated).
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U    M   K1=11.34  B2=22.44  1990NAa (64174)3321
                                      K(ZnL+furoic acid)=3.89
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C  0.1M U T      K1=9.20   B2=17.08  1986MLb (64175)3322
Also for 60 C K1=8.59; B2=16.22
for 80 C K1=8.20; B2=15.40
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C       U  I     K1=9.75   B2=18.95  1986VZc (64176)3323
```

For 0.313 mol parts of dioxane in H2O;Also in 0.356 m.p.DMSO/H2O K1=9.37;
in 0.334 m.p. DMFA/H2O K1=6.48;B2=13.19

Zn++ gl diox/w 30°C 75% U K1=10.8 B2=21.0 1984NYa (64177)3324

Zn++ gl KNO3 25°C 0.2M U I K1=8.73 1984VZa (64178)3325
in 0.5 M KNO3 K1=8.50;
in 1.0 M KNO3 K1=8.31;

Zn++ sp diox/w 25°C 50% U I K1=9.45 B2=18.15 1978QCa (64179)3326
In water-saturated propylene carbonate K1=10.8, K2=9.7

Zn++ gl diox/w 25°C 60% U K1=9.96 B2=18.98 1973SCd (64180)3327
Medium: 60% dioxan, 0.1 M NaClO4

Zn++ dis non-aq 25°C 100% U M 1968CFc (64181)3328
K(ZnL+py)=3.05
K(ZnL+A)=2.10
K(ZnL+B)=3.40
K(ZnL+C)=1.50
Medium: chloroform. A=2-methylpyridine, B=4-methylpyridine,
C=2,4,6-trimethylpyridine

Zn++ cal diox/w 25°C 50% U H 1968GFa (64182)3329
Medium: 50% dioxan, 0.1 M NaClO4. DH(K1)=-24.7 kJ mol-1, DS=96 J K-1 mol-1;
DH(B2)=-40.1, DS=213

Zn++ gl diox/w 25°C 50% U K1=9.45 B2=18.15 1967SFa (64183)3330

Zn++ dis oth/un 25°C 0.10M U B2=17.1 1965CFa (64184)3331

Zn++ sol oth/un 25°C 0.10M U K1=8.52 B2=15.84 1964FFa (64185)3332
Kso=-23.34

Zn++ gl diox/w 20°C 50% U K1=9.34 B2=17.56 1954IRa (64186)3333
Medium: 50% dioxan, 0.3 M NaClO4

Zn++ gl diox/w 25°C 50% U K1=9.96 B2=18.86 1952JFa (64187)3334

Zn++ sp oth/un 20°C 0.0 U K1=8.56 1952NPa (64188)3335

Zn++ gl diox/w 25°C 70% U K1=10.91 B2=20.81 1949MMa (64189)3336

****

C9H7NO2 HL CAS 10285-97-9 (3257)
2-Hydroxyquinoline 1-oxide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl oth/un 20°C 0.10M U K1=5.4 1956ARb (64385)3337

****

C9H7NO2 HL CAS 1127-45-3 (4614)
8-Hydroxyquinoline-N-oxide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U		K1=7.45	B2=14.90	1970GMb	(64396)3338

Medium: 50% dioxan, 0.3 M NaClO4

****

C9H7NO3S2 H2L CAS 58447-10-2 (4675)
8-Mercaptoquinoline-5-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	sp	oth/un	?	?	U		K1=8.9	B2=17.30	1968ABa	(64421)3339

****

C9H7NO4S H2L Sulfoxine CAS 84-88-8 (448)
8-Hydroxyquinoline-5-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	sp	NaCl	25°C	0.10M	C		K1= 7.572	B2=14.42	1993BCe	(64496)3340
Zn++	gl	NaClO4	35°C	0.10M	U		K1=8.10	B2=15.24	1983ABb	(64497)3341
Zn++	gl	KCl	25°C	0.10M	M	I M	K1=7.73	B2=14.50	1977MLb	(64498)3342
Zn++	gl	diox/w	25°C	60%	U		K1=9.0	B2=17.85	1973SCd	(64499)3343

Medium: 60% dioxan, 0.1 M NaClO4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaCl	20°C	0.50M	U		K1=7.46	B2=14.64	1969SVc	(64500)3344
							K3=5.86			
Zn++	gl	NaClO4	25°C	0.10M	U	IH	K1=7.95	B2=14.97	1968GFa	(64501)3345

By calorimetry:DH(K1)=-21.3 kJ mol-1, DS=79 J K-1 mol-1; DH(B2)=-40.1,DS=151
In 50% dioxan: K1=9.23,B2=17.56; DH(K1)=-21.7,DS=105; DH(B2)=-43.1,DS=192

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaCl	25°C	0.50M	U		K1=7.45	B2=13.95	1967TMd	(64502)3346
Zn++	gl	KNO3	25°C	0.10M	U		K1=7.54	B2=14.32	1959RGa	(64503)3347
Zn++	sp	oth/un	25°C	0.0	U		K1=8.65	B2=16.15	1954NUa	(64504)3348
Zn++	gl	oth/un	20°C	0.01M	U		K1=8.4	B2=15.1	1953ALa	(64505)3349
Zn++	gl	oth/un	25°C	0.01M	U		K1=8.70	B2=15.9	1949MMa	(64506)3350

****

C9H7NS L CAS 3319-59-1 (3866)
2-(2'-Pyridyl)thiophene; C4H3S.C5H4N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

```
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=1.10        1964KSb (64604)3351
********************************************************************************
C9H7NS                 HL                      CAS 76076-35-2  (5695)
2-Mercaptoquinoline;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       EMF non-aq 25°C 100%  U        K1=7.5    B2=13.00  1986UBa (64610)3352
Medium: dimethylformamide, LiClO4
********************************************************************************
C9H7NS                 HL    Quinolinethiol   CAS 491-33-8  (1028)
8-Mercaptoquinoline;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       dis NaClO4 25°C 0.10M C                         1987YSb (64634)3353
Method: extraction from 0.10 M NaClO4 solution into CHCl3/HL.
K(Zn+2HL(org)=ZnL2(org)+2H)=3.83. For extraction into benzene, K=3.21.
--------------------------------------------------------------------------------
Zn++       gl  non-aq 25°C 100%  U        K1=8.1    B2=12.4   1984UBa (64635)3354
Medium: DMF, 0.1 M LiClO4.  Similar data to reference UB83a
--------------------------------------------------------------------------------
Zn++       EMF non-aq 25°C 100%  U        K1=8.1    B2=12.40  1983UBa (64636)3355
Medium: DMF, 0.1 M LiClO4
--------------------------------------------------------------------------------
Zn++       cal diox/w 25°C  50%  U   H                    1968GFa (64637)3356
Medium: 50% dioxan, 0.1 M NaClO4. DH(K1)=-30.1 kJ mol-1, DS=109 J K-1 mol-1
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U        K1=11.0        1966KFb (64638)3357
Medium: 50% dioxan, 0.1 M NaClO4
--------------------------------------------------------------------------------
Zn++       sp  diox/w 27°C  50%  U        K1=11.05       1963CFa (64639)3358
********************************************************************************
C9H7NSe                HL                      CAS 16396-64-8  (3867)
8-Hydroselenylquinoline;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       sp  diox/w 25°C  50%  U        K1=10.2        1965SFa (64655)3359
Medium: 50% dioxan, 0.1 M NaClO4
********************************************************************************
C9H7N3O2               HL                        (1328)
4-Oximino-3-phenyl-2-pyrazolin-5-one;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  alc/w  20°C  50%  U T      K1=3.13   B2=5.54   1981SSc (64661)3360
At 30 C: K1=3.47, B2=5.42
********************************************************************************
```

C9H7N3O2S H2L TAR CAS 2246-46-0 (707)
4-(2'-Thiazolylazo)-resorcinol; C3H2NS.N:N.C6H3(OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	sp	NaNO3	25°C	0.10M	U		K1=7.80		1986OHa	(64684)3361
							K(Zn+HL)=4.28			
Zn++	gl	alc/w	25°C	50%	U				1967NPb	(64685)3362
							K(Zn+2HL)=17.2			
Medium: 50% MeOH, 0.1 M NaClO4										
Zn++	sp	NaClO4	20°C	0.10M	U				1966HSb	(64686)3363
							K(Zn+HL)=7.19			
Zn++	sp	diox/w	20°C	50%	U				1966SCd	(64687)3364
							K(Zn+HL)=11.08			
							K(ZnHL+HL)=10.11			
							K(ZnL+H)=7.12			
							K(ZnOHL+H)=8.74			
Medium: 50% dioxan, 0.1 M NaClO4. K(Zn(OH)2L+H)=8.98										

****

C9H8NO4P H2L CAS 7220-39-5 (1930)
8-Quinolyl-phosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaCl	25°C	0.15M	U		K1=4.87		1989AKa	(64754)3365
							B(ZnH-1L)=-5.46			
							B(ZnHL)=9.69			

****

C9H8N2 L CAS 578-66-5 (503)
8-Aminoquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	sp	diox/w	25°C	50%	U		K1=3.7		1969YOa	(64773)3366
Medium: 50% v/v dioxan, 0.5 M NaClO4										
Zn++	gl	oth/un	25°C	0.10M	U		K1=2.3		1964PCa	(64774)3367
Zn++	gl	KCl	20°C	0.10M	U		K1=2.42		1957WSa	(64775)3368

****

C9H8N2O HL CAS 17056-96-1 (3258)
8-Hydroxy-4-methylcinnoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	20°C	50%	U		K1=7.22	B2=13.69	1954IRa	(64789)3369
Medium: 50% dioxan, 0.3 M NaClO4										

****
C9H8N2O2S HL (8279)
Dehydroxydemethyldesferrithiocin;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C K1=3.8 B2= 7.00 1990ARa (64799)3370
****
C9H8N2O4S2 HL CAS 219931-32-5 (8394)
3-Phenylsulfonamidorhodanine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp alc/w 30°C 20% C T H K1=7.51 B2=12.51 1998EGa (64827)3371
Medium: 20% v/v EtOH/H2O, 0.10 M KCl. Also data for 35 and 45 C.
DH and DS values reported
****
C9H8N4O3S HL ABS CAS 847943-99-1 (9223)
4-Acrylamidobenzenesulfonylazide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 25°C 50% C T H K1=8.61 B2=15.42 2004JEa (64857)3372
Medium: 50% v/v EtOH/H2O, 0.10 M KCl. DH(K1)=-28.7 kJ mol-1, DS(K1)=
-261 J K-1 mol-1; DH(K2)=-28.7, DS(K2)=-227. Also data for 35 and 45 C
****
C9H8N4O4S2 H2L (2879)
Indol-2,3-dione-3-thiosemicarbazone-5-sulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 37°C 0.15M M M K1=5.68 B2=11.31 1982STa (64860)3373
B(ZnL(Gly))=10.2; B(ZnL(His))=11.51
****
C9H8O2S H2L CAS 5740-34-1 (1065)
3-Phenyl-2-mercaptopropenoic acid; C6H5.CH:C(SH).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 50% U K1=11.28 B2=20.85 1977WVa (64877)3374
****
C9H8O4 H3L Caffeic acid CAS 331-39-5 (6037)
3-(3,4-Dihydroxyphenyl)propenoic acid; (HO)2C6H3.CH:CH.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaCl 25°C 0.10M C K1=2.99 1987LVa (64914)3375
B(ZnH-1L)=-3.03
B(ZnH-1L2)=-0.39
B(ZnH-2L2)=-8.21

B(ZnH-2L3)=-5.51
****
C9H8O4 H2L CAS 97652-17-0 (3855)
3-Carboxy-4-methyltropolone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp NaClO4 ? 0.20M U K1=6.52 1967GDb (64928)3376
By glass electrode: K1=6.68,K2=5.44,K3=3.24
****
C9H8O4 H2L CAS 4316-23-8 (4593)
4-Methylphthalic acid; CH3.C6H3(COOH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl oth/un 25°C 0.04M U K1=3.05 1971NPc (64967)3377
****
C9H8O4S H2L CAS 135-13-7 (4620)
(2-Carboxyphenylthio)ethanoic acid; HOOC.C6H4.S.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl oth/un 25°C 0.10M U K1=1.8 1962SYa (65000)3378
****
C9H8O5 H2L CAS 635-53-0 (3246)
2-(Carboxymethoxy)benzoic acid; HOOC.CH2.O.C6H4.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl oth/un 25°C 0.10M U K1=2.6 1962SYa (65016)3379

Zn++ gl diox/w 35°C 50% U K1=6.8 1958YSa (65017)3380
****
C9H9NO3 HL Hippuric acid CAS 495-69-2 (1184)
Benzoylaminoethanoic acid, N-benzoylglycine; C6H5.CO.NH.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ ISE NaClO4 20°C 3.0M U K1=2.54 B2=2.95 1967KAa (65052)3381
B3=3.26
****
C9H9NO3 H2L CAS 6343-78-8 (4624)
N-(Salicylidene)glycine; HO.C6H4.CH:N.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.50M U K1=9.37 B2=15.77 1971LLa (65060)3382
****
C9H9NO3I2 H2L Iodogorgoic acd CAS 300-39-0 (2726)
2-Amino-3-(3,5-diiodo-4-hydroxyphenyl)propanoic acid, Diiodotyrosine;

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C .002M U        B2=8.0         1953PEa (65069)3383
Medium: 0.002 ZnSO4
********************************************************************************
C9H9NO4                HL                      CAS 55805-95-3  (6322)
2-Hydroxy-5-nitropropiophenone; (HO)(NO2)C6H3.CO.CH2.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       sp  diox/w 40°C  50%  U        K1=3.28        1975PSb (65075)3384
********************************************************************************
C9H9NO4               H2L    Salicylglycine   CAS 487-54-7  (3869)
N-(2-Hydroxybenzoyl)glycine, 2-hydroxyhippuric acid; HO.C6H4.CO.NH.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C        K1=3.1         1994BDa (65091)3385
                                          B(ZnH-1L)=-5.2
--------------------------------------------------------------------------------
Zn++       gl  alc/w  25°C  50%  U        K1=4.12   B2= 7.98  1989MSi (65092)3386
                                          B(ZnH-1L)=-5.33
                                          K(Zn+OH+L)=8.67
Medium: 50% v/v EtOH/H2O, 0.2 M NaNO3.
********************************************************************************
C9H9NO4               H2L                      CAS 612-42-0  (3263)
N-(Carboxymethyl)anthranilic acid; HOOC.C6H4.NH.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=3.05        1973UWb (65103)3387
--------------------------------------------------------------------------------
Zn++       gl  diox/w 35°C  50%  U        K1=5.6    B2=8.4    1958YSa (65104)3388
********************************************************************************
C9H9N3O2S2             HL    Sulfathiazole    CAS 72-14-0  (8357)
4-Amino-N-2-thiazolyl-benzenesulfonamide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  alc/w  25°C  50%  C        K1=3.65        1999GAa (65126)3389
Medium: 50% EtOH/H2O, 0.10 M NaNO3.
--------------------------------------------------------------------------------
Zn++       gl  alc/w  30°C  50%  C    M                  1999MBc (65127)3390
                                          B(Zn(gly)L)=10.26
                                          B(ZnAL)=9.89
                                          B(Zn(met)L)=9.01
                                          B(ZnH-1(gly)L)=2.26
In 50% v/v EtOH/H2O, 0.10 M NaNO3. B(ZnH-2(gly)L)=-6.74; B(ZnH-1AL)=2.65,
B(ZnH-2AL)=-5.49; B(ZnH-1(met)L)=1.42, B(ZnH-2(met)L)=-6.57. A: Beta-ala
```

```
--------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  50%  U        K1=3.60   B2= 6.53  1993MBc (65128)3391
                                         *K(ZnL)=-8.00
                                         *K(ZnL2)=-5.99
                                         *K(Zn(OH)L2)=-9.00
Medium: 50% v/v dioxane/H2O, 0.10 M NaNO3.
********************************************************************************
C9H10N2                 L                      CAS 582-60-5  (8433)
5,6-Dimethylbenzimidazole;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M C    M   K1=2.60        1997PSb (65193)3392
                                         K(ZnL+A)=7.69
H2A is thiamine orthophosphoric acid.
********************************************************************************
C9H10N2O               HL                       (3264)
2,2'-Hydroxyphenylimidazoline;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C 0.01M U        K1=7.9         1956ARb (65200)3393
********************************************************************************
C9H10N2O2              HL                       CAS 52829-64-8  (4627)
2-Acetoacetamidopyridine; C5H4N.NH.CO.CH2.CO.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=4.30        1967HAb (65224)3394
********************************************************************************
C9H10N2O2              HL                       (3265)
Salicylaldehyde acetylhydrazone; HO.C6H4.CH:N.NH.CO.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       sp  alc/w  19°C  50%  U  I                    1963HOc (65234)3395
                                         K(?)=4.2
                                         K(?)=6.32
Medium: EtOH, 0.025 M acetate buffer. 28% EtOH: K(?)=4.0
--------------------------------------------------------------------------------
Zn++       gl  alc/w  20°C  50%  U        K1=7.3    B2=13.2   1959HOa (65235)3396
********************************************************************************
C9H10N2O3              HL                       CAS 61-78-9  (8235)
4-Aminohippuric acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       vlt KNO3   35°C  1.0M C T H    K1=4.398  B2= 8.86  1980SSg (65249)3397
Method: polarography. At 20 C, K1=4.513, B2=8.891.
DH(K1)=-13.1 kJ mol-1, DS(B2)=-41.6.
```

****
C9H10N2O3 HL CAS 62134-49-0 (9110)
N-(2-Pyridyl)-3-carboxypropanamide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M U K1=3.33 B2= 5.36 2002GSa (65258)3398
****
C9H10N2O5 H3L (4645)
4,5,6,7-Tetrahydroindazol-3-one-5,5-dicarboxylic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 50% U 1969ZSa (65271)3399
K(Zn+H2L)=2.63
K(Zn+HL)=5.76
****
C9H10N2O5 H2L CAS 130291-86-0 (8051)
N-(2-Hydroxy-4-nitrobenzyl)glycine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M U K1=7.51 B2=12.88 1983CHb (65284)3400
****
C9H10N2S L CAS 14610-11-8 (8494)
2-Mercaptoethylbenzimidazole;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 30°C 0.10M M M 1995RMa (65291)3401
K(Zn(bpy)+L)=8.24
K(Zn(phen)+L)=8.14
K(ZnA+L)=8.02
A is 1,2-diaminobenzene.

Zn++ gl NaClO4 30°C 0.10M M K1=9.16 1995RMa (65292)3402
****
C9H10N4O2 HL (6976)
3,3-(Bis(imidazol-2-yl))propanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.20M C K1=5.63 B2=10.10 1994VSa (65299)3403
Also data for the propanamide derivatives with the peptide Ile-His-Gly-OEt
****
C9H10N6B HL CAS 18583-60-3 (7936)
Hydrotris(pyrazolyl)borate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---

Zn++ dis non-aq 25°C 100% C 2001KSb (65307)3404
K(Zn+2HL=ZnL2(org)+2H)=6.2
Method: solvent extraction into chloroform.
K: Zn+2HL(org)=ZnL2(org)+2H.
****
C9H10O2 HL Benzylacetic CAS 501-52-0 (1362)
3-Phenylpropanoic acid; C6H5.CH2.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C I M K1=1.14 1985BSd (65361)3405
K(Zn(phen)+L)=1.07
In 50% dioxan: K1=2.36, K(Zn(phen)+L)=2.39. In 50% EtOH: K1=1.88, K=2.06

Zn++ gl KNO3 25°C 0.10M C I M K1=1.14 1985SMf (65362)3406
K(Zn(phen)+L)=1.07
Also data in 30, 50, 60, 70, and 90% (v/v) Ethanol/water and 10, 30, 50, 60, 70, 80, and 90% (v/v) dioxane/water.
****
C9H10O2S HL CAS 103-46-8 (3266)
(Benzylthio)ethanoic acid; C6H5.CH2.S.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 50% U M K1=2.19 1972SGa (65398)3407
K(Zn(bpy)+L)=2.16
Medium: 50% dioxan, 0.1 M NaClO4
****
C9H10O2S HL CAS 21101-79-1 (3267)
2-Ethylthiobenzoic acid; CH3.CH2.S.C6H4.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 50% U K1=2.87 B2=6.39 1956IFa (65404)3408
****
C9H10O3 HL CAS 1878-49-5 (5593)
2-(4-Methoxyphenyl)ethanoic acid; CH3O.C6H4.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 50% C M K1=2.28 1985BSd (65435)3409
K(Zn(phen)+L)=2.35
Medium: 50% v/v dioxan/H2O, 0.1 M NaClO4
****
C9H10O3 HL CAS 940-31-8 (8124)
2-Phenoxypropanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl none 25°C 0.15M C T H K1=0.6 1990AMb (65455)3410

Data for 10-45 C

****

C9H10O3 HL CAS 118-61-6 (3858)

Salicylic acid ethyl ester; HO.C6H4.CO.OC2H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=8.48		1964JVa	(65491)3411

Medium: 75% dioxan, 0.1 M NaClO4

****

C9H10O3S HL CAS 18619-21-2 (4637)

(2-Methoxyphenylthio)ethanoic acid; CH3O.C6H4.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	ISE	KNO3	25°C	0.10M	C		K1=1.00		1972FGb	(65496)3412

By competition with Ag+ using Ag ISE

****

C9H10O3S HL CAS 3996-32-5 (4638)

(3-Methoxyphenylthio)ethanoic acid; CH3O.C6H4.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	ISE	KNO3	25°C	0.10M	C		K1=0.68		1972FGb	(65504)3413

By competition with Ag+ using Ag ISE

****

C9H10O3S HL CAS 3996-42-7 (4643)

Carboxymethyl benzyl sulfoxide; C6H5.CH2.SO.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U	M	K1=1.84		1972SGa	(65515)3414
							K(Zn(bpy)+L)=1.80			

Medium: 50% dioxan, 0.1 M NaClO4

****

C9H10O3Se HL (4640)

(2-Methoxyphenylseleno)ethanoic acid; CH3O.C6H4.Se.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	ISE	KNO3	25°C	0.10M	C		K1=0.71		1972FGb	(65518)3415

By competition with Ag+ using Ag ISE

****

C9H10O4 H3L CAS 39223-40-0 (1825)

3,4-Dihydroxyphenylpropanoic acid; (HO)2.C6H3.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	30°C	0.10M	U		K1=8.64	B2=14.79	1966APb	(65561)3416

****

C9H10O4S HL CAS 3937-96-0 (4644)
Carboxymethyl benzyl sulfone; C6H5.CH2.SO2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U	M	K1=1.73		1972SGa	(65598)3417
							K(Zn(bpy)+L)=1.75			

Medium: 50% dioxan, 0.1 M NaClO4

****

C9H10O8 H4L CAS 3724-52-5 (1264)
cis-1,2,3,4-Cyclopentanetetracarboxylic acid; C5H6.(COOH)4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	30°C	0.19M	U		K1=5.86	B2=9.66	1985MSb	(65634)3418

****

C9H11N L CAS 2294-75-9 (301)
2-(But-3-enyl)pyridine;C5H4N.CH2.CH2.CH:CH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=1.4		1974ILa	(65658)3419

****

C9H11NO HL CAS 10229-63-7 (3872)
N-(Salicylidene)aminoethane; HO.C6H4.CH:N.CH2.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	25°C	0.50M	U		K1=6.73	B2=12.8	1971LLa	(65667)3420

****

C9H11NOS HL CAS 34282-30-9 (3287)
N-(Mercaptoacetyl)-4-methylanilide; CH3.C6H4.NH.CO.CH2.SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=10.33	B2=19.49	1961MAe	(65674)3421

****

C9H11NOS HL CAS 36076-50-3 (4680)
N-Phenyl-N-methyl-2-mercaptoacetamide; HS.CH2.CO.N(CH3).C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	oth	diox/w	30°C	70%	U		K1=8.32	B2=16.17	1973BSc	(65679)3422

****

C9H11NO2 HL Phenylalanine CAS 63-91-2 (2)
2-Amino-3-phenylpropanoic acid; H2N.CH(CH2.C6H5)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	C	M	K1=4.63	B2= 8.24	2000ZLa	(65870)3423

```
                                        B(ZnLA)=10.91
A=12-Pentyl-1,4,7,10-tetraazacyclotridecane-11,13-dione.
-------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M C    M   K1=4.64        1999DSb (65871)3424
                                        B(ZnAL)=4.78
A is thiamine hydrochloride.
-------------------------------------------------------------------------------
Zn++       vlt NaClO4 25°C  1.0M C    M                  1999VKc (65872)3425
                                        B(ZnLA)=5.36
                                        B(ZnLA2)=8.60
Method: polarography. Medium pH: 8.5. A is 4-picoline.
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.20M U    M   K1=4.70   B2= 8.42  1997PJa (65873)3426
                                        K(Zn(bpy)+L)=4.09
                                        K(Zn(phen)+L)=4.39
                                        K(ZnA+L)=4.14
                                        K(Zn(his)+L)=3.81
A is 2,2'-bipyridylamine. K(Zn(ida)+L)=3.66.
-------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M C    M   K1=4.64        1997PSb (65874)3427
                                        K(ZnL+A)=4.20
H2A is thiamine orthophosphoric acid.
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.20M M        K1=4.78        1996VBa (65875)3428
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C  1.0M U    M   K1=4.55   B2= 7.86  1995KDa (65876)3429
                                        K3=2.22
                                        B(ZnLA)=6.66
                                        B(ZnLA2)=9.32
                                        B(ZnL2A)=10.70
Medium pH 8.50. HA is propanoic acid.
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.20M M        K1=4.785  B2= 9.26  1994VBb (65877)3430
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.20M M        K1=4.785  B2= 9.26  1994VBc (65878)3431
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.20M U T  M   K1=4.70   B2= 8.42  1993PPa (65879)3432
                                        K(ZnA+L)=4.45
A is 2,2'-bipyridylamine. Also data for 35 and 45 C.
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.20M U    M   K1=4.74   B2=9.21   1992VBa (65880)3433
                                        B(ZnL(Trp))=9.98
                                        B(ZnL(Tyr))=9.75
-------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M U        K1=4.42        1990RSe (65881)3434
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M                  1989MAd (65882)3435
                                        K(ZnA+L)=4.11
                                        B(ZnAL)=10.96
H2A is N-(2-acetamido)imino diethanoic acid.
```

Zn++ gl KNO3 35°C 0.20M U M K1=4.61 B2=8.27 1989RVa (65883)3436
K(ZnA+L)=4.39
A=bis(imidazol-2-yl)methane

Zn++ gl KNO3 25°C 0.10M U K1=4.57 1985MKa (65884)3437

Zn++ gl KNO3 25°C 0.10M C HM K1=4.38 B2= 8.25 1984ACd (65885)3438
B(Zn(atp)L)=9.7
By calorimetry: DH(K1)=-5.0 kJ mol-1, DS(K1)=67 J K-1 mol-1; DH(B2)=-9.2
DS(B2)=130. DH(Zn(atp)L)=-21, DS(Zn(atp)L)=117.

Zn++ gl NaClO4 37°C 0.15M C M K1=4.208 B2=8.165 1981ABb (65886)3439
B(ZnL(His))=10.209; B(ZnL(Cys))=13.110

Zn++ gl KNO3 30°C 0.10M M M K1=4.30 B2= 8.23 1978MSi (65887)3440
K(Zn(his)+L)=3.69
B(Zn(his)L)=10.36

Zn++ gl KNO3 20°C 0.37M U T K1=4.42 B2=8.5 1966SWa (65888)3441

Zn++ gl oth/un 20°C .005M U B2=8.4 1953PEa (65889)3442
Medium: 0.005 ZnSO4
****
C9H11NO2 HL B-Phenylalanine CAS 614-19-7 (187)
3-Amino-3-phenyl-propanoic acid; H2N.CH(C6H5).CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.20M U M K1=4.57 1988BSc (66004)3443
K(Zn(bpy)+L)=4.21
****
C9H11NO2 HL (4648)
3-Methyl-2-hydroxyacetophenone oxime; (CH3)(HO).C6H3.C(:N.OH).CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 40°C 75% U K1=7.98 1973PPa (66018)3444
****
C9H11NO2 HL (4649)
4-Methyl-2-hydroxyacetophenone oxime; (CH3)(HO).C6H3.C(:N.OH).CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 40°C 75% U K1=7.86 1973PPa (66022)3445
****
C9H11NO2 HL (4650)
5-Methyl-2-hydroxyacetophenone oxime; (CH3)(HO).C6H3.C(:N.OH).CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

```
--------------------------------------------------------------------------------
Zn++       gl  diox/w 40°C  75%  U        K1=7.83        1973PPa (66026)3446
********************************************************************************
C9H11NO2               HL    N-Tolylglycine   CAS 21911-67-1  (627)
N-(3-Methylphenyl)aminoethanoic acid; CH3.C6H4.NH.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U    M                    1983CLc (66037)3447
                                        K(Zn(bpy)+L)=3.40
********************************************************************************
C9H11NO2               HL                      CAS 21911-69-3  (634)
N-(4-Methylphenyl)aminoethanoic acid; CH3.C6H4.NH.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U    M                    1984CMa (66044)3448
                                        K(Zn(phen)+L)=3.94
********************************************************************************
C9H11NO3               HL                        (6512)
2-Amino-2-(4'-methoxyphenyl)ethanoic acid; NH2.CH(C6H4OCH3)COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M M        K1=4.08   B2=7.68   1990SMa (66054)3449
********************************************************************************
C9H11NO3             H2L    o-Tyrosine       CAS 7432-92-9  (735)
2-Amino-3-(2-hydroxyphenyl)propanoic acid; HO.C6H4.CH2.CH(NH2).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M U   H    K1=6.49   B2=11.78  1984KGa (66062)3450
                                        B(ZnHL)=14.59
                                        B(ZnH2L2)=29.99
                                        B(ZnHL2)=21.33
DH(ZnHL)=-32.2 kJ mol-1;DH(ZnH2L2)=-64.2;DH(ZnHL2)=-21;DH(ZnL2)=12;DH(ZnL)=2
********************************************************************************
C9H11NO3             H2L    m-Tyrosine       CAS 587-33-7  (736)
2-Amino-3-(3-hydroxyphenyl)propanoic acid; HO.C6H4.CH2.CH(NH2).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M U   H    K1=5.76   B2=9.75   1984KGa (66073)3451
                                        B(ZnHL)=14.10
                                        B(ZnH2L2)=28.11
                                        B(ZnHL2)=19.11
DH(ZnHL)=-30.7;DH(ZnH2L2)=-64.6;DH(ZnHL2)=-35;DH(ZnL2)=3;DH(ZnL)=7 kJ mol-1
********************************************************************************
C9H11NO3             H2L    Tyrosine         CAS 60-18-4  (4)
2-Amino-3-(4-hydroxyphenyl)propanoic acid; HO.C6H4.CH2.CH(NH2).COOH
```

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	NaClO4	25°C	1.0M	C	M	K(Zn+HL)=4.15 K(Zn+2HL)=8.28 K(Zn+3HL)=11.00 K(Zn+HL+A)=4.30	1997KKb (66176)	3452
Method: polarography. K(Zn+HL+2A)=8.45, K(Zn+2HL+A)=11.30. HA is pyridoxine (vitamin B6). Medium pH 8.50.									
Zn++	gl	KNO3	35°C	0.10M	C	M	K(Zn+HL)=4.60 K(ZnHL+A)=4.30	1997PSb (66177)	3453
H2A is thiamine orthophosphoric acid.									
Zn++	gl	NaClO4	25°C	0.20M	M		K1=4.63	1996VBa (66178)	3454
Zn++	gl	NaClO4	25°C	0.20M	M		K1=4.634 B2= 9.01	1994VBb (66179)	3455
Zn++	gl	NaClO4	25°C	0.20M	M		K(Zn+HL)=4.634 K(Zn+2HL)=9.010	1994VBc (66180)	3456
Zn++	gl	NaClO4	25°C	0.20M	U	M	K1=4.70 B2=9.00 B(ZnL(Trp))=10.36 B(ZnL(Phe))=9.98	1992VBa (66181)	3457
Zn++	ISE	KNO3	25°C	0.10M	U		K1=6.66 B2=9.70	1985DVa (66182)	3458
Zn++	gl	KNO3	25°C	0.10M	C	HM	K(Zn+HL)=4.21 K(Zn+2HL)=8.3 *K(Zn(HL)2)=-8.9 K(Zn+atp+HL)=9.26	1984ACd (66183)	3459
By calorimetry: DH(Zn+HL)=-9.2 kJ mol-1, DS=50 J K-1 mol-1; DH(Zn+2HL)=-20 DS=92; DH(*K)=34, DS(*K)=59; DH(Zn+atp+HL)=1.7, DS=184.									
Zn++	gl	KCl	25°C	0.20M	U	H	K1=6.08 B2=9.97 B(ZnHL)=14.22 B(ZnH2L2)=28.15 B(ZnHL2)=19.26	1984KGa (66184)	3460
DH(ZnHL)=-31.4 kJ mol-1;DH(ZnH2L2)=-67.0;DH(ZnHL2)=-36;DH(ZnL2)=4									
Zn++	gl	KCl	25°C	0.10M	C	TIH R	K(Zn+HL)=4.2 K(Zn+2HL)=8.2	1984PEa (66185)	3461
IUPAC evaluation									
Zn++	gl	KCl	25°C	0.10M	U	M		1983MDc (66186)	3462

```
                                        K(Zn+HL)=4.06
                                        K(Zn+2HL)=8.27
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C   H  T K1=6.2    B2=10.11  1982PSa (66187)3463
                                        B(ZnHL)=14.37
                                        B(ZnHL2)=19.65
                                        B(ZnH2L2)=28.59
DH(K1)=6 kJ mol-1
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  20°C 0.37M U      T                 1971WSa (66188)3464
                                        K(Zn+HL)=4.19
                                        K(Zn+2HL)=8.26
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C .002M U        B2=7.9         1953PEa (66189)3465
Medium: 0.002 ZnSO4
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C 0.01M U                       1952ALa (66190)3466
                                        K(Zn+2HL)=9.1
********************************************************************************
C9H11NO3               HL    Phenylserine     CAS 2180-37-2  (2546)
2-Amino-3-hydroxy-3-phenylpropanoic acid; C6H5.CH(OH).CH(NH2)COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  oth/un 17°C .005M U        B2=8.5         1953PEa (66256)3467
Medium: 0.005 ZnSO4
********************************************************************************
C9H11NO3               HL                    CAS 78547-13-4  (1897)
2-Aminooxy-3-phenyl-propanoic acid; C6H5.CH2.CH(O.NH2).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=1.47        1985WTa (66263)3468
********************************************************************************
C9H11NO3               HL    Peonoloxime        (6250)
2-Hydroxy-4-methoxyacetophenoneoxime; CH3O.C6H3(OH).C(:NOH).CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 28°C  50%  U        K1=6.68   B2=12.65  1979BRb (66269)3469
********************************************************************************
C9H11NO3               HL                    CAS 85676-52-4  (628)
N-(3-Methoxyphenyl)aminoethanoic acid; CH3O.C6H4.NH.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U    M                 1983CLc (66281)3470
                                        K(Zn(bpy)+L)=3.23
********************************************************************************
C9H11NO3               HL                    CAS 22094-69-5  (633)
```

N-(4-Methoxyphenyl)aminoethanoic acid; CH3O.C6H4.NH.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	U	M	K(Zn(phen)+L)=4.30	1984CMa (66288)	3471
Zn++	gl	NaClO4	25°C	0.10M	U		K1=3.58	1979CXa (66289)	3472

****

C9H11NO4 H3L DOPA CAS 59-92-7 (5)
2-Amino-3-(3,4-dihydroxyphenyl)propanoic acid;H2NCH(CH2C6H3(OH)2)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	37°C	0.15M	U	M	K1=12.37 B(ZnH2L)=26.07 B(ZnLCu)=21.45	1995NAc (66370)	3473
Zn++	gl	KCl	25°C	0.20M	C	M	K(Zn(His)+L)=5.71 B(ZnH2L(His))=32.71 K(Zn(ATP)+L)=4.91 B(ZnH2L(ATP))=27.23	1984KDb (66371)	3474
Zn++	gl	KNO3	25°C	0.10M	C	M	B2=11.07 B(ZnHL)=13.77 B(Zn2L2)=16.55 B(CuZnH-1L)=7.98 B(CuZnH-2L)=1.13	1983DAa (66372)	3475
Zn++	sp	KCl	25°C	0.20M	C		K(ZnL2+H)=10.44 K(ZnHL2+H)=9.65 K(ZnH2L2+H)=8.59	1983KGa (66373)	3476

Microconstants also reported.

Zn++	gl	KCl	25°C	0.20M	C	M	B2=18.50 B(ZnH2L)=27.00 B(ZnHL)=20.23 B(ZnH3L2)=47.18 B(ZnH2L2)=38.59 B(ZnHL2)=28.92	1979GKa (66374)	3477
Zn++	gl	NaCl	25°C	0.12M	U	M	K(Zn+bpy)=5.76 K(Zn(bpy)+L)=11.13 K(Zn+A)=2.47 K(ZnA+L)=12.46	1978RMa (66375)	3478

H2A=tartaric acid; additional data for other ternary ligands

```
Zn++       gl  NaCl   25°C 0.12M U    M   K1=11.03       1978RMc (66376)3479
                                           K(Zn(ATP)+L)=7.30
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.50M U                       1977BPc (66377)3480
                                           B(ZnH2L)=26.56
                                           B(ZnH4L2)=52.67
                                           B(ZnH6L3)=78.53
                                           B(ZnH5L3)=70.20
B(ZnH4L3)=61.10, B(ZnH3L3)=51.90, B(ZnH2L3)=42.00, B(ZnHL3)=31.80,
B3=21.70.
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  20°C 0.50M U                       1974GSa (66378)3481
                                           K(Zn+H2L)=4.4
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C  1.0M U        K1=9.94   B2=18.06  1972GJa (66379)3482
-------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C .005M U        K1=8.7         1953PEa (66380)3483
Medium: 0.005 ZnSO4
*******************************************************************************
C9H11NO4S             H2L                     CAS 1080-44-0  (4682)
N-(4-Toluenesulfonyl)glycine, N-tosylglycine; CH3.C6H4.SO2.NH.CH2.COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       vlt NaClO4 25°C 0.10M U    M                   1991GBb (66413)3484
                                           B(Zn(bpy)L)=8.82
                                           K(Zn+bpy+H-1L)=11.86
                                           K(Zn(bpy)+L)=3.52
                                           K(Zn(bpy)+H-1L)=6.56
-------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  45%  U        K1=12.00       1984MYa (66414)3485
                                           K(Zn+2HL)=8.12
                                           K(Zn+HL+L)=10.25
-------------------------------------------------------------------------------
Zn++       vlt oth/un 25°C 0.10M U        B2=6.36        1968RFa (66415)3486
-------------------------------------------------------------------------------
Zn++       ISE NaClO4 20°C  3.0M U        K1=2.26   B2=2.81   1967KAa (66416)3487
                                           B3=2.88
*******************************************************************************
C9H11NO4S2            H3L                     CAS 97512-83-9  (1330)
N-Benzenesulfonyl-L-cysteine;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  alc/w  25°C  50%  C    M                   1997MGb (66437)3488
                                           B(Zn+HL)=8.96
                                           B(Zn(en)(HL))=14.08
                                           B(Zn(gly)(HL))=13.94
                                           *K(Zn(bpy)(HL))=-8.52
Medium: 50% v/v EtOH/H2O, 0.2 M NaNO3. *K(Zn(en)HL)=-8.70, *K(Zn(gly)HL)=-
```

8.80, *K(ZnLbpy)=-9.60, *K(ZnLen)=-9.80, *K(ZnLgly)=-9.90.

Zn++	gl	diox/w	30°C	50%	M			1980MDc	(66438)3489

K(Zn+HL)=8.33
K(ZnHL+HL)=7.22
*K(ZnH2L2)=-8.20
*K(ZnHL2)=-10.30

Medium: 50% v/v dioxane/H2O, 0.50 M NaClO4.

Zn++	gl	NaClO4	21°C	0.50M	U	T	H	1974GMd	(66439)3490

K(Zn+HL)=8.42
-

At 32 C: K(Zn+HL)=8.15, K(ZnHL+HL)=7.34. Also DH and DS values

****

C9H11NO5S H2L CAS 85828-29-1 (8747)
N-(Phenylsulfonyl)-L-serine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	alc/w	25°C	50%	C	T	H	1987MDe	(66456)3491

K(Zn+HL=ZnL+H)=3.70
K(Zn+2HL=ZnL2+2H)=8.56
*K(ZnL2)=-10.84
*K(ZnH-1L2)=-10.90

Medium: 50% v/v EtOH/H2O, 0.2 M NaNO3. Data for 35, 45 C.
Enthalpy and entropy data.

****

C9H11N3O2 H2L CAS 36408-72-7 (7572)
2,6-Diacetylpyridine dioxime; C5H3N(C(=NOH)CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	kin	alc/w	25°C	24%	U			1998YGa	(66478)3492

*K(ZnH2L) <-6.0
K1eff=4.61 (pH=7)
K(2ZnL=Zn2L2)eff=3.30 (pH=7)

Medium: 24% v/v EtOH/H20, 4% MeCN, 0.1 M NaCl.

****

C9H11N3O2S HL (1273)
1-Ethoxycarbonyl-3-pyridin-2-ylthiourea; C5H4N.NH.CS.NH.CO.OC2H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	alc/w	25°C	75%	U		K1=6.23 B2=12.23	1980SMb	(66494)3493

****

C9H11N3O2S HL CAS 51146-75-9 (6170)
N-(2-Hydroxy-3-methoxybenzylidene)thiosemicarbazide; CH3O(OH)C6H3.CH:N.CS.NH.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

Zn++ gl diox/w 35°C 50% U I K1=7.28 B2=13.56 1993GJa (66501)3494
Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4.
Also data for 50% dioxane/H2O, 0.0200.2 M NaClO4. At I=0, K1=7.78.
****
C9H12N2O2 HL CAS 19254-08-1 (5893)
2-Amino-N-hydroxy-3-phenylpropanamide, phenylalanine hydroxamic acid;
C6H5.CH2.CH(NH2).CO.NHOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.20M C K1=4.84 B2=9.5 1991FKa (66578)3495
B(ZnHL)=11.69
****
C9H12N2O2 HL CAS 66315-20-6 (3272)
N-2'-Aminoethylanthranilic acid; HOOC.C6H4.NH.CH2.CH2.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 35°C 50% U K1=5.4 B2=9.8 1958YSa (66586)3496
****
C9H12N2O2 HL CAS 80028-35-9 (2762)
beta-(6-Methyl-2-pyridyl)-alpha-alanine; CH3.C5H3N.CH2.CH(NH2).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M M K1=4.22 B2=8.21 1976RNa (66597)3497
B2=8.67 (racemic ligand)
****
C9H12N2O3 H3L Tyr hydroxamic CAS 51344-01-5 (864)
2-Amino-N-hydroxy-3-(4-hydroxyphenyl)propanamide; HO.C6H4.CH2.CH(NH2)CO.NHOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.20M C 1991FKa (66605)3498
B(ZnH2L)=20.8
B(ZnHL)=14.28
B(ZnH2L2)=29.2
****
C9H12N2O4 HL (2310)
2-Amino-3-(3-methoxy-4-oxo-1,4-dihydropyridin-1-yl)propanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 37°C 0.15M C K1=3.39 B2=6.07 1979SPd (66612)3499
K(ZnL=ZnL(OH)+H)=-8.4
K3=1.9
****
C9H12N2O4 H3L (6664)
3,4-Dihydroxyphenylalanine hydroxamic acid, DOPA hydroxamic acid;
H2N.CH(CH2.C6H3(OH)2CO.NHOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C				1991FKa (66619)	3500
							B(ZnH2L)=21.19			
							B(ZnHL)=14.90			
							B(ZnH2L2)=28.9			

C9H12N2O4S H2L (7330)
2-Aminothiazole-N,N-dipropanoic acid; (C3H2NS)N(CH2.CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.15M	U		K1=2.74		1997NGa (66623)	3501

C9H12N2O6 HL Uridine CAS 58-96-8 (828)
Uracil-1-beta-D-ribofuranoside;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U	T HM			1995RSb (66674)	3502
							B(Zn(ala)L)=9.62			
							B(Zn(phe)L)=9.10			
							B(Zn(trp)L)=9.55			

Data for 35 and 45 C. DH(Zn(ala)L)=-19.0 kJ mol-1, DS(Zn(ala)L)=120 J K-1 mol-1; DH(Zn(phe)L)=-20.0, DS(Zn(phe)L)=107; DH(Zn(trp)L)=-20.9, DS=113.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	M	M			1994SIa (66675)	3503
							K(ZnA+L)=6.9			

A:1-(9-Acridine)-1,4,7,10-tetraazacyclododecane

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	M	M			1993SKe (66676)	3504
							K(ZnA+HL)=5.2			

A:1,4,7,10-Tetraazacyclododecane.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaNO3	37°C	0.15M	U		K1=2.39		1990CIa (66677)	3505
							B(ZnH-1L)=-4.79			

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	35°C	0.10M	U	M	K1=4.69		1990RSc (66678)	3506
							K(ZnA+L)=3.58			
							K(ZnB+L)=2.91			
							K(ZnC+L)=2.24			

H2A=Iminodiethanoic acid, H3B=NTA, H4C=EDTA

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	35°C	0.10M	U	M	K1=2.35		1990RSc (66679)	3507
							K(ZnL+Ala)=2.08			
							K(ZnL+Phe)=2.05			
							K(ZnL+Trp)=2.04			

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C	T HM	K1=3.67	B2=6.86	1987KRa (66680)	3508

Zn++ gl KNO3 35°C 0.10M U M K1=4.75 1986RRa (66681)3509
Ternary complexes with glycine, oxalate and histidine
****
C9H12N2O10 H5L CAS 80921-06-8 (2924)
2,3-Diaminopropanoic-N,N'-di-1,3-propanedioic acid;
(HOOC)2CH.NH.CH(COOH).CH2.NH.CH(COOH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ EMF KNO3 25°C 0.10M U K1=11.78 1982KBb (66726)3510
****
C9H12N4O L CAS 78105-09-6 (8186)
9-(1-Ethoxyethyl)purine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ kin oth/un 40°C 0.20M C K1=0.27 1980LOa (66755)3511
Medium: 0.20 M Mg(ClO4)2.
****
C9H12N4O2S HL cyclo-(His-Cys) CAS 20987-75-1 (7984)
cyclo-(Histidyl-cysteinyl);

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M M K1=6.59 B2=12.17 2001GVa (66759)3512
****
C9H12N6O L H-Gly-BIMA CAS 206067-21-2 (7574)
Glycinamido-bis(imidazol-2-yl)methane; NH2CH2CONHCH(C3H3N2)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.20M C B2=10.28 1998VSa (66765)3513
B(ZnHL)=12.40
B(ZnH2L2)=24.04
B(ZnHL2)=17.17
B(Zn2H-2L2)=0.40
Additional method: esr
****
C9H12O6 H3L CAS 16526-68-4 (5948)
cis, cis-1,3,5-Cyclohexanetricarboxylic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.50M U K1=1.76 1983WKa (66770)3514
B(ZnHL)=6.40
B(ZnH2L)=10.28
****
C9H13N L CAS 3987-81-2 (493)
4-t-Butylpyridine; C5H4N.(t-C4H9)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=1.38	1983LRa (66781)	3515

****

C9H13NO HL CAS 63-90-1 (2757)
4-Hydroxyamphetamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	1.00M	C	M	K1=7.28	1976RSd (66790)	3516
							K(ZnL+ATP)=6.23		

****

C9H13NO2 H2L Phenylephrine CAS 61-76-7 (2759)
3-Hydroxy-alpha-(methylaminomethyl)benzyl alcohol; HO.C6H4.CH(CH2.NH.CH3)OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	22°C	0.25M	U			1984GKa (66807)	3517
							K(Zn+HL)=5.56		
Zn++	gl	KNO3	25°C	1.00M	C	M		1976RSd (66808)	3518
							K(Zn+HL)=6.63		
							K(Zn(ATP)+HL)=5.29		

****

C9H13NO2 H2L CAS 35085-65-5 (2758)
4-Hydroxynorephedrine; HO.C6H4.CH(OH).CH(CH3)NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	1.00M	C	M		1976RSd (66813)	3519
							K(Zn+HL)=6.06		
							K(Zn(ATP)+HL)=3.15		

****

C9H13NO3 H2L Normetanephrine CAS 1011-74-1 (2760)
2-(Aminomethyl)-4-hydroxy-3-methoxybenzyl alcohol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	1.00M	C	M		1976RSd (66820)	3520
							K(Zn+HL)=6.06		
							K(Zn(ATP)+HL)=4.58		

****

C9H13NO3 H2L (-)Adrenaline CAS 51-43-4 (252)
4-(1-Hydroxy-2-(methylamino)ethyl)-1,2-dihydroxybenzene,
Epinephrine;CH3NHCH(OH)C6H3(OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C		B2=18.19	1981GKb (66844)	3521

B(ZnHL)=19.75
B(ZnH2L2)=37.99
B(ZnHL2)=28.35
B(ZnH-1L2)=6.74

Zn++ gl KNO3 25°C 1.00M C M 1976RSd (66845)3522
K(Zn+HL)=9.72
K(Zn(ATP)+HL)=8.74

Zn++ gl NaNO3 20°C 0.50M U 1974GSa (66846)3523
B(ZnHL)=18.26

Zn++ gl KCl 25°C 0.10M U K1=10.92 B2=20.12 1966JNa (66847)3524
K1 adjusted to give hypothetical microscopic constant

****

C9H13NO6 H3L (3881)
2,6-Dicarboxypiperidyl-N-ethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=10.25	1968KTd (66875)	3525

****

C9H13N2O3P HL (7918)
(Glycylamino)methyl(phenylphosphinic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=3.58 B2= 6.40	2001LKa (66916)	3526
							B(ZnHL)=10.21		
							B(ZnH-2L)=-13.27		

****

C9H13N2O9P H3L UMP-5 CAS 58-97-9 (2948)
Uridine-5'-monophosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	cal	R4N.X	25°C	0.10M	C			2002HTb (66946)	3527

Medium: 0.10 M (CH3)4NBr. DH(K1)=13.1 kJ mol-1, DS(K1)=83 J K-1 mol-1.

Zn++ gl KNO3 35°C 0.10M U M 1992RAd (66947)3528
K(Zn+HL)=2.23
K(Zn+HL+Gly)=12.92
K(Zn+HL+His)=11.33
K(Zn+HL+histamine)=10.70

Zn++ gl R4N.X 25°C 0.10M C T 1991SMa (66948)3529
K(Zn+HL)=2.38

IUPAC evaluation

Zn++ gl NaNO3 25°C 0.10M C 1988MSa (66949)3530

						K(Zn+HL)=2.02		
Zn++	nmr	oth/un	23°C	0.30M	U M	Keff(ZnA+HL)=2.61	1985PGa	(66950)3531
A=Tetrakis(4-N-methylpyridyl)porphyrin.						pD=7.0		
Zn++	gl	NaClO4	25°C	0.10M	C	K(Zn+HL)=2.03	1984SSe	(66951)3532

C9H13N3O4 HL CAS 3992-42-5 (2266)
Deoxycytidine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	20°C	0.10M	U		B(ZnH-2L)=-14.74	1995GLa	(66990)3533

C9H13N3O5 L Cytidine CAS 65-46-3 (2152)
Cytidine, Cytosine-1-beta-D-ribofuranoside;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	20°C	0.10M	U		B(ZnH-2L)=-14.54	1995GLa	(67026)3534
Zn++	gl	KNO3	25°C	0.10M	U T	HM	K(ZnL+ala)=4.97 K(ZnL+phe)=5.11 K(ZnL+trp)=6.18	1995RSb	(67027)3535
Data for 35 and 45 C. DH(Zn(ala)L)=-16.3 kJ mol-1, DS(Zn(ala)L)=40 J K-1 mol-1; DH(Zn(phe)L)=20.0, DS(Zn(phe)L)=31; DH(Zn(trp)L)=-24.4, DS=36.									
Zn++	nmr	KCl	25°C	0.60M	U		K1=-0.42	1992CPa	(67028)3536
Zn++	gl	NaNO3	25°C	0.50M	C		K1=0.20	1992KJa	(67029)3537
Zn++	gl	KNO3	35°C	0.10M	U	M	K1=0.76 B(ZnL(Ala))=5.06 B(ZnL(Phe))=5.31 B(ZnL(Trp))=5.62	1990RSc	(67030)3538
Zn++	gl	KNO3	35°C	0.10M	C	M	K1=2.60 B(ZnHL(Gly))=13.77 B(ZnL(oxalate))=9.40 B(ZnL(His))=11.95 B(ZnL(histamine))=11.73	1985RRc	(67031)3539
Zn++	gl	KNO3	45°C	0.10M	U		K1=2.82	1981TKa	(67032)3540
Zn++	nmr	non-aq	32°C	100%	U			1980MCa	(67033)3541

```
                                        K(Zn(NO3)2+L)=1.0
Medium: DMSO-d6
-------------------------------------------------------------------------
Zn++       nmr non-aq 36°C 100%  U        K1=0.87        1968WLa (67034)3542
Medium: (CH3)2SO, method: nmr
*************************************************************************
C9H14N2                 L                     CAS 14088-79-0  (3252)
N-Benzylethylenediamine; C6H5.CH2.NH.CH2.CH2.NH2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  50%  U        K1=5.34   B2=8.96   1972GPb (67118)3543
*************************************************************************
C9H14N2O5               L    beta-Asp-Pro     CAS 66180-29-8  (8142)
Pyrrolidine-2-carboxy-1-(2-amino-4-one-butanoic acid), beta-Aspartly-proline;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=5.6         1989ARa (67128)3544
*************************************************************************
C9H14N2O12P2          H4L    UDP              CAS 58-98-0  (3288)
Uridine-5'-diphosphoric acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M M        K1=4.07        1999SSa (67148)3545
                                        K(Zn+H2L)=2.3
                                        K(ZnHL+H)=4.6
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=4.05        1995SBa (67149)3546
*************************************************************************
C9H14N3O7P            H2L    dCMP             CAS 1032-65-1  (5783)
Deoxycytidine-5'-monophosphoric acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C    M   K1=2.14        1995SFa (67176)3547
                                           K(Zn+HL)=0.9
K(Zn+HA)=2.74, K(Zn+A)=1.86. A=H2(cis-(NH3)2Pt(dCMP)2)
-------------------------------------------------------------------------
Zn++       nmr oth/un 25°C 0.20M U    M                  1985PGa (67177)3548
                                           Keff(ZnA+L)=2.48
                                           Keff(ZnAL+L)=0.30
A=Tetrakis(4-N-methylpyridyl)porphyrin.  pH=6.9
*************************************************************************
C9H14N3O8P            H2L    CMP-5            CAS 63-37-6  (1243)
Cytidine-5'-monophosphoric acid, Cytidilic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
```

```
Zn++       cal R4N.X  25°C 0.10M C                        2002HTb (67218)3549
Medium: 0.10 M (CH3)4NBr. DH(K1)=12.9 kJ mol-1, DS(K1)=83.5 J K-1 mol-1.
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M   K1=2.96        2001AAa (67219)3550
Also data for ternary complexes with MOPSO, TAPSO and ACES.
-------------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.10M C      T K1=2.42        1991SMa (67220)3551
IUPAC evaluation
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C        K1=2.06        1988MSa (67221)3552
-------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M U    M                  1986RRe (67222)3553
                                        K(Zn+HL+HA)=5.80
                                        K(Zn+HL+B)=6.80
                                        K(ZnLE+H)=2.96
                                        B(ZnLC)=13.98
B(ZnLD)=14.05.  HA is glycine; H2E is oxalic acid; C is histamine;
HD is histidine.
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  35°C 0.10M U    M   K1=2.25        1985KSc (67223)3554
                                        K(Zn(phen)+L)=3.76
                                        K(Zn(GlyGly)+L)=2.06
                                        B(Zn(salicylate)+L)=1.61
-------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U        K1=2.56        1984MDb (67224)3555
-------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U        K1=2.54        1958WSa (67225)3556
*******************************************************************************
C9H14N4O3              HL    Carnosine        CAS 305-84-0  (272)
3-Alanyl-histidine; H2N.CH2.CH2.CO.NH.CH(CH2.C3H3N2).COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M C        K1=4.05        1994GHb (67299)3557
                                        B(ZnHL)=11.51
-------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C    M   K1=4.00        1983FSc (67300)3558
                                        B(ZnHL)=11.62
                                        B(ZnHL(His))=17.62
                                        B(ZnHL(bpy))=16.51
                                        B(ZnL(bpy))=8.60
-------------------------------------------------------------------------------
Zn++       gl  KNO3   37°C 0.15M C        K1=4.11        1982DAa (67301)3559
                                        B(ZnHL)=11.33
-------------------------------------------------------------------------------
Zn++       gl  KNO3   37°C 0.15M U        K1=3.86        1975APb (67302)3560
                                        K(Zn+HL)=2.18
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U                       1964LMa (67303)3561
                                        K(Zn+HL)=3.39
```

```
------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.16M U        K1=2.30   B2=4.40   1960MEa (67304)3562
                                         K3=2.00
                                         K4=1.7
******************************************************************************
C9H14N4O3              HL    Ala-His          CAS 3253-17-6  (5767)
Alanyl-histidine;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=4.31   B2=8.1    1992LPc (67338)3563
                                         B(Zn2H-2L2)=-4.48
------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.30M C        K1=3.5    B2=7.8    1985RDa (67339)3564
                                         B(ZnH-1L)=-3.6
                                         B(ZnHL)=10.3
                                         B(ZnH-1L2)=0.4
------------------------------------------------------------------------------
Zn++       gl  NaNO3  37°C 0.10M C                  1984RRc (67340)3565
                                         B(ZnHL)=9.87
                                         B(ZnH-1L)=-3.23
By e.s.r. at 32 C, B(ZnHL)=10.05, B(ZnH-1L)=-2.80, B(ZnHL2)=14.00
******************************************************************************
C9H14N5O3P             H2L                   CAS 121149-93-7  (2512)
9-(4-Phosphonobutyl)adenine;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M M        K1=2.75        2000GKa (67352)3566
                                         K(Zn+HL)=1.4
                                         *K(ZnHL)=-6.3
******************************************************************************
C9H15NO3S              H2L    Captopril        CAS 62571-86-2  (5773)
1-(2(S)-3-Mercapto-2-methyl-1-oxopropanyl)-L-proline;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M M    M                  1994KTa (67388)3567
                                         K(ZnA+L)=7.0
A:1,4,7,10-Tetraazacyclododecane
------------------------------------------------------------------------------
Zn++       gl  NaCl   37°C 0.15M U        K1=5.38   B2=11.66  1985HSc (67389)3568
                                         B3=15.30
                                         B(ZnH-1L)=-2.14
                                         B(ZnH-1L2)=1.65
******************************************************************************
C9H15NO5               H2L                    (2459)
2-Amino-2-(2,3-dideoxy-D-erythro-hex-2-enopyranosyl)-propanoic acid;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
```

Zn++ gl KNO3 25°C 0.10M U K1=8.96 B2=11.59 1990BDa (67394)3569
****
C9H15NO6 H3L (7177)
2-Aminopentanoic-N,N-diethanoic acid; C3H7C(COOH)N(CH2COOH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 20°C 0.10M U K1=10.17 1974RMf (67398)3570
****
C9H15NO6 H3L CAS 817-11-8 (3271)
3,3',3''-Nitrilotripropanoic acid; (HOOC.CH2.CH2)3N

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ cal KNO3 25°C 0.10M C H 1983GSb (67426)3571
DH(K1)=13.18 kJ mol-1, DS(K1)=151 J K-1 mol-1

Zn++ gl KCl 30°C 0.10M U K1=5.3 1953CMa (67427)3572
****
C9H15NO6 H3L CAS 95482-53-4 (3270)
N-(2-Carboxyethyl)-3,3-iminodipropanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 30°C 0.10M U K1=7.9 1953CMa (67438)3573
****
C9H15NO6P2 H4L CAS 6056-53-7 (1337)
N-Benzyliminobis(methylenephosphonic) acid; C6H5CH2N(CH2PO3H2)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.20M C K1=9.39 1999MKa (67455)3574
B(ZnHL)=15.26
B(ZnH2L)=19.80
B(ZnH-1L)=-0.20
B(ZnH-2L)=-11.39
*K(ZnL)=-9.59; K(ZnOH+L)=9.19; K(ZnOH+ZnL=Zn(OH)L+Zn)=-0.20.
****
C9H15NO6S H3L DCMM CAS 72306-91-3 (8239)
Dicarboxymethyl-N,N-methionine acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaCl 25°C 0.50M C 1980MFc (67466)3575
K(Zn+HL)=5.57
K(ZnHL+HL)=3.93
Addditional methods: conductivity, spectrophotometry
****
C9H15N2O15P3 H5L UTP CAS 63-39-8 (407)

Uridine-5'-triphosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	R4N.X	25°C	0.10M	C	R	K(Zn+HL)=5.06 K(Zn+H2L)=2.56	1991SMa (67500)3576	

IUPAC evaluation

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	C		K(Zn+HL)=5.01 K(ZnL+H)=4.17 K(Zn+H2L)=2.73	1987STb (67501)3577	
Zn++	gl	KNO3	25°C	0.10M	U	T H	K1=7.21	1983RRe (67502)3578	

Also data for 35 and 45 C. At 45 C: K1=7.00.
DH(K1)=-19.2 kJ mol-1, DS(K1)=74 J K-1 mol-1.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	C	M	K(Zn+HL)=4.75 B(Zn(HL)(bpy))=10.20	1978FMa (67503)3579	
Zn++	gl	KNO3	35°C	0.10M	U		K(Zn+HL)=7.10	1976KRa (67504)3580	
Zn++	nmr	NaClO4	25°C	0.10M	U	M	K(ZnL+H)=8.71 K(Zn(OH)L+H)=9.24 K(Zn(bpy)L+H)=9.13	1975SIb (67505)3581	

By spectrophotometry, K(ZnL+H)=8.8.

****

C9H15N3 L CAS 60354-75-8 (6081)
2,6-Di(2-aminoethyl)pyridine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	20°C	1M	C		K1=7.50 B(ZnH-1L)=-1.25	1992CPb (67539)3582	

****

C9H15N3 L CAS 72830-26-3 (3253)
2-(2-(2-Aminoethyl)aminoethyl)pyridine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	oth/un	25°C	0.10M	U		K1=6.7	1964LMb (67546)3583	

****

C9H15N3O L CAS 96551-18-7 (6150)
2-Amino-3-aminomethyl-4-methoxymethyl-6-methylpyridine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

```
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.35M M        K1=2.93   B2=5.7 ?  1985CSa (67554)3584
********************************************************************************
C9H15N3O4              HL    Gly-Gly-Pro        (6982)
Glycyl-glycyl-proline;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   20°C  0.5M U        K1=3.35        1974KHb (67560)3585
********************************************************************************
C9H15N3O11P2          H3L    CDP              CAS 63-38-7  (2187)
Cytidine-5'-diphosphoric acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M M         K1=4.10        1999SSa (67577)3586
                                          K(Zn+HL)=2.4
                                          K(ZnL+H)=4.69
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U         K1=3.93        1984MDb (67578)3587
                                          B(ZnHL)=8.69
********************************************************************************
C9H16N2O4             H2L                    CAS 124099-99-6  (6518)
1,4-Diazacycloheptane-N,N'-diethanoic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M U         K1=7.98        1990HNa (67613)3588
********************************************************************************
C9H16N2O4             H2L                    CAS 96287-30-8  (8140)
Azetidine-2-carboxy-1-(2-aminopentanoic acid);
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C         K1=7.25        1989ARa (67617)3589
********************************************************************************
C9H16N2O6             H2L                    CAS 24709-35-8  (3274)
N-(2-(2-Ethoxycarbonylamino)ethyl)iminodiethanoic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U         K1=6.86   B2=12.09  1955SAa (67622)3590
********************************************************************************
C9H16N3O14P3          H4L    CTP              CAS 65-47-4  (406)
Cytidine-5'-triphosphoric acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.10M C TI   R K1=5.09        1991SMa (67674)3591
                                           K(Zn+HL)=2.88
```

IUPAC evaluation

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	C		K1=5.03 K(Zn+HL)=3.05 K(ZnL+H)=4.57	1987STb (67675)3592	
Zn++	gl	KCl	25°C	0.10M	U		K1=4.79 B(ZnHL)=9.36	1984MDb (67676)3593	
Zn++	gl	KNO3	25°C	0.10M	U T H		K1=5.22 K(Zn+HL)=4.56	1983RRe (67677)3594	

Also data for 35 and 45 C. At 45 C: K1=5.02, K(Zn+HL)=4.40.
DH(K1)=-18.0 kJ mol-1, DS(K1)=39 J K-1 mol-1; DH(Zn+HL)=-14.6, DS=38

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	C	M	K1=4.79 B(ZnL(bpy))=10.44 K(Zn(bpy)+L)=5.14 K(Zn+HL)=2.98 K(ZnL+H)=4.70	1977SIc (67678)3595	
Zn++	nmr	NaClO4	25°C	0.10M	U		K(Zn(OH)L+H)=8.79	1975SIb (67679)3596	
Zn++	gl	KNO3	35°C	0.1M	C	I	K1=5.12 K(Zn+HL)=4.48	1975TRc (67680)3597	

****

C9H16N4O4 L CAS 157358-29-7 (7398)
N,N'-Bis(2-hydroxyiminopropionyl)propane-1,3-diamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	25°C	0.15M	C		K1=6.74 B(ZnH-1L)=-3.36 B(ZnH-2L)=-14.50	2004NJb (67723)3598	

****

C9H16N4O5 HL (7472)
2-Hydroxymethylserylhistidine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.20M	C		B(ZnH-1L)=-3.13 B(ZnH-2L)=-12.87 B(ZnH-1L2)=-0.16	1999MKb (67728)3599	

****

C9H16O4 H2L CAS 1636-27-7 (485)
Dipropylpropanedioic acid (Di-n-propylmalonic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

```
Zn++       gl  KNO3   25°C 0.10M C   H    K1=2.50   B2=4.33   1989ABa (67763)3600
                                          B(Zn(bpy)L)=7.65
DH(K1)=19.5 kJ mol-1, DS(K1)=111.7 J K-1 mol-1
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=2.45        1970OVa (67764)3601
--------------------------------------------------------------------------------
Zn++       con oth/un 25°C .001M U        K1=3.15        1931IRb (67765)3602
********************************************************************************
C9H17NO5               HL    Pantothenic acd  CAS 63409-48-3  (2629)
N-(2,4-Dihydroxy-3,3-dimethylbutyryl)-3-aminopropanoic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.24M U        K1=1.65        1980FMd (67811)3603
********************************************************************************
C9H17NO6              H2L                      CAS 58144-32-4  (6077)
N-(1,1-Di(hydroxymethyl)propyl)iminodiethanoic acid;
(HO.CH2)2C(CH2.CH3).N(CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C  1.0M C        K1=9.67   B2=13.60  1981ASb (67824)3604
                                         B(ZnHL)=12.61
                                         B(ZnH-1L)=1.38
********************************************************************************
C9H17NO6S              HL                       (6381)
2-(D-Deoxyglucosyl)thiazolidine-4-carboxylic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M C        K1=2.81        1990GNa (67833)3605
                                         B(ZnH-1L)=-3.72
                                         B(ZnH-2L)=-11.07
                                         B(Zn2H-5L2)=-27.00
********************************************************************************
C9H17NO7S              HL                       (6462)
2(RS)-1,2,3,4,5-Pentahydroxypentylthiazolidine-4(R)-carboxylic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M C        K1=4.01        1992GNa (67839)3606
                                         B(Zn2L)=6.93
                                         B(Zn2H-1L)=-0.94
                                         B(Zn2H-2L)=-9.20
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M C        K1=3.75   B2=6.51   1990GNa (67840)3607
                                         B(ZnH-1L2)=-0.95
                                         B(ZnH-2L2)=-8.24
Data also for D-galactosyl:K1=4.01,B2=6.93,B(ZnH-1L2)=-0.94,B(ZnH-2L2)=-9.20
********************************************************************************
```

C9H17N3O4S H2L Ala-Ala-Cys (6477)
Alanyl-alanyl-cysteine

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	U		B2=12.09 B(ZnHL2)=20.40 B(ZnH2L2)=27.86 B(ZnH-1L2)=2.83	1990CRa (67863)	3608

****

C9H17N3O5 H2L 2,2-DIHA CAS 709640-94-8 (9155)
N-Hydroxy-N'-[3-(hydroxymethylamino)-3-oxopropyl]-N-methyl-butanediamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.20M	C		K1=7.95 B(ZnHL)=13.83 B(Zn2L3)=22.01	2004FBa (67878)	3609

****

C9H18N2O3 HL Ala-Leu CAS 1999-42-4 (264)
Alanyl-leucine; H2N.CH(CH3).CO.NH.CH(CH2.CH(CH3)2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	20°C	0.20M	U		K1=2.93 B2=5.67	1982KRc (67898)	3610
Zn++	gl	KNO3	20°C	0.5M	U		K1=3.20	1974KHb (67899)	3611

****

C9H18N2O3 HL Leu-Ala CAS 7298-84-2 (4659)
Leucylalanine- H2N.CH(CH2.CH(CH3)2).CO.NH.CH(CH3).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	ISE	oth/un	20°C	0.20M	U		K1=2.45 K1=2.93 (L-leucyl-D-alanine)	1967KKa (67911)	3612

****

C9H19NS2 HL CAS 150-11-8 (1154)
N,N-Di(n-butyl)dithiocarbamate; (C4H9)2N.CSSH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	EMF	non-aq	25°C	100%	U		B2=12.8	1987USa (67987)	3613

Medium: DMF, 0.1 M LiClO4

****

C9H19N2O4+ H2L (3277)
2-Di(carboxymethyl)aminoethyltrimethylammonium cation
+

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

Zn++ gl KCl 20°C 0.10M U K1=5.34 B2=9.85 1955SAa (67996)3614
****
C9H20N2O2 L 13-AneN2O2 CAS 60350-15-4 (5662)
1,4-Dioxa-7,11-diazacyclotridecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaNO3 25°C 0.10M U K1=4.89 1986TSa (68034)3615

Zn++ gl NaNO3 25°C 0.10M U K1=4.89 1985THd (68035)3616
****
C9H20N2O4S HL HEPPS CAS 16052-06-5 (7900)
N-(2-Hydroxethyl)piperazine-N'-3-propanesulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ vlt oth/un 0.7M C 2001SVa (68042)3617
K1eff(ZnL)=8.54
Method: cathodic stripping voltammetry with ligand exchange.
Medium: sea water, 0.05 M Tris (pH 8.07).

Zn++ vlt oth/un 0.7M C 2001SVa (68043)3618
K1eff(ZnL)=8.54
Method: cathodic stripping voltammetry with ligand exchange.
Medium: sea water, 0.05 M Tris (pH 8.07).
****
C9H20N2O5S HL HEPPSO CAS 68399-78-0 (2011)
N-(2-Hydroxyethyl)piperazine-N'-(2-hydroxypropanesulfonic acid);

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C K1=4.13 2001AOa (68051)3619
****
C9H20N2O6 L CAS 267643-08-3 (919)
(2S)-2,3-Diaminopropyl-beta-D-glucopyranoside;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaCl 25°C 0.16M C K1=5.49 B2= 9.80 2000SMa (68058)3620
K(Zn+HL)=2.3
K(ZnL+OH)=4.2
K(ZnL2+OH)=4.20
K(ZnL2+2OH)=8.0
****
C9H20N2O6 L CAS 221558-98-1 (690)
1,3-Diamino-2-propyl-alpha-D-mannopyranoside;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaCl 25°C 0.16M C K1=4.3 B2= 8.30 2000SMa (68062)3621

```
                                        K(ZnL+OH)=4.5
                                        K(ZnL2+OH)=5.2
                                        K(ZnL2+2OH)=9.3
********************************************************************************
C9H20N2O6               L                       CAS 220972-45-2  (622)
1,3-Diamino-2-propyl-beta-D-glucopyranoside;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaCl   25°C 0.16M C        K1=3.95        2000SMa (68066)3622
                                        K(ZnL+OH)=3.8
********************************************************************************
C9H21N3                 L                         (6817)
1,4,8-Triazacyclododecane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=7.01        1990KSa (68166)3623
                                        *K(ZnL(H2O))=-7.34
********************************************************************************
C9H21N3                 L                       CAS 294-80-4  (1531)
1,5,9-Triazacyclododecane; cyclo(-NH.(CH2)3.NH.(CH2)3.NH.(CH2)3-)
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  non-aq 25°C  10%  C        K1=8.70        1998SJa (68181)3624
                                        *K(Zn(H2O)L)=-7.53
Medium: 10.2% (v/v) acetonitrile/H2O, 0.1 M NaClO4.
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U   H    K1=8.25        1996IFb (68182)3625
                                        *K(ZnL)=-7.44
DH(K1)=14.6 kJ mol-1, DS(K1)=207.1 J K-1 mol-1.
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U T      K1=8.41        1990KSa (68183)3626
                                        *K(ZnL(H2O))=-7.30
At 0 C: *K(ZnL(H2O))=-7.89.
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.20M U    M                  1990KSa (68184)3627
                                        K(ZnL+OH)=6.4
                                        K(ZnL+SCN)=2.4
                                        K(ZnL+I)=1.6
                                        K(ZnL+Br)=1.5
K(ZnL+CH3COO)=2.6.   K(ZnL+F)=0.8.
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M M        K1=8.75        1978ZOa (68185)3628
                                        B(ZnL(OH))=15.04
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=8.8         1975DDa (68186)3629
********************************************************************************
C9H21N3O                L                         (2479)
```

1-Oxa-4,7,11-triazacyclotridecane; cyclo(-O.(CH2.CH2.NH)2.CH2.CH2.CH2.NH.CH2.CH2-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=9.80 B(ZnH-1L)=2.19 B(ZnH-2L)=-8.6 K(ZnL+OH)=6.21 K(ZnL+2OH)=9.24	1991ACa (68197)	3630
Zn++	gl	NaNO3	25°C	0.10M	U		K1=9.90	1986TSa (68198)	3631
Zn++	gl	NaNO3	25°C	0.10M	C		K1=9.94	1983THa (68199)	3632

C9H21N3O3 L CAS 221233-44-9 (7658)
cis,cis,cis-2,4,6-Trimethoxycyclohexane-1,3,5-triamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=10.80 B2=18.54	1999WKa (68210)	3633

C9H22N4 L CAS 295-14-7 (9)
1,4,7,10-Tetraazacyclotridecane; cyclo(-(NH.CH2.CH2.)4.CH2-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U	H	K1=15.74	1980MPa (68242)	3634
DH(K1)=-70.0 kJ mol-1, DS(K1)=86.5 J K-1 mol-1									
Zn++	vlt	oth/un	25°C	0.20M	U	H	K1=15.6	1977KKa (68243)	3635
DH(K1)=-32.6 kJ mol-1									

C9H22N4 L N-Methylcyclen CAS 133008-74-9 (8674)
1-Methyl-1,4,7,10-tetraazacyclododecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	C	M	K(ZnL+A)=2.0 K(ZnL+SCN)=2.4 K(ZnL+B)=3.3 K(ZnL+Cl)=1.7	1995KKc (68250)	3636

HA is ethanoic acid, H2B is 4-nitrophenylphosphoric acid.

C9H22N4 L CAS 22217-18-1 (4657)
N,N'-Bis(2-aminoethyl)-1,4-diazacycloheptane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	U		K1=10.18	1977PBb (68256)	3637

****

C9H24N3O6P3 H3L (7110)
1,4,7-Triazacyclononane-1,4,7-triyltrimethylenetris(phosphinic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=13.04	1995BLa	(68287)3638

****

C9H24N3O9P3 H6L NOTPH CAS 83843-39-3 (224)
1,4,7-Triazacyclononane-N,N',N"-tris(methylenephosphonic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	1.0M	U		K1=24.9	1984KMa	(68300)3639
							K(Zn+HL)=18.3		
							K(Zn+H2L)=14.1		

****

C9H24N4 L CAS 129880-56-4 (1533)
1,4,10,13-Tetraazatridecane; H2N.(CH2)2.NH.(CH2)5.NH.(CH2)2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	1.00M	C	H	K1=9.80	1982ABc	(68332)3640
							B(ZnH2L)=22.9		

By calorimetry: DH1=-31.0 kJ mol-1, DS1=80.3

****

C9H24N4 L CAS 4605-14-5 (1797)
1,5,9,13-Tetraazatridecane; H2N.(CH2)3.NH.(CH2)3.NH.(CH2)3.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	20°C	0.10M	U		K1=8.20	1991WBa	(68355)3641
Zn++	gl	oth/un	25°C	?	U		K1=9.12	1976NGa	(68356)3642
Zn++	gl	NaClO4	25°C	?	U		K1=9.12	1976NGe	(68357)3643
Zn++	cal	NaNO3	25°C	0.10M	U		K1=9.30	1972BFb	(68358)3644

****

C9H24N4 L CAS 4963-47-7 (546)
Tris-(3-aminopropyl)amine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	M		K1=10.72	2003IIa	(68382)3645
							*K(ZnL)=-9.99		
Zn++	gl	KCl	25°C	0.10M	U		K1=10.702	1968DPa	(68383)3646
Zn++	sp	KCl	25°C	0.10M	U		K1=10.70	1968VPa	(68384)3647

Zn++ gl NaNO3 20°C 0.10M U K1=9.41 1962TAb (68385)3648
****
C9H28N3O15P5 10L DTPPH CAS 15827-60-8 (2921)
Diethylenetriamine-N,N,N',N",N"-penta(methylphosphonic acid);
H2O3PCH2.N(CH2CH2.N(CH2PO3H2)2)2 H

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.10M U K1=16.45 1967KDa (68397)3649
K(Zn+HL)=13.36
K(Zn+H2L)=10.41
K(Zn+H3L)=8.44
K(Zn+H4L)=6.77
K(Zn+H5L)=5.23, K(Zn+H6L)=3.91
****
C10H6O3 HL CAS 83-72-7 (3294)
2-Hydroxy-1,4-naphthoquinone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp alc/w 25°C 50% M K1=2.61 2000HSc (68453)3650
K(Zn+H2L=ZnL+2H)=-2.65
Medium: 50% v/v EtOH/H2O, 0.10 M NaClO4.

Zn++ vlt oth/un 25°C 0.20M U B2=8.49 1966SPa (68454)3651
phosphate buffer

Zn++ gl diox/w 30°C 75% U K1=6.14 B2=11.55 1960KFc (68455)3652
****
C10H6O3 HL CAS 481-39-0 (3295)
5-Hydroxy-1,4-naphthoquinone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp alc/w 25°C 50% M K1=4.21 B2=12.07 2000HSc (68471)3653
K(Zn+HL=ZnL+H)=-4.45
K(ZnL+HL=ZnL2+H)=-0.84
Medium: 50% v/v EtOH/H2O, 0.10 M NaClO4.
****
C10H6O4 H2L CAS 475-38-7 (6120)
5,8-Dihydroxy-1,4-naphthoquinone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp alc/w 25°C 50% M K1=2.9 2000HSc (68487)3654
K(Zn+H2L=ZnL+2H)=-8.68
K(Zn(OH)2L+2H)=14.18
Medium: 50% v/v EtOH/H2O, 0.10 M NaClO4.
****

C10H6O8 H4L Pyromellitic Ac CAS 89-05-4 (519)
Benzene-1,2,4,5-tetracarboxylic acid; C6H2.(COOH)4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	vlt	KNO3	20°C	0.24M	U		K1=2.12 B3=7.15 B4=10.71	B2=4.86	1972NSb (68500)	3655

****

C10H7NO2 HL CAS 131-91-9 (2668)
1-Nitroso-2-naphthol, alpha-Nitroso-beta-naphthol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	sp	KCl	25°C	0.10M	U		K1=4.63		1971MSf (68562)	3656
Zn++	gl	diox/w	30°C	75%	U	I	K1=9.32	B2=17.02	1957CFa (68563)	3657
In 50% dioxan K1=6.76, K2=5.68										
Zn++	gl	diox/w	30°C	75%	U		K1=9.5	B2=17.3	1954UFa (68564)	3658

****

C10H7NO2 HL CAS 14510-06-6 (4715)
2-Formyl-8-hydroxyquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U		K1=7.25	B2=14.39	1972HUb (68605)	3659
Medium: 50% v/v dioxan, 0.1 M KCl										

****

C10H7NO2 HL CAS 132-53-6 (2524)
2-Nitroso-1-naphthol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	21°C	50%	U		K1=5.60	B2=11.00	1970MGd (68629)	3660
Medium: 50% dioxan, 0.3 M NaClO4										
Zn++	sp	KCl	25°C	0.10M	U		K1=3.91		1970SMa (68630)	3661
Zn++	gl	diox/w	30°C	50%	U	I	K1=5.70	B2=10.92	1957CFa (68631)	3662
In 75% dioxan K1=8.40, K2=7.02										
Zn++	gl	diox/w	30°C	75%	U		K1=8.70	B2=15.70	1954UFa (68632)	3663

****

C10H7NO2 HL CAS 2598-30-3 (3317)
5-Formyl-8-hydroxyquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U		K1=6.45	B2=12.70	1958JPa (68670)	3664

K3=4.95

Medium: 50% dioxan, 0.3 M NaCl

****

C10H7NO2 HL Quinaldic acid CAS 93-10-7 (2209)

Quinoline-2-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=9.88	B2=18.18	1988ZMa (68689)	3665
Zn++	gl	diox/w	25°C	50%	U		K1=5.1	B2=9.7	1955HCb (68690)	3666
Zn++	sp	oth/un	25°C	0.0	U		K1=4.17		1955LUa (68691)	3667

****

C10H7NO2 HL CAS 86-59-9 (873)

Quinoline-8-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	alc/w	30°C	50%	U		K1=3.85	B2=7.00	1981RRa (68743)	3668

Medium: 50% v/v EtOH, 0.1 M KNO3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U		K1=4.9	B2=9.0	1955HCb (68744)	3669
Zn++	gl	oth/un	25°C	0.0	U		K1=3.05	B2=5.89	1955LUa (68745)	3670

****

C10H7NO2S HL CAS 10958-38-5 (3922)

3-Phenyl-1,2-thiazole-5-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U		K1=1.66		1968EGb (68778)	3671

Medium: 50% dioxan, 0.1 M NaClO4

****

C10H7NO3 H2L Kynurenic acid CAS 492-77-3 (1540)

4-Hydroxy-2-quinolinecarboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U		K1=3.4	B2=6.50	1964BFa (68785)	3672
							K(Zn(OH)L+H)=7.0			
							K(Zn(OH)2L+H)=8.1			

****

C10H7NO4 H3L Xanthurenic aci CAS 59-00-7 (1539)

4,8-Dihydroxy-2-quinolinecarboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U		K1=7.7	B2=13.70	1964BFa (68792)	3673
							K(Zn(OH)L+H)=9.7			

K(Zn(OH)2L+H)=11.3

****

C10H7NO5S H2L CAS 97573-20-5 (3332)
1,2-Naphthoquinone-4-sulfonic acid-2-oxime

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	U			1961MAd (68799)	3674

K(Zn+HL=ZnL+H)=3.04

****

C10H7NO5S H2L CAS 14090-74-5 (2676)
1-Nitroso-2-hydroxynaphalene-7-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	EMF	KCl	25°C	0.10M	U		K1=4.13 B2=7.50	1970MSh (68805)	3675

****

C10H7NO5S H2L CAS 14090-74-5 (4765)
1-Nitroso-2-hydroxynaphthalene-4-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	EMF	KCl	25°C	0.10M	U	I	K1=4.30 B2=7.49	1973MSf (68827)	3676

I=0, K1=5.08, B2=8.39

****

C10H7NO5S H2L CAS 50332-97-3 (2660)
1-Nitroso-2-hydroxynaphthalene-5-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	EMF	KCl	25°C	0.10M	U	I	K1=4.46 B2=7.99	1973MSf (68830)	3677

I=0, K1=5.26, B2=8.92

****

C10H7NO5S H2L (4766)
1-Nitroso-2-hydroxynaphthalene-6-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	U	I	K1=4.19 B2=7.73	1969MSa (68837)	3678

I=0: K1=5.05, B2=8.56

****

C10H7NO5S H2L CAS 3682-32-4 (1812)
2-Nitroso-1-hydroxynaphthalene-4-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	KCl	25°C	0.10M	U		K1=3.56	1970SMa (68872)	3679
Zn++	sp	oth/un	25°C	0.0	U		K1=3.86	1966MAg (68873)	3680

****

C10H7NO5S H2L CAS 23525-13-6 (1813)
2-Nitroso-1-hydroxynaphthalene-5-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	sp	KCl	25°C	0.10M	U		K1=3.82		1970SMa (68907)	3681
Zn++	gl	KCl	25°C	0.10M	U	I	K1=3.58	B2=6.29	1969MSa (68908)	3682

I=0: K1=4.48, B2=7.13

****

C10H7NO5S H2L CAS 26276-78-8 (4763)
2-Nitroso-1-hydroxynaphthalene-6-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	EMF	KCl	25°C	0.10M	U		K1=3.71	B2=6.58	1970MSh (68922)	3683

****

C10H7NO5S H2L (4764)
2-Nitroso-1-hydroxynaphthalene-7-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	oth/un	25°C	0.01M	U	I	K1=4.25	B2=6.97	1970MSg (68927)	3684

I=0.1: K1=3.76, B2=6.45

****

C10H7NO5S H2L CAS 31005-79-9 (1814)
2-Nitroso-1-hydroxynaphthalene-8-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	sp	KCl	25°C	0.10M	U		K1=4.05		1970SMa (68936)	3685
Zn++	EMF	KCl	25°C	0.10M	U		K1=4.04	B2=6.34	1969MSh (68937)	3686

****

C10H7NO8S2 H3L CAS 26276-77-7 (4767)
1-Hydroxy-2-nitrosonaphthalene-4,8-disulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	EMF	KCl	25°C	0.10M	U		K1=3.78	B2=5.79	1970MMh (68960)	3687
Zn++	sp	KCl	25°C	0.10M	U		K1=3.80		1970SMa (68961)	3688

****

C10H7NO8S2 H3L Nitroso-R acid CAS 525-05-3 (1811)
1-Nitroso-2-hydroxynaphthalene-3,6-disulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	10°C	0.10M	U	H	K1=6.90		1979GBf (68990)	3689

```
Zn++       oth KCl    25°C 0.10M U  I     K1=4.5    B2=7.1    1967MAi (68991)3690
At I=0: K1=5.7, B2=7.6
-------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U                      1961MAd (68992)3691
                                        K(Zn+HL=ZnL+H)=-2.42
                                        K(ZnL+HL=ZnL2+H)=-4.30
*******************************************************************************
C10H7NO8S2            H3L                    CAS 52664-45-6  (1627)
2-Nitroso-1-hydroxynaphthalene-4,6-disulfonic acid;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       EMF KCl    25°C 0.10M U  I     K1=3.51   B2=5.83   1973MSf (69047)3692
I=0: K1=4.65, B2=7.25
*******************************************************************************
C10H7NO8S2            H3L                    CAS 50332-99-3  (1628)
2-Nitroso-1-hydroxynaphthalene-4,7-disulfonic acid;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       EMF KCl    25°C 0.10M U  I     K1=3.63   B2=7.25   1973MSf (69057)3693
I=0: K1=4.70, B2=6.69
*******************************************************************************
C10H7N2O2F3S           HL                     CAS 23375-18-0  (1680)
8-(Trifluoromethanesulfonamido)quinoline;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  75%  U        K1=7.7    B2=14.0   1984NYa (69068)3694
*******************************************************************************
C10H7N3O4             H2L    1-Ph-violuric      (957)
1-Phenyl-alloxan-5-oxime,(1-Phenyl-5-isonitrosobarbituric acid);
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  alc/w  18°C  50%  U T      K1=6.68   B2=11.91  1982SGa (69082)3695
Medium: 50% v/v EtOH/H2O, 0.1 M NaClO4
*******************************************************************************
C10H7O2F3              HL                     CAS 326-06-7  (196)
3-Benzoyl-1,1,1-trifluoroacetone; CF3.CO.CH2.CO.C6H5
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       dis NaCl   25°C 0.10M U        K1=3.6    B2=6.2    1984KSb (69124)3696
-------------------------------------------------------------------------------
Zn++       dis NaClO4 25°C  1.0M C    M   K1=3.23   B2= 5.49  1977SMe (69125)3697
                                        K(ZnL2(org)+A(org))=6.71
Method: distribution from 1.0 M NaClO4 into CCl4/HL/tri-octylposphine
oxide (A). K(Zn+2HL(org)=ZnL2(org)+2H)=-9.02.
-------------------------------------------------------------------------------
```

```
Zn++       gl  oth/un   ?   0.0  U        B2=7.30        1951UFa (69126)3698
**************************************************************************
C10H8NO4BrS           H2L                     CAS 37026-31-6  (3933)
7-Bromo-8-hydroxy-2-methylquinoline-5-sulfonic acid;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C .005M U        K1=6.61   B2=12.29  1963FFa (69189)3699
                                          K3 < 3.5
**************************************************************************
C10H8N2                L    2,2'-Bipyridyl   CAS 366-18-7  (25)
2,2'-Bipyridine; (C5H4N)2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaNO3  37°C 0.10M U        K1=5.15        1997MGa (69402)3700
--------------------------------------------------------------------------
Zn++       gl  alc/w  25°C  50%  C        K1=5.90        1997MGb (69403)3701
--------------------------------------------------------------------------
Zn++       cal non-aq 25°C 100%  C   H    K1=4.7    B2= 8.40  1996KSb (69404)3702
                                          B3=10.7
Medium: N,N-dimethylacetamide, 0.10 M Bu4N[BF4].
DH(K1)=-30.6 kJ mol-1, DH(B2)=-59.9 kJ mol-1, DH(B3)=-79.3 kJ mol-1.
--------------------------------------------------------------------------
Zn++       cal non-aq 25°C 100%  U   H    K1=2.03   B2=3.77   1995KOa (69405)3703
                                          B3=4.9
Medium: 4-Methylpyridine, 0.1 M n-Bu4NClO4. DH(K1)=-13.5 kJ mol-1,
DH(B2)=-29, DH(B3)=-34
--------------------------------------------------------------------------
Zn++       gl  NaNO3  37°C 0.10M U        K1=5.15        1994MGc (69406)3704
Data for ternary complexes with 6-aminopenicillanic acid
--------------------------------------------------------------------------
Zn++       gl  KNO3   30°C 0.10M U        K1=5.26        1994RSa (69407)3705
--------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U   HM                  1992UNa (69408)3706
                                          K(ZnA+L=ZnAL)=3.91
                                          K(Zn2B+L=Zn2BL)=4.04
                                          K(ZnC+L=ZnCL)=4.52
                                          K(Zn2D+L=Zn2DL)=7.45
Medium: CHCl3. A,D=substituted porphyrins, B,C=substituted porphyrin dimers
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M   K1=5.13   B2= 9.50  1991DAc (69409)3707
Data for ternary complexes with acetohydroxamic acid
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M   K1=5.13        1990DAc (69410)3708
                                          K(ZnL+A)=4.88
                                          B(ZnAL)=10.01
HL: benzohydroxamic acid
--------------------------------------------------------------------------
Zn++       cal non-aq 25°C 100%  U  IHM   K1=3.7    B2=6.9    1990IMa (69411)3709
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```
                                        B3=8.9
In DMF, 0.16 M Et4NClO4. DH(K1)=-17.4, DH(B2)=-36.6, DH(B3)=-54.0 kJ mol-1
Also data for ternary complexes with Br-, I-,and NCS-.
-------------------------------------------------------------------------------
Zn++       sp  NaClO4 25°C 0.01M C   H    K1=5.23        1988DLb (69412)3710
DH(K1)=-27.4 kJ mol-1, DS(K1)=8 J K-1 mol-1
-------------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  C  I     K1=4.14        1987AWa (69413)3711
Medium: DMSO, 0.06 M NaClO4. In trimethylphosphate: K1=6.27;
In dimethylacetamide: K1=4.71
-------------------------------------------------------------------------------
Zn++       cal non-aq 25°C 100%  U   H    K1=3.95   B2=7.07   1987INa (69414)3712
                                        B3=8.94
Medium: DMF, 0.4 M Et4ClO4. DH(K1)=-18.3, DH(K2)=-19.9,DH(K3)=-18.3 kJ mol-1
DS(K1)=14, DS(K2)=-7 and DS(K3)=-26 J K-1 mol-1.
-------------------------------------------------------------------------------
Zn++       cal non-aq 25°C 100%  C   H    K1=3.95   B2=7.07   1987SNb (69415)3713
                                        K3=1.87
Medium: DMF, 0.4 M Et4NClO4. DH(K1)=-18.3 kJ mol-1, DH(K2)=-19.9,DH(K3)=18.3
-------------------------------------------------------------------------------
Zn++       cal non-aq 25°C 100%  C   HM                  1987SNb (69416)3714
                                        B(ZnClL)=9.24
                                        B(ZnCl2L)=14.54
Medium: DMF, 0.4 M Et4NClO4. DH(ZnClL)=-7.9 kJ mol-1, DH(ZnCl2L)=-16.2
-------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U    M   K1=6.20   B2=11.75  1984ABb (69417)3715
                                        B(ZnL(PFHA))=12.81
                                        B(ZnL(PTHA))=12.92
PFHA=N-phenyl-2-furylhydroxamate, PTHA=N-phenyl-2-thenohydroxamate
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U    M                   1984KRb (69418)3716
                                        K(ZnL+NTA)=10.67
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 35°C 0.10M U        K1=5.17   B2=9.67   1983ABb (69419)3717
-------------------------------------------------------------------------------
Zn++       sp  NaClO4 25°C 0.20M U  I     K1=3.50        1983EBa (69420)3718
-------------------------------------------------------------------------------
Zn++       sp  non-aq 25°C 100%  U        K1=1.77        1981AWa (69421)3719
Medium: hexamethylphosphoric triamide
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 35°C 0.10M U    M                   1980ABb (69422)3720
                                        K(ZnL+A)=5.19
H2A=2-hydroxy-5-nitrobenzoic acid
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.20M C        K1=4.95   B2=9.73   1979MBa (69423)3721
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M                   1978DAb (69424)3722
                                        B(ZnLA)=8.51
                                        B(ZnL2A)=12.99
                                        B(ZnLA2)=12.25
```

HA=N,N-dimethylglycine

Zn++ gl KNO3 25°C 0.10M U M K1=5.04 B2=9.60 1978DOa (69425)3723
B3=13.2

B(ZnAL)=9.61, B(ZnHAL)=13.44, K(ZnL+HA)=2.79, K(ZnL+A)=4.61. H3A=citric acid

---

Zn++ gl KNO3 30°C 0.10M M M 1977MSd (69426)3724
K(ZnL+His)=6.13

Zn++ cal non-aq 30°C 100% U H 1976AGc (69427)3725
K(ZnA2+L)=0.78
K(ZnB2+L)=1.60

In benzene. A=dibutyldithiocarbamate; DH=-40 kJ mol-1; DS=-117 J K-1 mol-1.
B=dibenzyldithiocarbamate; DH=-53.3; DS=-145.

Zn++ kin non-aq 19°C 100% U K1=3.4 1976BMa (69428)3726

Medium: DMSO, 0.2 M NaClO4

Zn++ gl KNO3 25°C 0.10M C K1=5.04 B2=9.60 1975DOb (69429)3727
K3=3.6

Zn++ gl KNO3 25°C 0.10M C K1=5.04 B2= 9.60 1975DOc (69430)3728
B3=13.20

Zn++ gl oth/un 25°C 0.10M U M 1975JBc (69431)3729
K(ZnL+A)=7.03
K(ZnL+B)=6.66

H2A=catechol, H2B=pyrogallol

Zn++ cal non-aq 30°C 100% U H 1974DGa (69432)3730
K(ZnA2+L)=>6

In benzene. HA=thiobenzoyl-1,1,1-trifluoroacetone; DH=-60 kJ mol-1

Zn++ gl oth/un 35°C 0.20M U M 1973JPb (69433)3731
K(ZnL+A)=7.82
K(ZnL+B)=7.89
K(ZnL+C)=7.76

H2A=thioglycollic acid, H2B=thiolatic acid, H2C=thiomalic acid.

Zn++ oth NaClO4 30°C 0.20M U M 1972MJa (69434)3732
B(ZnLA)=7.81
B(ZnLB)=8.75
K(Zn+L+HC)=7.35

H2A=pyrocatechol, H3B=protocatechuic acid, H3C=pyrogallol.

Zn++ EMF KNO3 30°C 0.10M U M 1972STa (69435)3733
B(ZnL(en))=4.90
B(ZnL(pn))=5.20

Zn++ gl NaClO4 25°C 0.10M U M K1=5.30 B2=9.83 1971GSb (69436)3734

B(ZnLA)=15.19
B(ZnL(Gly))=9.87
B(ZnL(en))=10.40

H2A=catechol

Zn++ gl KNO3 30°C 1.0M U HM K1=5.26 B2=9.81 1965DDa (69437)3735
K3=3.96

By calorimetry:DH(K1)=-26.1 kJ mol-1, DS=14.6 J K-1 mol-1; DH(B2)=-49.1, DS=25.9; DH(B3)=-66.5, DS=44.3. Ternary complexes with many ligands

---

Zn++ cal NaNO3 20°C 0.10M U H 1963ANb (69438)3736

DH(K1)=-29.7 kJ mol-1, DS=0 J K-1 mol-1; DH(B2)=-52.3, DS=10; DH(B3)=-73.2, DS=11.3

Zn++ gl NaNO3 20°C 0.10M U K1=5.30 B2=9.83 1963ANg (69439)3737
K3=3.80

Zn++ gl NaClO4 25°C 1.0M U H K1=4.89 B2=9.47 1962ABa (69440)3738
K3=4.27

DH(K1)=22.2 kJ mol-1, DS=21; DH(K2)=22.2, DS=13; DH(K3)=22.2, DS=8

Zn++ ISE KNO3 40°C 0.10M U T K1=4.86 B2=9.10 1962CLa (69441)3739
K3=3.56

K1=5.39(10 C),5.20(20 C),6.16(25 C); K2=4.74(10 C),4.50(20 C),4.46(25 C); K3=4.01(10C),3.74(25C). DH((K1)=-29.2 kJ mol-1,DH(K2)=-28,DH(K3)=-24.2

Zn++ ISE alc/w 40°C 42% U TIH K1=4.54 B2=8.40 1962CLa (69442)3740
K3=2.91

Medium:41.5% EtOH, 0.05 M KNO3.K1=5.08(10 C),4.95(20 C),4.68(32 C); K2=4.43 (10C),4.17(20C),3.98(32C);K3=3.28(10C),3.05(32C).DH(K1)=-31 kJ mol-1

Zn++ dis KCl 25°C 0.10M U K1=5.04 B2=9.39 1962IMa (69443)3741
K3=3.57

Zn++ gl KNO3 25°C 0.10M U K1=5.4 B2=9.8 1956YSb (69444)3742
B3=13.3

Zn++ sp oth/un 25°C 0.01M U K1=5.0 B2=12.0 1955LFb (69445)3743
B3=17.14

****

C10H8N2 L CAS 553-26-4 (501)

4,4'-Bipyridyl; (C5H4N)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

---

Zn++ sp non-aq ? 100% U M 1990AHb (69668)3744
K(ZnA+L)=3.26

Medium: CH2Cl2. A=biphenyl capped mesoporphyrin. Data for other porphyrin Zn complexes

****

C10H8N2O2 HL CAS 80690-06-8 (874)
5-Aminoquinoline-8-carboxylic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 30°C 50% U K1=5.04 B2=9.50 1981RRa (69673)3745
Medium: 50% v/v EtOH, 0.1 M KNO3
****
C10H8N2O2 HL CAS 5603-22-5 (2753)
8-Hydroxyquinoline-2-carboxaldehyde oxime

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 50% U K1=8.09 B2=15.75 1967SFa (69680)3746
****
C10H8N2O2S HL CAS 15112-10-4 (8299)
N-Phenyl-2-thiobarbituric acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 31°C 0.10M U T H K1=7.30 B2=13.00 1984SJa (69689)3747
Also data for 18 and 42 C. DH(K1)=-106 kJ mol-1, DS(K1)=-209 J K-1 mol-1
DH(K2)=-59.1, DS(K2)=-86.0. Also data for N-tolyl- derivatives.
****
C10H8N2O5 HL CAS 36874-89-9 (6226)
4-Nitromaleanilic acid; HOOC.CH:CH.CO.NH.C6H4.NO2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 22°C 80% U T H K1=7.85 B2=13.35 1985SAb (69706)3748
30 C: K1= 7.70, K2=5.40; 40 C: K1= 7.50, K2=5.30
DH(K1)=-33.9 kJ mol-1, DS=63 J K-1 mol-1; DH(K2)=-20.3, DS=38
****
C10H8N2O6S H2L CAS 37226-33-8 (3923)
2-Methyl-7-nitro-8-hydroxyquinoline-5-sulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C .005M U K1=5.31 B2=9.63 1963FFa (69712)3749
K3 < 3.5
****
C10H8N4O4 H3L CAS 92265-25-3 (7738)
5-(o-Hydroxyphenylazo)-barbituric acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 37°C 40% C K1=5.22 B2= 9.47 1998AAa (69745)3750
Medium: 40% v/v EtOH/H2O, 0.15 M NaClO4.

Zn++ gl alc/w 37°C 40% C M K1=5.22 B2= 9.47 1997AAb (69746)3751

B(Zn(gly)L)=10.00
K(Zn(gly)+L)=4.52
K(ZnL+gly)=4.78
B(Zn(ala)L)=10.06

Medium: 40% v/v EtOH/H2O, 0.15 M NaClO4. K(Zn(ala)+L)=4.70, K(ZnL+ala)=
4.84; B(Zn(leu)L)=9.88, K(Zn(leu)+L)=4.64, K(ZnL+leu)=4.66.

****

C10H8O2 H2L CAS 92-44-4 (1658)
2,3-Dihydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	30°C	0.20M	U	M		1974MJa	(69762)3752
							K(ZnA+L)=5.25		

H4A=EDTA

****

C10H8O5S H3L DHNSA (877)
2,3-Dihydroxynaphthalene-6-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.50M	C		K1=8.97 B2=16.50	1976LAe	(69828)3753

****

C10H8O8S2 H4L Chromotropic ac CAS 148-25-4 (1875)
1,8-Dihydroxynaphthalene-3,6-disulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	U		K1=10.03	1990HWa	(69915)3754
Zn++	gl	KNO3	27°C	0.10M	U		K1=5.85 B2=10.90	1988AIa	(69916)3755

****

C10H9NO HL 8-OH-Quinaldine CAS 826-81-3 (998)
2-Methyl-8-hydroxyquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	KCl	30°C	1.0M	M		K1=7.60	1996BTa	(70024)3756
Zn++	gl	diox/w	35°C	50%	U	T	K1=9.40	1992ELa	(70025)3757

Medium: 50% dioxane/H2O (I=0.1 M, electrolyte not stated).
Data for 30-45 C.

Zn++	dis	non-aq	25°C	100%	U	M		1968CFc	(70026)3758
							K(ZnL+py)=1.60		
							K(ZnL+A)=1.00		
							K(ZnL+B)=1.75		
							K(ZnL+C)=0.20		

Medium: chloroform. A=2-methylpyridine, B=4-methylpyridine, C=2,4,6-tri-
methylpyridine

Zn++ cal diox/w 25°C 50% U H 1968GFa (70027)3759
Medium: 50% dioxan, 0.1 M NaClO4. DH(K1)=-15.9 kJ mol-1, DS=121 J K-1 mol-1
DH(B2)=-46.4, DS=188

Zn++ gl diox/w 25°C 50% U K1=9.06 B2=17.90 1967SFa (70028)3760

Zn++ dis diox/w 25°C 50% U B2=15.68 1965CFa (70029)3761
B3=18.28

Zn++ sp alc/w ? 100% U K1=11.6 B2=23.2 1964COa (70030)3762
Medium: EtOH

Zn++ gl diox/w 20°C 50% U K1=8.66 B2=16.76 1954IRa (70031)3763
Medium: 50% dioxan, 0.3 M NaClO4

Zn++ gl diox/w 40°C 50% U T H K1=9.47 1954JFa (70032)3764
K1=10.07(0.7 C),9.82(25 C); K2=9.27(0.7 C). DH(B2)=-43.0 kJ mol-1, DS=213
****
C10H9NO HL CAS 5541-67-3 (999)
5-Methyl-8-hydroxyquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 20°C 50% U K1=9.46 B2=17.86 1954IRa (70061)3765
Medium: 50% dioxan, 0.3 M NaClO4
****
C10H9NO HL CAS 5541-68-4 (1000)
7-Methyl-8-hydroxyquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 20°C 50% U K1=9.31 B2=17.42 1954IRa (70074)3766
Medium: 50% dioxan, 0.3 M NaClO4
****
C10H9NO HL CAS 3846-73-9 (3320)
8-Hydroxy-4-methylquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ dis non-aq 25°C 100% U M 1968CFc (70086)3767
K(ZnL+py)=2.47
K(ZnL+A)=2.00
K(ZnL+B)=2.87
K(ZnL+C)=1.50
Medium: chloroform. A=2-methylpyridine, B=4-methylpyridine,
C=2,4,6-trimethylpyridine

Zn++ gl diox/w 25°C 50% U H K1=9.76 B2=18.96 1968GFa (70087)3768
Medium: 50% dioxan, 0.1 M NaClO4. By calorimetry: DH(K1)=-23.4 kJ mol-1,

DS=108 J K-1 mol-1; DH(B2)=-53.5, DS=184

Zn++ dis oth/un 25°C 0.10M U B2=18.1 1965CFa (70088)3769

Zn++ gl diox/w 40°C 50% U T H K1=10.25 B2=19.44 1954JFa (70089)3770
K1=11.25(0.7 C),10.67(25 C); K2=10.28(0.7 C),9.57(25 C);
DH(B2)=-81.9 kJ mol-1, DS=109 J K-1 mol-1
****
C10H9NO L CAS 938-33-0 (3322)
8-Methoxyquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl oth/un 25°C 0.10M U K1=1.6 1964PCa (70105)3771
****
C10H9NO2 HL CAS 57334-35-7 (3905)
2-Hydroxymethyl-8-hydroxyquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp KCl 30°C 1.0M M K1=7.81 1996BTa (70114)3772

Zn++ gl diox/w 25°C 50% U K1=10 1967SFa (70115)3773
****
C10H9NO2 HL CAS 87-51-4 (891)
Indole-3-ethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 50% C M K1=2.48 1985BSd (70133)3774
K(Zn(phen)+L)=2.72
Medium: 50% v/v dioxan/H2O, 0.1 M NaClO4
****
C10H9NO3 HL Maleanilic acid CAS 37902-58-2 (6225)
Maleanilic acid; HOOC.CH:CH.CO.NH.C6H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 22°C 80% U T H K1=7.45 B2=13.65 1985SAb (70155)3775
30 C: K1= 7.30, K2=6.10; 40 C: K1= 7.15, K2=6.00
DH(K1)=-23.2 kJ mol-1, DS=62 J K-1 mol-1; DH(K2)=-13.7, DS=70
****
C10H9NO3S H2L CAS 49608-51-7 (8280)
4,5-Dihydro-2-(2-hydroxyphenyl)-4-thiazolecarboxylic acid,
Deazademethyldesferrithiocin;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C K1=8.5 B2=14.60 1990ARa (70163)3776
****

C10H9NO3S2 HL (7206)
6-Methyl-5-sulfo-8-mercaptoquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp oth/un 20°C 0.10M U K1=9.2 B2=17.80 1985DAb (70173)3777
****
C10H9NO4S H2L CAS 29021-67-8 (3926)
2-Methyl-8-hydroxyquinoline-5-sulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaCl 25°C 0.50M U K1=7.32 B2=14.01 1967TMd (70193)3778

Zn++ gl NaClO4 25°C .005M U K1=7.50 B2=14.64 1963FFa (70194)3779
K3 < 3.5
****
C10H9NO5 H2L CAS 27855-25-0 (4720)
2-Carboxybenzoylglycine; HOOC.C6H4.CO.NH.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ ISE NaClO4 20°C 3.0M U K1=2.90 B2=3.54 1967KAa (70206)3780
B3=3.96
****
C10H9NO7S2 H3L CAS 82-47-3 (6247)
8-Amino-1-hydroxynaphthalene-3,6-disulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl oth/un 20°C 0.0 U K1=2.45 1961PEb (70218)3781
****
C10H9NO8 H2L CAS 83785-11-9 (685)
2-Nitro-1,4-di(carboxymethoxy)benzene; O2N.C6H3.(OCH2COOH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl oth/un 30°C ? U K1=3.42 1985TZa (70228)3782
****
C10H9NS HL CAS 10222-10-3 (1029)
2-Methyl-8-mercaptoquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ dis NaClO4 25°C 0.10M C 1987YSb (70250)3783
Method: extraction from 0.10 M NaClO4 solution into CHCl3/HL.
K(Zn+2HL(org)=ZnL2(org)+2H)=3.79.

Zn++ gl non-aq 25°C 100% U K1=8.5 B2=14.9 1984UBa (70251)3784
Medium: DMF, 0.1 M LiClO4. Similar data to reference UB83a

Zn++ EMF non-aq 25°C 100% U K1=8.5 B2=14.90 1983UBa (70252)3785
Medium: DMF, 0.1 M LiClO4

Zn++ cal diox/w 25°C 50% U H 1968GFa (70253)3786
Medium: 50% dioxan, 0.1 M NaClO4. DH(K1)=-33.8 kJ mol-1, DS=100 J K-1 mol-1

Zn++ gl diox/w 25°C 50% U K1=11.1 1966KFb (70254)3787
Medium: 50% dioxan, 0.1 M NaClO4
****
C10H9NS HL CAS 13982-83-7 (1030)
4-Methyl-8-mercaptoquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl non-aq 25°C 100% U K1=8.3 B2=14.5 1984UBa (70270)3788
Medium: DMF, 0.1 M LiClO4. Similar data to reference UB83a

Zn++ EMF non-aq 25°C 100% U K1=8.3 B2=14.50 1983UBa (70271)3789
Medium: DMF, 0.1 M LiClO4
****
C10H9NS HL CAS 15759-04-3 (1031)
6-Methyl-8-mercaptoquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl non-aq 25°C 100% U K1=8.3 B2=14.5 1984UBa (70284)3790
Medium: DMF, 0.1 M LiClO4. Similar data to reference UB83a

Zn++ EMF non-aq 25°C 100% U K1=8.3 B2=14.50 1983UBa (70285)3791
Medium: DMF, 0.1 M LiClO4
****
C10H9NS HL CAS 15759-05-4 (1032)
7-Methyl-8-mercaptoquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl non-aq 25°C 100% U K1=10.8 B2=19.1 1984UBa (70296)3792
Medium: DMF, 0.1 M LiClO4. Similar data to reference UB83a

Zn++ EMF non-aq 25°C 100% U K1=10.8 B2=19.10 1983UBa (70297)3793
Medium: DMF, 0.1 M LiClO4
****
C10H9NS2 HL CAS 32433-56-0 (5691)
5-Thiomethyl-8-mercaptoquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ EMF non-aq 25°C 100% U K1=7.0 B2=12.70 1986UBa (70307)3794
Medium: dimethylformamide, LiClO4

```
**************************************************************************
C10H9NS2              HL                    CAS 91330-90-0  (5693)
7-Thiomethyl-8-mercaptoquinoline;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       EMF non-aq 25°C 100%  U        K1=8.9    B2=15.70  1986UBa (70312)3795
Medium: dimethylformamide, LiClO4
**************************************************************************
C10H9N3                L    Dipyridylamine   CAS 1202-34-2  (2428)
(2,2'-Dipyridyl)amine; C5H4N.NH.C5H4N
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M   K1=3.70   B2= 7.16  1991DAc (70327)3796
Data for ternary complexes with acetohydroxamic acid
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M C    M                 1979FSa (70328)3797
                                        B(ZnL(pyrocatecholate))=14.22
                                        K(ZnL+pyrocatecholate)=10.47
                                        K(Zn(pyrocatecholate)+L)=4.32
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U TIH    K1=3.70   B2=7.16   1976BBe (70329)3798
--------------------------------------------------------------------------
Zn++       EMF KNO3   20°C 0.10M U        K1=3.75   B2=6.95   1971ANa (70330)3799
**************************************************************************
C10H9N3OS             HL                    CAS 60321-26-8  (4671)
2-(2-Thiazolylazo)methylphenol; C3H2NS.N:N.C6H3(CH3)OH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       sp  diox/w 25°C  10%  U T      K1=7.85        1973KSd (70354)3800
Medium: 10% dioxan, 0.1 M KNO3. 15 C: K1=7.87, 35 C: K1=7.83
**************************************************************************
C10H9N3OS             HL                    CAS 54723-30-7  (3924)
3-(2'-Thiazolylazo)-4-methylphenol; CH3.C6H3(OH).N:N.C3H2N2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  alc/w  25°C  50%  U        K1=6.1    B2=11.50  1967NPb (70372)3801
Medium: 50% MeOH, 0.1 M NaClO4
**************************************************************************
C10H9N3O2             HL                    CAS 1631-97-6  (4718)
3-Methyl-4-benzeneazo-isoxazol-5-one;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  75%  U        K1=8.25   B2=13.82  1995UFa (70383)3802
**************************************************************************
C10H9N3O2             HL                    CAS 56634-85-6  (1326)
```

4-Oximino-3-methyl-1-phenyl-2-pyrazolin-5-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	alc/w	20°C	50%	U	T	K1=2.75 B2=5.42	1981SSc (70388)	3803

At 30 C: K1=2.68, B2=5.33

****

C10H9OBrS HL CAS 87112-37-6 (8334)
p-Bromobenzoylthioacetone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=8.08 B2=16.08	1991CAb (70421)	3804

Medium: 75% v/v dioxane/H2O, 0.10 M KCl.

****

C10H9O2Br HL CAS 4023-81-8 (1182)
4-Bromo-1-phenyl-1,3-butanedione; Br.C6H4.CO.CH2.CO.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=9.92 B2=17.53	1976GRa (70429)	3805

****

C10H9O2Cl HL CAS 64743-36-8 (308)
1-(4-Chlorophenyl)butane-1,3-dione; Cl.C6H4.CO.CH2.CO.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		B2=18.04	1976BRd (70444)	3806

****

C10H9O4P H2L CAS 1136-89-6 (1931)
1-Naphthyl-phosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	25°C	0.15M	U		K1=2.01 B(ZnH-1L)=-4.73	1989AKa (70459)	3807

****

C10H10NO4P HL (1932)
8-Quinolyl-methyl-phosphoric acid; (C9H7N)CH2PO4H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	25°C	0.15M	U		K1=1.18 B(ZnH-1L)=-5.53	1989AKa (70520)	3808

****

C10H10N2 L CAS 26628-04-2 (3300)
8-Aminoquinaldine (8-Amino-2-methylquinoline)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

```
Zn++       gl  oth/un 25°C 0.10M U        K1=1.6         1964PCa (70525)3809
**********************************************************************
C10H10N2O              HL                      CAS 70125-17-6  (3906)
2-Aminomethyl-8-hydroxyquinoline;
----------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
----------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U        K1=12.31  B2=23.11  1967SFa (70532)3810
**********************************************************************
C10H10N2O              HL                      CAS 37920-81-3  (3323)
8-Hydroxy-2,4-dimethylquinazoline;
----------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
----------------------------------------------------------------------
Zn++       gl  diox/w 20°C  50%  U        K1=7.77   B2=14.78  1954IRa (70538)3811
Medium: 50% dioxan, 0.3 M NaClO4
**********************************************************************
C10H10N2O2             HL                       (6192)
Benzimidazole-2-propanoic acid; C7H5N2.CH2.CH2.COOH
----------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
----------------------------------------------------------------------
Zn++       gl  alc/w  30°C  50%  U    M   K1=3.40   B2=6.21   1987RGa (70543)3812
                                        K(ZnA+L)=4.41
                                        K(ZnB+L)=3.02
                                        K(Zn(bpy)+L)=3.12
Medium: 50% EtOH, 0.1 M NaClO4. H2A=oxalic acid, H2B=malonic acid
**********************************************************************
C10H10N2O2S             L                      CAS 4939-30-4  (1676)
8-(Methanesulfonamido)quinoline;
----------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
----------------------------------------------------------------------
Zn++       gl  diox/w 30°C  75%  U        K1=10.1   B2=19.7   1984NYa (70547)3813
**********************************************************************
C10H10N2O3S           H2L                      CAS 76045-30-2  (7218)
Desferriferrithiocin,
2-(3-Hydroxypyridin-2-yl)-4-methyl-4,5-dihydrothiazole-4-carboxylic acid;
----------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
----------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=9.28   B2=16.69  1990ARa (70553)3814
**********************************************************************
C10H10N4                L                      CAS 38956-80-8  (8371)
3-Phenyl-6-hydrazinopyridazine;
----------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
----------------------------------------------------------------------
Zn++       gl  NaCl   37°C 0.15M U        K1=3.79        1984AMb (70587)3815
                                       B(ZnH-1L)=-1.56
```

****
C10H10N4O2S HL Sulfadiazine CAS 68-35-9 (1885)
4-Amino-N-(2-pyrimidinyl)benzenesulfonamide; C4H3N2NHSO2C6H4NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 30°C 50% C M 1999MBc (70601)3816
B(Zn(gly)L)=9.02
B(ZnAL)=9.27
B(Zn(met)L)=9.42
B(ZnH-1(gly)L)=-0.04
In 50% v/v EtOH/H2O, 0.10 M NaNO3. B(ZnH-2(gly)L)=-0.04; B(ZnH-1AL)=1.91,
B(ZnH-2AL)=-8.37; B(ZnH-1(met)L)=1.22, B(ZnH-2(met)L)=-6.78. A: Beta-ala
---
Zn++ gl diox/w 30°C 50% U K1=2.76 B2= 5.60 1993MBc (70602)3817
*K(ZnL)=-9.36
*K(ZnL2)=-7.17
*K(Zn(OH)L2)=-9.85
Medium: 50% v/v dioxane/H2O, 0.10 M NaNO3.

Zn++ gl alc/w 25°C 50% U M 1986SKe (70603)3818
K(ZnA+L)=1.84
Medium: 50% v/v EtOH/H2O, 0.1 M NaCl. H3A=nitrolotrientanoic acid
****
C10H10N4O4S2 H2L CAS 78441-02-8 (2880)
N-Methylindol-2,3-dione-3-thiosemicarbazone-5-sulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 37°C 0.15M M K1=5.57 B2=11.36 1982STa (70622)3819
****
C10H10OS HL CAS 13522-48-0 (4722)
3-Mercapto-1-phenylbut-2-en-1-one; C6H5.CO.CH:CH.C(SH).CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 75% U I K1=6.85 B2=13.35 1969LSa (70630)3820
Medium: 75% acetone, 0.1 M NaClO4
In 0.017 NaClO4, 74.5% dioxan: K1=8.23, K2=8.27

Zn++ gl diox/w 30°C 75% U K1=9.48 B2=18.77 1969UTa (70631)3821
Medium: 75% v/v dioxan, 0.01 M Me4NI
****
C10H10OS HL CAS 92897-11-5 (4723)
4-Mercapto-4-phenylbut-3-en-2-one; CH3.CO.CH:C(SH).C6H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 75% U K1=9.57 B2=19.02 1969UTa (70644)3822
Medium: 75% v/v dioxan, 0.01 M Me4NI

****

C10H10O2 HL Benzoylacetone CAS 93-91-4 (197)
1-Phenylbutane-1,3-dione; C6H5.CO.CH2.CO.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=10.18	1977AHb	(70688)3823
Zn++	dis	NaClO4	25°C	1.0M	C	M	K1=4.15 B2= 7.70 K(ZnL2(org)+A(org))=3.76	1977SMe	(70689)3824
Zn++	cal	non-aq	30°C	100%	U	M	K(ZnL2+py)=2.99	1973DGb	(70690)3825
Zn++	gl	diox/w	30°C	75%	U		K1=9.62 B2=17.90	1955HOa	(70691)3826

Method: distribution from 1.0 M NaClO4 into CCl4/HL/tri-octylposphine oxide (A). K(Zn+2HL(org)=ZnL2(org)+2H)=-11.36.

Medium: benzene

****

C10H10O3 HL CAS 16636-62-7 (3298)
2-Hydroxybenzoylacetone; HO.C6H4.CO.CH2.CO.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=8.51 B2=16.10	1955HOa	(70796)3827

****

C10H10O4 H2L CAS 616-75-1 (4700)
Benzylmalonic acid; HOOC.CH(CH2.C6H5).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	EMF	oth/un	?	?	U		K1=2.41	1968KKa	(70817)3828

****

C10H10O6 H2L CAS 5411-14-3 (2394)
1,2-Phenylenedioxodiethanoic acid; C6H4(O.CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	U		K1=2.0	1968SMb	(70840)3829

****

C10H11NOS L (2831)
Acetothioacetanilide; CH3.CO.CH2.CS.NH.C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	diox/w	25°C	50%	U		K1=6.40	1985NBa	(70876)3830

Data also for 4-methoxy, 4-methyl and 4-chloro analogues

****

C10H11NO2 HL (4730)
N-Phenyl-(trans-2-buteno)hydroxamic acid; CH3.CH:CH.CO.N(C6H5).OH

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 35°C  50%  U        K1=7.79   B2=13.90  1970BTc (70921)3831
********************************************************************************
C10H11NO2S             HL                    CAS 42607-21-6  (8331)
2-Phenylthiazolidine-4-carboxylic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   30°C 0.10M U TIH    K1=4.84   B2= 8.86  1983RKb (70925)3832
At I=0.0, K1=4.98, K2=4.13. Data for 25-50 C. DH(K1)=-28.2 kJ mol-1,
DS(K1)=17.4 J K-1 mol-1; DH(K2)=-23.4, DS(K2)=7.9.
********************************************************************************
C10H11NO3              H2L                   CAS 34208-97-4  (4731)
N-(Salicylidene)-alanine; HO.C6H4.CH:N.CH(CH3).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.50M U        K1=8.78   B2=14.67  1971LLa (70933)3833
********************************************************************************
C10H11NO3              H2L                   CAS 34295-85-7  (4732)
N-(Salicylidene)-beta-alanine; HO.C6H4.CH:N.CH2.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.50M U        K1=7.58   B2=14.56  1971LLa (70935)3834
********************************************************************************
C10H11NO3S             H2L    Benzoylcysteine  CAS 60199-84-0  (2580)
N-Benzoyl-2-amino-3-mercaptopropanoic acid;C6H5.CO.NHCH(COOH)CH2SH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.15M U                         1979ZNa (70951)3835
                                    K(Zn+2HL)=9.90
                                    K(ZnHL2+H)=7.14
                                    K(ZnL2+H)=9.42
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.15M U        K1=6.50   B2=12.60  1975ZNa (70952)3836
                                    K3=5.40
********************************************************************************
C10H11NO4              H2L                   CAS 102963-05-0  (3325)
2,2'-Carboxyanilinopropanoic acid; HOOC.C6H4.NH.CH(CH3).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U        K1=2.85        1958ISa (70959)3837
********************************************************************************
C10H11NO4              H2L                   CAS 1137-73-1  (2567)
N-Phenyliminodiethanoic acid; C6H5.N(CH2.COOH)2
```

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       cal KNO3   25°C  0.1M C   H                    1991ANa (70980)3838
DH(K1)=18.0 kJ mol-1
--------------------------------------------------------------------------------
Zn++       cal KNO3   25°C 0.10M U        K1=3.27        1991Aa  (70981)3839
DH(K1)=17.99 kJ mol-1, DS(K1)=121.34 J K-1 mol-1
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.10M U        K1=3.4    B2=5.8    1959SYc (70982)3840
--------------------------------------------------------------------------------
Zn++       gl  KCl    30°C 0.10M U        K1=3.7    B2=6.0    1957TBc (70983)3841
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U        K1=3.22        1955SAa (70984)3842
********************************************************************************
C10H11NO4             H2L    Salicylalanine   CAS 5853-90-7  (6174)
N-Salicylyl-2-aminopropanoic acid; HO.C6H4.CO.NH.CH(CH3)COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  alc/w  25°C  50%  U        K1=3.96   B2= 7.71  1989MSi (71014)3843
                                         B(ZnH-1L)=-5.48
                                         K(Zn+OH+L)=8.52
Medium: 50% v/v EtOH/H2O, 0.2 M NaNO3.
********************************************************************************
C10H11NO5             H3L                      CAS 100844-86-8  (2108)
N-(2-Hydroxyphenyl)iminodiethanoic acid; HO.C6H4.N(CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       EMF oth/un   ?     ?  U        K1=9.77        1968TRc (71032)3844
                                         K(Zn+HL)=3.95
********************************************************************************
C10H11NO5             H3L                      CAS 6386-78-3  (2834)
N-(4-Hydroxyphenyl)-iminodiethanoic acid; HO.C6H4.N(CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=8.81        1980TAa (71052)3845
                                         K(Zn+HL)=6.86
********************************************************************************
C10H11NO5S            H2L                        (3929)
N-(2-Thenoylmethyl)iminodiethanoic acid; C4H3S.CO.CH2.N(CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=7.35   B2=11.61  1965AUa (71057)3846
********************************************************************************
C10H11N3               L                      CAS 49612-00-2  (3301)
2-Hydrazino-4-methylquinoline;
```

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  oth/un 22°C 0.10M U        K1=5.1    B2=9.2    1957FEa (71077)3847
********************************************************************************
C10H11N3O3S            HL                     CAS 723-46-6  (8374)
4-Amino-N-(5-methyl-3-isoxazolyl)-benzenesulfonamide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M M    M   K1=2.04        1995SKa (71083)3848
                                         B(Zn(phen)L)=2.65
********************************************************************************
C10H11O2Cl             HL                     CAS 77103-89-0  (6319)
5-Chloro-2-hydroxybutyrophenone; (HO)(Cl)C6H3.CO.CH2.CH2.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 40°C  75%  U        K1=7.20   B2=13.88  1974PSc (71102)3849
Medium: 75% dioxan/H2O, 0.1 M NaClO4
********************************************************************************
C10H11O4As           H2L                    CAS 51525-18-9  (3907)
As-Phenylarsinodiethanoic acid; C6H5.As(CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   20°C 0.10M U        K1=1.4         1964PIa (71124)3850
********************************************************************************
C10H11O4P            H2L                    CAS 58942-13-5  (7014)
Phenylphosphino-P,P-diethanoic acid, Diphenylphosphinediethanoic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=1.69        1979POa (71135)3851
********************************************************************************
C10H12N2                L    Tolazoline       CAS 59-97-2  (1036)
2-Benzyl-2-imidazoline; C6H5.CH2.C3H5N2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=2.00   B2=3.86   1983LWa (71153)3852
                                         B3=5.64
                                         B4=7.30
                                         B5=8.85
********************************************************************************
C10H12N2O              HL                     CAS 155055-22-4  (8339)
3-(Phenylimino)-2-butanone oxime;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
```

Zn++ gl alc/w 30°C 50% U T K1=8.05 B2=14.73 1993HMd (71162)3853
Medium: 50% v/v MeOH/H2O, 0.1 M NaClO4. Data for 40 and 50 C.
For 2-OH deriv., K1=6.46, for 3-OH, K1=6.54, for 4-OH, K1=6.98.
****
C10H12N2O2 HL CAS 70263-59-1 (8479)
2-(Phenylhydrazono)butanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 30°C 40% C TI K1=3.01 B2= 5.53 1997RRd (71173)3854
Medium: 40% v/v EtOH/H2O, 0.10 M KNO3. Also data for 50-70% v/v EtOH/H2O,
0.1 M KNO3, and for 20-50 C.
****
C10H12N2O3S HL CAS 93100-65-3 (6199)
2-(2-Pyrrolideneamino)benzene sulfonic acid; C4H7N:N.C6H4.HSO3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M U T H K1=6.27 1987RDb (71208)3855
35 C:K=6.61, 45 C:6.83. DH=41.73 kJ mol-1, DS=260 J K-1 mol-1
****
C10H12N2O4 H2L CAS 16598-05-3 (967)
2-Pyridylmethyliminodiethanoic acid; C5H4N.CH2.N(CH2.COOH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaNO3 20°C 0.10M C H K1=10.65 1981ANb (71231)3856
DH(K1)=-13.4 kJ mol-1 DS=158.2 J K-1 mol-1
additional method: exchange equilibria and ion selective electrode
---
Zn++ gl KNO3 25°C 0.10M C K1=8.78 B2=15.61 1975IPa (71232)3857

Zn++ gl KNO3 20°C 0.10M U K1=10.87 1963IFc (71233)3858
****
C10H12N2O4 H2L CAS 91856-13-2 (8436)
DL-N-(4-Aminophenyl)aspartic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaCl 25°C 0.50M C K1=2.03 1984RFb (71288)3859
****
C10H12N2O4 H2L PAA CAS 41203-01-4 (8132)
N-(2-Pyridinylmethyl)-aspartic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M M K1=16.89 2002YKa (71294)3860
For N-6-methyl-2-pyridinylmethyl analogue: K1=7.96.
****
C10H12N2O4 HL (6004)

N-Benzyloxycarbonylglycyl hydroxamic acid; C6H5.CH2.O.CO.NH.CH2.CO.NHOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=4.7	B2=8.6	1987CSb (71298)	3861

****

C10H12N2O5S HL (6278)

2-Benzenesulfonamidosuccinamic acid; C6H5.SO2.NH.CH(CO.NH2).CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	alc/w	25°C	50%	U		K1=6.02	B2=11.87	1978GMc (71311)	3862

****

C10H12N2O8 H2L Orotidine CAS 314-50-1 (6781)

Uridine-6-carboxilic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	70%	M		K1=1.64		1990BSb (71318)	3863

Medium: 70% v/v DMSO/H2O, 0.1 M NaNO3

****

C10H12N4O L CAS 16347-32-3 (2483)

9-(Tetrahydro-2-pyranyl)purine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	1.00M	U		K1=0.5		1983ALa (71321)	3864

****

C10H12N4O4 L Nebularine CAS 550-33-4 (2172)

Purine-9-beta-D-ribofuranoside;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	1.00M	U		K1=0.7		1981LAc (71328)	3865

****

C10H12N4O5 HL Inosine CAS 58-63-9 (2344)

Hypoxanthine-9-beta-D-ribofuranoside;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	M	M			1994SIa (71371)	3866
							K(ZnA+L)=5.7			

A:1-(9-Acridine)-1,4,7,10-tetraazacyclododecane

Zn++	gl	NaClO4	25°C	0.10M	M	M			1993SKe (71372)	3867
							K(ZnA+L)=4.2			

A:1,4,7,10-Tetraazacyclododecane.

Zn++	gl	KNO3	35°C	0.10M	U	M	K1=2.31		1991RRa (71373)	3868
							B(ZnL(Ala))=7.23			

B(ZnLA)=7.07
B(ZnL(norVal))=7.24
B(ZnL(norLeu))=7.45

HA=2-aminobutanoic acid

Zn++ gl NaNO3 37°C 0.15M U K1=2.77 1990CIa (71374)3869

Zn++ gl KNO3 35°C 0.10M U M K1=2.31 1990RRb (71375)3870
B(Zn(Ala)L)=7.23
B(Zn(Phe)L)=7.83
B(Zn(Trp)L)=7.97

Zn++ gl KNO3 25°C 0.10M C T H K1=3.04 1983RRd (71376)3871
Data for 25-45 C. DH(K1)=-2.76 kJ mol-1, DS(K1)=56.1 J K-1 mol-1.

Zn++ gl NaClO4 25°C 1.0M U K1=2.4 1981LVa (71377)3872
K(Zn+HL)=0.7
K(Zn+HL=ZnL+H)=-6.3

Zn++ nmr NaNO3 27°C 0.10M U 1981SHa (71378)3873
K(Zn+HL)=0.31

****

C10H12N4O6 H2L Xanthosine CAS 5968-90-1 (1176)
3,9-Dihydro-9-ribofuranosyl-1H-purine-2,6-dione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl KNO3 35°C 0.10M U M K1=1.43 1991RRa (71446)3874
K(Zn(Ala)+L)=4.82
K(ZnA+L)=4.69
K(Zn(norVal)+L)=4.86
K(Zn(norLeu)+L)=5.14

HA=2-aminobutanoic acid

Zn++ gl KNO3 25°C 0.10M U M 1990RRa (71447)3875
B(ZnHL(His))=9.14
B(ZnHL(histamine))=9.18
B(ZnH2L(catechol))=10.54
K(Zn(Gly)+H+L)=2.86

Zn++ gl KNO3 35°C 0.10M U M K1=1.43 1990RRb (71448)3876
B(Zn(Ala)L)=4.82
B(Zn(Phe)L)=5.31
B(Zn(Trp)L)=5.59

Zn++ gl NaNO3 25°C 0.10M C 1989KTa (71449)3877
K(Zn+H-1L)=1.32

Zn++ gl KNO3 35°C 0.10M C M 1985RRh (71450)3878
K(Zn+HL)=2.21

```
                                        K(Zn(gly)+HL)=2.8
                                        K(Zn+HL+his)=9.05
                                        K(Zn+HL+HA)=10.28
K(Zn+HL+B)=8.46. H2A is catechol, H2B is oxalic acid.
--------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M U    M                  1983RRb (71451)3879
                                        K(Zn+HL)=2.21
                                        K(Zn+2HL)=5.25
                                        K(ZnGly+H2L=ZnHLGly+H)=2.8
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U T H                  1983RRc (71452)3880
                                        K(Zn+2HL)=5.21
DH=-11.7kJ mol-1. At 5 C: K=6.15; 35 C: 5.25; 45 C: 5.53
--------------------------------------------------------------------------------
Zn++       gl  KNO3   45°C 0.10M U    M                  1979RRb (71453)3881
                                        K(Zn+HL+TetraMeen)=5.37
                                        K(Zn+HL+Sulphosalicylate)=2.33
--------------------------------------------------------------------------------
Zn++       gl  KNO3   45°C 0.10M U    M                  1979RRb (71454)3882
                                        K(Zn(bpy)+HL)=2.89
                                        K(Zn(phen)+HL)=2.58
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U T                     1978RRa (71455)3883
                                        K(Zn+HL)=2.26
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C 0.01M U        K1=2.4         1953ALa (71456)3884
********************************************************************************
C10H12N4O6             HL                      CAS 40281-74-1  (3910)
Purin-6-one 9-riboside N(1)-oxide    (Inosine N(1)-oxide)
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       sp  NaClO4 25°C 0.10M U        K1=3.60        1965SIa (71505)3885
********************************************************************************
C10H12N6O4             HL                        (6488)
N6(Threoninocarbonyl)adenine; C5H3N4.NH.CO.NH.CH(COOH).CH(OH).CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M U        K1=4.68   B2=9.78   1990VJa (71517)3886
                                        B(ZnH-1L)=0.24
********************************************************************************
C10H12O2               HL                      CAS 1901-78-6  (4701)
2-Hydroxybutyrophenone; HO.C6H4.CO.CH2.CH2.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   40°C 0.10M U        K1=6.0         1973SPc (71532)3887
********************************************************************************
C10H12O2               HL                      CAS 1946-74-3  (202)
```

3-Isopropyltropolone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ dis NaClO4 25°C 0.10M U K1=6.18 B2=11.56 1962DYa (71555)3888
K3=3.44

Zn++ dis NaClO4 25°C 0.10M U K1=6.18 B2=11.56 1958DYa (71556)3889
B3=15.00

Zn++ gl alc/w 25°C 50% U K1=5.14 B2=8.04 1955PHa (71557)3890
Medium: 50% EtOH

Zn++ gl diox/w 30°C 50% U K1=8.7 B2=16.2 1954BFb (71558)3891

Zn++ gl diox/w 30°C 50% U K1=8.7 B2=15.7 1954BFb (71559)3892
B3=19.3
****
C10H12O2 HL CAS 499-44-5 (3303)
4-Isopropyltropolone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ dis non-aq 25°C 100% C M 1997SNa (71627)3893
K(Zn+2L=ZnL2(org))=13.9
Method: solvent extraction from 0.10 M NaNO3 into CHCl3.
K is for: Zn(aq)+2L(aq)=ZnL2(org). Data for ternary complexes with TOPO.
****
C10H12O2 HL CAS 1821-12-1 (5541)
4-Phenylbutanoic acid; C6H5.CH2.CH2.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C I M K1=1.09 1985BSd (71637)3894
K(Zn(phen)+L)=1.08
In 50% dioxan: K1=2.46, K(Zn(phen)+L)=2.45. In 50% EtOH: K1=1.91, K=2.03
****
C10H12O3 HL CAS 13794-14-4 (8123)
2-Phenoxybutanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl none 25°C 0.15M C T H K1=0.6 1990AMb (71645)3895
Data for 10-45 C
****
C10H13N L CAS 100190-73-6 (302)
2-(Pent-4-enyl)pyridine; C5H4N.CH2.CH2.CH2.CH:CH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---

Zn++ gl KNO3 25°C 0.10M U K1=1.5 1974ILa (71689)3896
****
C10H13NOS HL CAS 99075-17-9 (3339)
2-Mercapto-N-phenylbutyramide (2-Mercaptobutyranilide)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 75% U K1=10.56 B2=19.65 1961MAe (71701)3897
****
C10H13NOS HL CAS 34282-28-5 (3338)
N-(Mercaptoacetyl)-2,6-dimethylaniline; (CH3)2.C6H3.NH.CO.CH2.SH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 75% U K1=10.28 B2=19.58 1961MAe (71707)3898
****
C10H13NO2 HL (4743)
N-Phenyl-n-butyrohydroxamic acid; CH3.CH2.CH2.CO.N(C6H5).OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 50% U K1=7.72 B2=14.11 1972STf (71718)3899
****
C10H13NO3 H2L Salicyl-alanine CAS 57471-91-7 (6944)
2-(N-(2-Hydroxybenzyl))aminopropanoic acid; HO.C6H4.CH2.NH.CH(CH3)COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.10M U K1=8.75 B2=13.24 1975RIa (71734)3900
B(ZnHL2)=22.34
K(Zn+OH+L)=13.05
Data are for L-ligand. For rac-ligand, K1=8.75, B2=13.20,
B(ZnHL2)=22.43, K(Zn+OH+L)=13.05.
****
C10H13NO3S HL (3340)
N-(Mercaptoacetyl)-2,5-dimethoxyaniline; HS.CH2.CO.NH.C6H3(OCH3)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 75% U K1=10.04 B2=18.70 1961MAe (71750)3901
****
C10H13NO5S H2L CAS 93474-55-6 (8748)
N-(Phenylsulfonyl)-L-threonine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 25°C 50% C T H 1987MDe (71777)3902
K(Zn+2HL=ZnL2+2H)=9.04
Medium: 50% v/v EtOH/H2O, 0.2 M NaNO3. Data for 35, 45 C.
Enthalpy and entropy data.

****

C10H13N2O11P H3L Orotidylic acid CAS 68244-58-6 (6665)
Orotidine-5'-monophosphoric acid, uridine-5-carboxylic acid-5-monophosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	M		K1=2.50	1991BSc (71785)	3903

****

C10H13N4O8P H3L IMP CAS 131-99-7 (843)
Inosine-5'-monophosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	cal	R4N.X	25°C	0.10M	C			2002HTb (71840)	3904

Medium: 0.10 M (CH3)4NBr. DH(K1)=-3.7 kJ mol-1, DS(K1)=36 J K-1 mol-1.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C	M	K1=2.57	2001AAa (71841)	3905

Also data for ternary complexes with MOPSO, TAPSO and ACES.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C	T HM		2000RNb (71842)	3906
							K(Zn+HL)=2.97		
							K(Zn+HL+A)=6.90		
							K(Zn+HL+C)=7.00		

Data for 35 and 45 C. HA is DL-ala-ala, HC is DL-ala-phe. DH(ZnHLA)=-21.1
kJ mol-1, DS(ZnHLA)=61 J K-1 mol-1; DH(ZnHLC)=-18.1, DS(ZnHLC)=73.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	35°C	0.10M	U	M		1998RVb (71843)	3907
							K(Zn+H2L=ZnHL+H)=2.83		
							K(Zn+H2L+HA=ZnHLA+2H)=8.01		
							K(Zn+H2L+HC=ZnHLC+2H)=8.53		
							K(Zn+H2L+HD=ZnHLD+2H)=8.72		

HA is alanine, HC is phenylalanine, HD is tryptophan.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	M			1994SMb (71844)	3908
							K(Zn+HL)=2.54		

****

C10H13N4O9P H3L (3930)
Inosine-5'-monophosphoric acid N(1)-oxide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	NaClO4	25°C	0.10M	U			1965SIa (71880)	3909
							K(Zn+HL)=3.83		

****

C10H13N5O4 HL AZT CAS 30516-87-1 (6865)
3'-Azido-3'-deoxythimidine, azidothymidine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	M	M		1994SIa (71899)	3910

```
                                        K(ZnA+L)=7.2
A:1-(9-Acridine)-1,4,7,10-tetraazacyclododecane
-------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M M    M                  1993SKe (71900)3911
                                        K(ZnA+L)=5.6
A:1,4,7,10-Tetraazacyclododecane.
*************************************************************************
C10H13N5O4              L    Adenosine        CAS 58-61-7  (2154)
Adenosine, Adenine-9-beta-D-ribofuranoside;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  NaClO4 20°C 0.10M U        K1=2.51        1995GLa (71927)3912
                                        B(ZuH-2L)=-14.00
-------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 1.00M U        K1=0.2         1981LAc (71928)3913
-------------------------------------------------------------------------
Zn++       nmr NaNO3  27°C 0.10M U        K1=-0.3        1981SHa (71929)3914
-------------------------------------------------------------------------
Zn++       nmr non-aq 36°C 100%  U        K1=0.19        1968WLa (71930)3915
Medium: (CH3)2SO. 21 C, K1=0.01
-------------------------------------------------------------------------
Zn++       sp  oth/un 20°C  var  U        K1=-0.28       1964SBb (71931)3916
Medium: 0.5-3 M Zn(ClO4)2
-------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U        K1=1.51        1957WSa (71932)3917
*************************************************************************
C10H13N5O5              HL    Guanosine        CAS 118-00-3  (1402)
2-Aminopurin-6-one-9-riboside;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C T HM                   1988KRa (71989)3918
                                        K(Zn+HL)=3.13
                                        K(ZnHL+HL)=3.36
Also data at 15, 35 and 45 C. DH(ZnHL)=-11; DS=25. DH(ZnH2L2)=-13.9; DS=18.
Also ternary complexes with bpy, phen and 5-sulfosalicylic acid
-------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C  1.0M U                       1981LVa (71990)3919
                                        K(Zn+HL=ZnHL)=0.8
-------------------------------------------------------------------------
Zn++       nmr NaNO3  27°C 0.10M U                       1981SHa (71991)3920
                                        K(Zn+HL)=0.80
-------------------------------------------------------------------------
Zn++       nmr non-aq 21°C 100%  U                       1973SFa (71992)3921
                                        K(Zn+HL)=0.33
Medium: (CH3)2SO
-------------------------------------------------------------------------
Zn++       nmr non-aq 36°C 100%  U                       1968WLa (71993)3922
                                        K(Zn+HL)=0.25
```

Medium: (CH3)2SO

Zn++ gl oth/un 20°C 0.01M U K1=4.6 1953ALa (71994)3923

****

C10H13N5O5 L CAS 116-92-9 (2174)
Adenosine-N'-oxide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	none	25°C	0.0		U	K1=7.50	1960PEb (72029)	3924

****

C10H14N2 L CAS 57404-42-9 (6274)
cis-2,3-Diamino-tetralin(1,2,3,4-tetrahydronaphthalene);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=4.95 B2=9.69	1974YKa (72048)	3925

****

C10H14N2 L CAS 57404-43-0 (6273)
trans-2,3-Diamino-tetralin(1,2,3,4-tetrahydronaphthalene);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	C		K1=5.39 B2=10.21	1974YKa (72052)	3926

****

C10H14N2O L CAS 7006-13-5 (4746)
N,N-Diethylpicolinamide; C5H4N.CO.N(CH2.CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	oth	oth/un	0°C	?		U	K1=1.10 B2=1.85	1971KAc (72068)	3927

Method: freezing point depression

****

C10H14N2O4S H2L (6995)
2-Amino-4-methylthiazolyl-N,N-di(propanoic acid); CH3.C3H2NS.N(CH2CH2COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.15M		U	K1=3.12	1997NGa (72078)	3928
Zn++	gl	NaNO3	25°C	0.15M		U	K1=0.50	1995NGa (72079)	3929

****

C10H14N2O6 L alpha-Thymidine CAS 4449-43-8 (695)
Thymine-2-desoxyribofuranosyl-5-methyluracil;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	M	M	K(ZnA+L)=7.2	1994SIa (72100)	3930

A:1-(9-Acridine)-1,4,7,10-tetraazacyclododecane

Zn++ gl NaClO4 25°C 0.10M M M 1993SKe (72101)3931
K(ZnA+HL)=5.6
A:1,4,7,10-Tetraazacyclododecane.
****
C10H14N2O7 H3L CAS 95175-15-8 (5705)
2,5-Diazacyclohexanon-1-2(butane-1,4-dioic)-6-ethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M U K1=2.52 1989VZb (72117)3932
****
C10H14N4B- L (7239)
Bis(3,5-dimethylpyrazol-1-yl)borate; ((CH3)2C3H)2BH2-

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ dis non-aq 25°C 100% U 1996KSa (72126)3933
K(Zn+2HL=ZnL2(org)+2H)=2.53
By solvent extraction into CHCl3
****
C10H14N5O6P H2L dAMP CAS 653-63-4 (5782)
Deoxyadenosine-5'-monophosphoric acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ nmr oth/un 25°C 0.20M U M 1985PGa (72140)3934
Keff(ZnA+L)=2.95
Keff(ZnAL+L)=0
A=Tetrakis(4-N-methylpyridyl)porphyrin. pH=6.9
****
C10H14N5O6PS H2L AMPS CAS 19341-57-2 (8152)
Adenosine-5'-monothiophosphoric acid, 5-Thioadenylic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaNO3 25°C 0.10M M K1=2.52 1997SSg (72143)3935
*K(ZnL)=-6.8

Zn++ gl KNO3 25°C 0.10M U K1=2.52 1995SSe (72144)3936
****
C10H14N5O7P H2L AMP-2 CAS 81012-86-4 (2437)
Adenosine-2'-monophosphoric acid, 2-Adenylic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl R4N.X 25°C 0.10M C T K1=2.69 1991SMa (72170)3937
IUPAC evaluation

Zn++ gl NaNO3 25°C 0.10M U K1=2.10 1989MSf (72171)3938

```
-------------------------------------------------------------------------------
Zn++       gl  KNO3   40°C 0.10M U T H    K1=2.60        1967TMf (72172)3939
K1=2.72(0.4 C),2.68(12 C),2.64(25 C). At 25 C: DH(K1)=-5.0 kJ mol-1, DS=33
*******************************************************************************
C10H14N5O7P           H2L    AMP-3            CAS 84-21-9  (2438)
Adenosine-3'-monophosphoric acid, 3-Adenylic acid;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.10M C TI   R K1=2.61        1991SMa (72214)3940
IUPAC evaluation
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M U        K1=1.98        1989MSf (72215)3941
-------------------------------------------------------------------------------
Zn++       gl  KNO3   40°C 0.10M U T H    K1=2.56        1967TMf (72216)3942
K1=2.65(0.4 C),2.62(12 C),2.60(25 C). At 25 C: DH(K1)=-4.6 kJ mol-1, DS=34 J
-------------------------------------------------------------------------------
Zn++       ix  NaClO4 25°C 0.10M U        K1=2.48        1966DTa (72217)3943
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=2.60        1962TMa (72218)3944
-------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U        K1=2.69        1958WSa (72219)3945
*******************************************************************************
C10H14N5O7P           H2L    AMP-5            CAS 18422-05-4  (842)
Adenosine-5'-monophosphoric acid, 5-Adenylic acid;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M M        K1=2.38        2003BSa (72349)3946
                                          K(ZnL+H)=4.63
                                          K(Zn+HL)=0.8
-------------------------------------------------------------------------------
Zn++       cal R4N.X  25°C 0.10M C                       2002HTb (72350)3947
Medium: 0.10 M (CH3)4NBr. DH(K1)=1.0 kJ mol-1, DS(K1)=49 J K-1 mol-1.
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=2.72        2001AOa (72351)3948
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M   K1=2.72        2000ADa (72352)3949
Data for ternary complexes with TAPSO and DIPSO.
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C    M   K1=2.79        2000KHa (72353)3950
                                          K(ZnL+A)=2.86
                                          B(ZnLA)=5.65
H2A=salicylhydroxamic acid.
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C    M   K1=2.79        2000KHb (72354)3951
                                          K(ZnA+L)=2.94
                                          B(ZnAL)=10.44
H2A=N-(2-acetamido)iminodiacetic acid.
-------------------------------------------------------------------------------
```

```
Zn++       gl  NaNO3  25°C 0.10M M        K1=2.38        1996SSd (72355)3952
--------------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.10M C      T K1=2.76        1991SMa (72356)3953
IUPAC evaluation
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M U        K1=2.38        1989MSf (72357)3954
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C        K1=2.38        1988SMb (72358)3955
--------------------------------------------------------------------------------
Zn++       ix  NaClO4 18°C 0.05M U        K1=3.6         1978KOc (72359)3956
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  10%  U    M   K1=2.40        1967SBc (72360)3957
                                          K(Zn(bpy)+L)=2.40
Medium: 10% dioxan, 0.1 M NaClO4
--------------------------------------------------------------------------------
Zn++       gl  KNO3   40°C 0.10M U T H    K1=2.68        1967TMf (72361)3958
K1=2.80(0.4 C),2.76(12 C),2.72(25 C). At 25 C: DH(K1)=-5.0 kJ mol-1, DS=34 J
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=2.23        1964SBa (72362)3959
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=2.72        1962TMa (72363)3960
********************************************************************************
C10H14N5O7P           H2L    dGMP             CAS 902-04-5  (5781)
Deoxyguanosine-5'-monophosphoric acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M U        K1=2.99        1998SSc (72511)3961
--------------------------------------------------------------------------------
Zn++       nmr oth/un 25°C 0.20M U    M                  1985PGa (72512)3962
                                          Keff(ZnA+L)=2.81
                                          Keff(ZnAL+L)=0.60
A=Tetrakis(4-N-methylpyridyl)porphyrin.  pH=6.9
********************************************************************************
C10H14N5O8P           H2L                    CAS 4061-78-3  (3931)
Adenosine-5'-monophosphoric acid N(1)-oxide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U                       1964SBa (72518)3963
                                          K(Zn+HL)=2.20
                                          K(ZnL+H)=6.90
By spectrophotometry: K1=7.79
********************************************************************************
C10H14N5O8P           H3L    GMP-5           CAS 85-32-5  (2947)
Guanosine-5'-monophosphoric acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       cal R4N.X  25°C 0.10M C                       2002HTb (72562)3964
```

Medium: 0.10 M (CH3)4NBr. DH(K1)=-7.1 kJ mol-1, DS(K1)=28 J K-1 mol-1.

Zn++ gl KNO3 25°C 0.10M C M K1=2.65 2001AAa (72563)3965

Also data for ternary complexes with MOPSO, TAPSO and ACES.

Zn++ gl KNO3 25°C 0.10M C T HM 2000RNb (72564)3966

K(Zn+HL)=3.10

K(Zn+HL+A)=7.10

K(Zn+HL+C)=7.18

Data for 35 and 45 C. HA is DL-ala-ala, HC is DL-ala-phe. DH(ZnHLA)=-19.9 kJ mol-1, DS(ZnHLA)=69 J K-1 mol-1; DH(ZnHLC)=-18.1, DS(ZnHLC)=76.

Zn++ gl KNO3 35°C 0.10M U M 1998RVb (72565)3967

K(Zn+H2L=ZnHL+H)=2.97

K(Zn+H2L+HA=ZnHLA+2H)=8.16

K(Zn+H2L+HC=ZnHLC+2H)=8.70

K(Zn+H2L+HD=ZnHLD+2H)=8.88

HA is alanine, HC is phenylalanine, HD is tryptophan.

Zn++ gl NaNO3 25°C 0.10M M 1994SMb (72566)3968

K(Zn+HL)=2.69

Zn++ gl KNO3 35°C 0.10M U M K1=5.29 1990RAc (72567)3969

K(Zn+HL+histamine)=11.21

K(Zn+H2L+Gly)=9.21

K(Zn+HL+His)=11.35

****

C10H15NO L Ephedrine CAS 299-42-3 (1836)

(1-Methylaminoethyl)benzyl alcohol; C6H5.CH(OH)CH(CH3)NHCH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl KNO3 25°C 1.00M C 1976RSd (72639)3970

K(Zn+HL)=5.65

Zn++ gl KCl 25°C .058M U T K1=5.13 B2=9.39 1961SMa (72640)3971

At 0 C: K1=5.68, B2=10.64; 45 C: K1=4.54, B2=8.70

****

C10H15NOS2 L (5423)

2-(2-Pyridyl)-1,3-dithiomethyl-2-propanol; CH3S.CH2.C(OH)(C5H4N).CH2.SCH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl diox/w 25°C 50% U K1=1.23 1981CBa (72652)3972

****

C10H15NO6 H3L (3915)

N-(1'-Carboxycyclopentyl)iminodiethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl KCl 20°C 0.10M U K1=12.31 1966IMa (72666)3973
****
C10H15N2O7P H2L dTMP CAS 3715-64-8 (5784)
Deoxythymidine-5'-monophosphoric acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ nmr oth/un 25°C 0.20M U M 1985PGa (72678)3974
Keff(ZnA+L)=2.46
Keff(ZnAL+L)=0.60
A=Tetrakis(4-N-methylpyridyl)porphyrin. pH=6.9
****
C10H15N2O8P H2L TMP-5 CAS 365-07-1 (2949)
Thymidine-5'-monophosphoric acid, Thymidylic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl R4N.X 25°C 0.10M C T K1=2.46 1991SMa (72688)3975
K(Zn+HL)=2.46
IUPAC evaluation

Zn++ gl NaNO3 25°C 0.10M C 1988MSa (72689)3976
K(Zn+HL)=2.10
****
C10H15N3O8 H3L CAS 43068-75-3 (2463)
Triglycine-N,N-diethanoic acid; (HOOC.CH2)2N.CH2.CO-Gly-Gly-OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C K1=7.63 1974MMb (72715)3977
K(ZnL+H)=3.21
****
C10H15N4O14P3 H5L ITP CAS 35908-31-7 (2148)
Inosine 5'-triphosphoric acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaNO3 25°C 0.10M C 2001SBc (72739)3978
K(Zn+HL)=5.32
K(ZnHL+H)=4.25
K(Zn+H2L)=3.1

Zn++ gl NaClO4 25°C 0.10M U M 1977CSa (72740)3979
K(Zn+HL)=5.02
K(Zn(bpy)+HL)=5.04
B(Zn(bpy)(HL))=10.34

Zn++ sp NaClO4 25°C 0.10M U M 1977CSa (72741)3980
Keff(Zn(bpy)+HL)=2.46, pH 2.5
K(Zn(bpy)L+H)=3.87

Zn++ nmr NaClO4 25°C 0.10M U M 1975SIb (72742)3981
K(ZnL+H)=8.31
K(Zn(OH)L+H)=9.4
K(Zn(bpy)L+H)=8.87
By spectrophotometry, K(ZnL+H)=8.2.

Zn++ gl KNO3 25°C 0.10M U T 1973TRb (72743)3982
K(Zn+HL)=4.57
K(35 C)=4.77, K(45 C)=4.50
****
C10H15N5 L CAS 470701-53-2 (8551)
N-(Imidazole-4-ylmethyl-5-methyl)histamine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M C K1=8.28 B2=11.79 2002JTa (72773)3983
B(ZnHL)=12.75
B(ZnHL2)=19.6
****
C10H15N5O4 HL Gly-Gly-His CAS 93404-95-6 (74)
Glycyl-glycyl-histidine; H2N.CH2.CO.NH.CH2.CO.NH.CH(CH2.C3H3N2).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 37°C 0.15M U K1=3.31 1977APa (72797)3984
B(ZnHL)=10.08
B(Zn2L2)=9.77
B(Zn2H-1L2)=3.31
B(Zn2H-2L2)=-4.49
****
C10H15N5O4 HL Gly-His-Gly CAS 7758-33-0 (716)
Glycyl-histidyl-glycine; NH2.CH2.CO.NH.CH(CH2.C3N2H3)CO.NH.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 37°C 0.15M U K1=2.90 1975APb (72815)3985
B(ZnH-1L)=-2.55
K(ZnH-2L+H)=9.69
****
C10H15N5O4 HL His-Gly-Gly CAS 32999-80-7 (6269)
Histidyl-glycyl-glycine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl none 21°C 0.0 M K1=4.93 B2=9.64 1974YAa (72823)3986
****
C10H15N5O10P2 H3L ADP CAS 20398-34-9 (2181)
Adenosine-5'-diphosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	M		K1=4.28 K(ZnL+H)=4.43 K(Zn+HL)=2.31	2003BSa	(72891)3987
Zn++	gl	KNO3	25°C	0.10M	C	M	K1=4.28 K(ZnL+A)=2.48 B(ZnLA)=6.76 K(ZnL+B)=2.20 B(ZnLB)=6.48 K(ZnL+C)=4.19, B(ZnLC)=8.47, K(ZnL+D)=4.72, B(ZnLD)=9.00. HA=MOPS, HB=POPSO, HC=HEPPSO and HD=AMPSO.	2001AOa	(72892)3988
Zn++	gl	KNO3	25°C	0.10M	C	M	K1=4.28 K(ZnL+A)=6.90 B(ZnLA)=11.18 K(ZnL+B)=3.72 B(ZnLB)=8.33 HA=ACES, HB=MOPSO. Also data for CHES,TAPSO and DIPSO.	2000ADa	(72893)3989
Zn++	gl	NaNO3	25°C	0.10M	C	M	K1=4.18 K(ZnL+A)=4.35 B(ZnLA)=8.53 H2A=salicylhydroxamic acid.	2000KHa	(72894)3990
Zn++	gl	NaNO3	25°C	0.10M	C	M	K1=4.18 K(ZnA+L)=4.38 B(ZnAL)=11.88 H2A=N-(2-acetamido)iminodiacetic acid.	2000KHb	(72895)3991
Zn++	gl	KNO3	25°C	0.10M	U		K1=4.27	1995SBa	(72896)3992
Zn++	gl	R4N.X	25°C	0.10M	C	TI R	K1=4.41 K(Zn+HL)=2.04 IUPAC evaluation. 37 C, 0.15 NaCl: K1=4.18	1991SMa	(72897)3993
Zn++	nmr	oth/un	23°C	0.30M	U	M	Keff(ZnA+L)=3.57 A=Tetrakis(4-N-methylpyridyl)porphyrin. pD=7.0	1985PGa	(72898)3994
Zn++	gl	KNO3	22°C	0.25M	U		K1=5.65	1984GKa	(72899)3995
Zn++	gl	KCl	25°C	0.10M	U	M	B(ZnL(Gly))=8.32	1983MDd	(72900)3996
Zn++	gl	KCl	25°C	0.10M	U		K1=4.17 B(ZnHL)=8.95	1980DMa	(72901)3997
Zn++	gl	KNO3	40°C	0.10M	U T H		K1=4.20	1967TMf	(72902)3998

K(Zn+HL)=1.96
K(ZnOHL+H)=8.18
K(2ZnOHL=Zn2(OH)2L2)=13.20
K(Zn2(OH)2L2+2H=2ZnL)=3.16
K1=4.40(0.4 C),4.35(12 C),4.28(25 C);K(Zn+HL)=2.15(0.4 C),2.11(12 C),2.04(25 C). At 25 C:DH(K1)=-8.4 kJ mol-1,DS=54 J K-1 mol-1; DH(Zn+HL)=-7.9, DS=13

Zn++ gl KNO3 12°C 0.10M U T H 1967TMf (72903)3999
K(ZnOHL+H)=8.83
K((ZnOHL)2+2H)=3.50
K(2ZnOHL=Zn2(OH)2L2)=14.16
At 25 C: DH(ZnOHL+H)=-41.4 kJ mol-1, DS=25 J K-1 mol-1; DH((ZnOHL)2+2H=2ZnL) =-54.3, DS=-71. DH(2ZnOHL=Zn2(OH)2L2)=-21.3, DS=-8

Zn++ gl KNO3 25°C 0.10M U K1=4.28 1962TMa (72904)4000
K(Zn+HL)=2.04
K(ZnL+H2O=Zn(OH)L+H)=-8.51
K(2ZnL+2H2O=(Zn(OH)L)2)=-13.68

Zn++ gl KCl 25°C 0.10M U K1=4.13 1958WSa (72905)4001
K(Zn+HL)=2.34

****

C10H16N2O2 L (7408)
N-(2-Pyridylmethyl)iminodiethanol; C5H4N.CH2.N(CH2CH2.OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=5.25	1986DSa (73032)	4002

****

C10H16N2O3S HL Vitamin H CAS 58-85-5 (410)
D-Biotin (Coenzyme R);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	nmr	NaClO4	27°C	3.00M	U		K1=-1.2	1982SSb (73043)	4003

Medium: D2O. In DMF: K1=0.2

Zn++ gl diox/w 25°C 50% U M K1=2.45 1969SMc (73044)4004
K(Zn(bpy)+L)=2.49
Medium: 50% dioxan, 0.1 M NaClO4. In 0.1 M NaClO4 alone: K1=0.82

****

C10H16N2O4S HL CAS 3376-83-8 (4793)
D-Biotin-DL-sulfoxide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U	M	K1=2.38	1969SMc (73054)	4005
							K(Zn(bpy)+L)=2.34		

Medium: 50% dioxan, 0.1 M NaClO4. Values for d-isomer, for l-isomer K1=2.37, K(Cu(bpy)+L)=2.36

****
C10H16N2O5 H2L gamma-Glu-Pro CAS 53411-63-5 (8143)
Pyrrolidine-2-carboxy-1-(2-amino-5-one-pentanoic acid, Gamma-Glutamyl-proline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=4.87	1989ARa (73057)	4006

****
C10H16N2O5S HL (4794)
D-Biotin sulfone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U	M	K1=2.46	1969SMc (73061)	4007
							K(Zn(bpy)+L)=2.49		

Medium: 50% dioxan, 0.1 M NaClO4
****
C10H16N2O8 H4L EDDS CAS 52759-67-8 (1100)
1,2-Diaminoethane-N,N'-di-1,4-butanedioic acid; (CH2.NH.CH(COOH)CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	cal	KNO3	25°C	0.5M	U			2002LCb (73087)	4008
							DH(K1)=-18.82 kJ mol-1		
							DH(Zn+HL)=+5.78		

for 1.0 M KNO3 DH(K1)=-19.11 DH(Zn+HL)=+6.14
for 1.5 M KNO3 DH(K1)=-19.18 DH(Zn+HL)=+6.32

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	25°C	0.10M	C		K1=13.58	2002OHa (73088)	4009
							K(ZnL+H)=3.67		
							K(ZnHL+2H)=5.9		
							K(Zn(OH)L+H)=11.3		
							K(ZnHL+HL)=5.5		

Ligand is [S,S] isomer.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=12.77	1989VZb (73089)	4010
							K(Zn+HL)=6.68		
							K(Zn+H2L)=2.48		

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	30°C	1.0M	U		K1=8.35	1972TSf (73090)	4011

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	20°C	0.10M	U		K1=13.49	1968MJa (73091)	4012

By paper electrophoresis: K1=13.1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	KNO3	20°C	0.10M	U		K1=12.9	1966MSg (73092)	4013

****
C10H16N2O8 H4L EDTA CAS 60-00-4 (120)
1,2-Diaminoethane-N,N,N',N'-tetraethanoic acid, Sequestric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

```
-------------------------------------------------------------------------------
Zn++       vlt KNO3   25°C 0.10M C        K1=16.52       2001CKb (73398)4014
Method: cyclic voltammetry. Medium: pH 10.
-------------------------------------------------------------------------------
Zn++       cal none   25°C  0.0  C   H                  1990OBa (73399)4015
Medium: pH 8.7. DH(K1)=-14.98 kJ mol-1.
-------------------------------------------------------------------------------
Zn++       vlt KCl    25°C 0.30M U                      1988HPa (73400)4016
                                      K(Zn+HL)=10.27
-------------------------------------------------------------------------------
Zn++       ISE KCl    25°C 1.00M U  I     K1=15.67       1985VGa (73401)4017
                                      K(Zn+HL)=8.19
                                      K(ZnL+H)=2.36
-------------------------------------------------------------------------------
Zn++       cal KNO3   25°C 1.50M U   H                  1985VKa (73402)4018
                                      K(ZnL+OH)=1.88
DH(ZnL+OH)=-20.84 kJ mol-1
-------------------------------------------------------------------------------
Zn++       gl  NaCl   37°C 0.15M C        K1=14.61       1984DMb (73403)4019
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.20M U        K1=16.3        1982AKa (73404)4020
                                      K(ZnL+H)=2.99
-------------------------------------------------------------------------------
Zn++       EMF KCl    20°C 0.10M C        K1=16.1        1981SFa (73405)4021
Method: Pt/H2 electrode.
-------------------------------------------------------------------------------
Zn++       sol KNO3   25°C 1.00M U                      1979JPa (73406)4022
                                      K(ZnL+H)=3.0
                                      K(ZnHL+H)=1.4
-------------------------------------------------------------------------------
Zn++       sol KNO3   25°C 1.00M U                      1979JPb (73407)4023
                                      K(ZnL+H)=2.96
                                      K(ZnHL+H)=1.30
-------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M C      R K1=16.68       1978ANa (73408)4024
                                      K(ZnL+H)=3.0
IUPAC evaluation. K(ZnL+H) Tentative
-------------------------------------------------------------------------------
Zn++       vlt KNO3   20°C 0.10M U        K1=16.66       1978NLb (73409)4025
-------------------------------------------------------------------------------
Zn++       dis none   25°C  0.0  U        K1=16.4        1977MFb (73410)4026
Measured by liquid chromatography on a chelating resin
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 3.00M C        K1=14.87       1976CWa (73411)4027
                                      B(ZnHL)=17.97
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.01M C  I     K1=13.3        1976MCa (73412)4028
-------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.10M U   H    K1=16.3        1974DTa (73413)4029
DH(K1)=-23.4 kJ mol-1
```

```
-------------------------------------------------------------------------------
Zn++       oth NaClO4 25°C  1.0M U                      1973HHb (73414)4030
                                        K(CoLCl+Zn)=0.6
-------------------------------------------------------------------------------
Zn++       ISE KNO3   25°C 0.10M U        K1=16.5       1973HRa (73415)4031
-------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 1.50M U    M   K1=16.50      1970FDa (73416)4032
                                        B(ZnL(py))=16.72
                                        B(ZnL(NH3))=17.38
                                        B(ZnL(thiourea))=17.05
                                        B(ZnL(SCN))=16.57
B(ZnL(S2O3))=17.30
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=16.24      1969BNa (73417)4033
                                        K(ZnL+H)=3.0
                                        K(Zn+HL)=9.0
-------------------------------------------------------------------------------
Zn++       oth oth/un 42°C    ?  U T H    K1=14.80      1968LPa (73418)4034
Method: ultrasonic. K1=15.52(32 C). DH(K1)=105 (?) kJ mol-1,DS=483? J K-1m-1
-------------------------------------------------------------------------------
Zn++       oth KNO3   20°C 0.10M U        K1=17.5       1965JMb (73419)4035
Method: electrophoresis
-------------------------------------------------------------------------------
Zn++       nmr oth/un 36°C    ?  U                      1965KUa (73420)4036
                                        K(Zn(OH)+L)=2.2
                                        K(ZnL+OH)=2.0
-------------------------------------------------------------------------------
Zn++       vlt KNO3   25°C 0.20M U        K1=15.94      1965OGa (73421)4037
-------------------------------------------------------------------------------
Zn++       cal KNO3   25°C 0.10M U   H                  1965WHa (73422)4038
DH(K1)=-23.4 kJ mol-1, DS=238 J K-1 mol-1
-------------------------------------------------------------------------------
Zn++       gl  KNO3   20°C 0.10M U        K1=16.26      1964ANa (73423)4039
                                        K(Zn+HL)=9.0
-------------------------------------------------------------------------------
Zn++       cal KNO3   20°C 0.10M U   H                  1963ANf (73424)4040
DH(K1)=-20.3 kJ mol-1, DS=247 J K-1 mol-1
-------------------------------------------------------------------------------
Zn++       EMF NaNO3  22°C 0.10M U      T K1=16.69      1957SAb (73425)4041
-------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C 0.17M U   H                  1956CSb (73426)4042
DH(K1)=-23.5 kJ mol-1, DS=236 J K-1 mol-1; DH(ZnL+OH)=13
-------------------------------------------------------------------------------
Zn++       EMF oth/un 25°C  0.0  U   H                  1956MAa (73427)4043
Method: H electrode. DS(K1)=230 J K-1 mol-1
-------------------------------------------------------------------------------
Zn++       EMF NaClO4 25°C 0.10M U        K1=16.4       1956SRb (73428)4044
-------------------------------------------------------------------------------
Zn++       cal oth/un 25°C 0.05M U   H                  1954CHa (73429)4045
Medium: Zn(NO3)2.  DH(K1)=-18.8 kJ mol-1, DS=230 J K-1 mol-1
```

Zn++ gl KCl 20°C 0.10M U K1=16.26 1954SGa (73430)4046
By polarography, 0.1 M KNO3, K1=16.50

Zn++ sp KNO3 30°C 0.10M U K1=15.3 1953HMa (73431)4047
****
C10H16N2O8S2 H4L CAS 20206-12-1 (996)
2,9-Diamino-5,6-dicarboxy-4,7-dithiadecanedioic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M U B2=22.23 1978MJa (74364)4048
****
C10H16N2O9 H4L CAS 616-90-0 (2615)
Bis-(2-aminoethylether)-N,N'di(1,3-propanedioic acid); ((HOOC)2CH.NH.CH2.CH2)2O

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ EMF KNO3 25°C 0.10M U K1=10.53 1979KBe (74370)4049
****
C10H16N2O11P2 H4L CAS 491-97-4 (7674)
Thymidine-5'-diphosphoric acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaNO3 25°C 0.10M M 1999SSa (74383)4050
K(Zn+HL)=4.15
****
C10H16N5O13P3 H4L ATP CAS 56-65-5 (403)
Adenosine-5'-triphosphoric acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C M K1=4.85 2001AOa (74540)4051
K(ZnL+A)=2.09
B(ZnLA)=6.94
K(ZnL+B)=2.30
B(ZnLB)=7.15
K(ZnL+C)=3.30, B(ZnLC)=8.15, K(ZnL+D)=3.77, B(ZnLD)=8.62, K(ZnL+E)=2.86,
B(ZnLE)=7.71. HA=PIPES, HB=MOPS, HC=POPSO, HD=HEPPSO and HE=AMPSO.

Zn++ gl KNO3 25°C 0.10M C M K1=4.85 2000ADa (74541)4052
K(ZnL+A)=3.49
B(ZnLA)=8.34
K(ZnL+B)=3.73
B(ZnLB)=8.58
K(ZnL+C)=3.20, B(ZnLC)=8.05, K(ZnL+D)=3.40, B(ZnLD)=8.25.
HA=ACES, HB=MOPSO, HC=CHES, HD=TAPSO. Also data for DIPSO.

Zn++ gl NaNO3 25°C 0.10M C M K1=4.90 2000KHa (74542)4053

```
                                        K(ZnL+A)=6.19
                                        B(ZnLA)=11.09
H2A=salicylhydroxamic acid.
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C    M   K1=4.90        2000KHb (74543)4054
                                        K(ZnA+L)=5.26
                                        B(ZnAL)=12.67
H2A=N-(2-acetamido)iminodiacetic acid.
-------------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.10M C TIH  R K1=5.16        1991SMa (74544)4055
                                        K(Zn+HL)=2.69
IUPAC evaluation. DH(K1)=16.3 kJ mol-1. 37 C,I=0.15 M:K1=4.83,K(ZnL+HL)=2.61
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C        K1=5.16        1987STb (74545)4056
                                        K(Zn+HL)=2.86
                                        K(ZnL+H)=4.17
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U  I M   K1=5.81   B2=8.27   1986CCc (74546)4057
                                        B(ZnHL)=10.25
                                        B(ZnH2L)=13.86
                                        B(Zn2L)=8.26
                                        B(Zn2HL)=11.98
Ternary complexes with 2,2'-dipyridylamine. In 0.1 M KNO3, K1=5.44, B2=7.52,
B(ZnHL)=9.75, B(ZnH2L)=13.09, B(Zn2L)=7.22, B(Zn2H-1L)=1.28.
-------------------------------------------------------------------------------
Zn++       ix  oth/un 25°C 0.06M C                        1985JEa (74547)4058
                                        K1eff=2.94
Medium: 0.06 M N-tris(hydroxymethyl)methyl-2-aminoethane sulfonic acid
buffer, pH 7.45. In 0.06 M imidazole/HCl buffer, pH 7.45, K1eff=2.82.
-------------------------------------------------------------------------------
Zn++       nmr R4N.X  22°C 0.10M U                        1985PHb (74548)4059
                                        K(Zn+H3L)+2.78
-------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U    M   K1=4.81        1984DMc (74549)4060
-------------------------------------------------------------------------------
Zn++       gl  KNO3   22°C 0.25M U        K1=5.65        1984GKa (74550)4061
-------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C    M                  1984KDb (74551)4062
                                        B(ZnL(DOPA))=14.35
                                        B(ZnHL(DOPA)=23.0
                                        B(ZnHL(Dopamine))=23.6
                                        B(ZnHL(Adrenaline))=23.2
B(ZnHL(Noradrenaline))=23.4, H3DOPA=3,4-dihydroxyphenylalanine
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C   HM   K1=5.23   B2=7.12   1983ACb (74552)4063
                                        B(ZnHL)=9.22
                                        B(Zn2L)=7.08
                                        B(ZnL(Ala))=9.18
                                        B(ZnL(Trp))=9.90
DH(K1)=16.3; DH(B2)=5.0; DH(ZnHL)=3.8; DH(Zn2L)=28.8 kJ mol-1.
```

DH(ZnL(Ala))=16.7; DH(ZnL(Trp))=-24.7 kJ mol-1

Zn++	gl	KCl	25°C	0.10M	U			1983MDd	(74553)4064
						B(ZnL(Gly))=8.89			

Zn++	gl	KCl	25°C	0.10M	U	K1=4.92		1980DMa	(74554)4065
						B(ZnHL)=9.66			

Zn++	gl	KNO3	35°C	0.10M	C	M	K1=5.25	1979MTb	(74555)4066
							K(Zn+HL)=2.68		

Zn++	ix	NaClO4	18°C	0.05M	U		K1=7.3	1978KOc	(74556)4067

Zn++	gl	NaCl	25°C	0.12M	U	M	K1=4.08	1978RMc	(74557)4068
							K(ZnL+DOPA)=7.30		

H3DOPA=3,4-dihydroxyphenylalanine

Zn++	sp	NaClO4	25°C	0.10M	U	M		1977CSa	(74558)4069
							K(Zn(bpy)+L)=5.31		

Zn++	gl	NaClO4	25°C	0.10M	U	M	K1=5.21	1977CSa	(74559)4070
							K(Zn(bpy)+L)=5.26		

Zn++	gl	NaClO4	25°C	0.10M	C	M		1977SIc	(74560)4071
							B(Zn(bpy)L)=10.56		
							K(Zn(bpy)+L)=5.26		

Zn++	gl	KNO3	25°C	1.00M	C	M	K1=3.19	1976RSd	(74561)4072
							K(ZnL+HA)=4.90		
							K(ZnL+B)=4.70		

A=norephedrine, B=amphetamine

Zn++	kin	NaClO4	50°C	0.10M	U			1976SAb	(74562)4073
							B(Zn2L)=3.0		

Zn++	gl	NaClO4	25°C	0.10M	U	M		1976SNa	(74563)4074
							K(ZnL+Ala)=3.71		
							K(Zn(Ala)+L)=4.41		

Zn++	nmr	NaClO4	25°C	0.10M	U			1975SIb	(74564)4075
							K(Zn(OH)L+H)=8.87		

Zn++	gl	NaClO4	25°C	0.10M	U	M	K1=5.21	1967SBc	(74565)4076
							K(Zn(bpy)+L)=5.26		

Zn++	gl	R4N.X	30°C	0.10M	U		K1=5.52	1966PSa	(74566)4077
							K(Zn+HL)=2.91		

Medium: Me4NBr

Zn++	gl	KNO3	40°C	0.10M	U	T H	K1=4.71	1966TMb	(74567)4078

```
                                        K(Zn+HL)=2.58
K1=5.00(0.4 C),4.88(12 C),4.85(25 C); K=2.81(0.4 C),2.73(12 C),2.67(25 C).
At 25 C:DH(K1)=-11.3 kJ mol-1, DS=54.J K-1 mol-1; DH(Zn+HL)=-10.0, DS=17
--------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U        K1=4.75   B2=6.16   1962HBa (74568)4079
                                        K(Zn+HL)=2.78
                                        K(Zn+H2L)=2.09
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=4.85        1962TMb (74569)4080
                                        K(Zn+HL)=2.67
--------------------------------------------------------------------------
Zn++       gl  KCl    22°C 0.10M U        K1=4.80        1961BRb (74570)4081
                                        K(Zn(OH)L+H)=8.5
--------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U        K1=4.76        1958WSa (74571)4082
                                        K(Zn+HL)=2.75
**************************************************************************
C10H16N5O14P3         H5L    GTP              CAS 86-01-1  (404)
Guanosine-5'-triphosphoric acid;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C                         2001SBc (74861)4083
                                        K(Zn+HL)=5.52
                                        K(ZnHL+H)=4.45
                                        K(Zn+H2L)=3.45
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M C    M                    1977SIc (74862)4084
                                        K(Zn+HL)=4.96
                                        K(Zn(bpy)+HL)=5.03
                                        B(Zn(HL)(bpy))=10.33
--------------------------------------------------------------------------
Zn++       nmr NaClO4 25°C 0.10M U    M                    1975SIb (74863)4085
                                        K(ZnL+H)=8.39
                                        K(Zn(OH)L+H)=9.48
                                        K(Zn(bpy)L+H)=9.20
By spectrophotometry, K(ZnL+H)=8.3.
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U T                       1973TRb (74864)4086
                                        K(Zn+HL)=5.72
K1(35 C)=5.76, K1(45 C)=5.64
**************************************************************************
C10H16N6                L                     CAS 53596-58-0  (3898)
N,N'-Bis(4'-(5')-imidazolylmethyl)-1,2-diaminoethane;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U        K1=10.39       1968GRa (74894)4087
**************************************************************************
C10H16N6OS              L                     CAS 54237-72-8  (5996)
```

Cimetidine sulfoxide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	37°C	0.15M	C		K1=1.867 B(ZnH-1L)=-5.439	1986FBa (74899)	4088

****

C10H16N6S L Cimetidine CAS 51481-61-9 (5716)
Cimetidine; CH3.C3H2N2.CH2.S.CH2.CH2.NH.C(:NCN)NH.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	37°C	0.15M	C		B2=5.092	1984ABg (74911)	4089

****

C10H16O4 H2L Camphoric acid CAS 124-83-4 (4708)
Camphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	NaClO4	28°C	0.20M	U		K1=3.06	1970RJa (74928)	4090

By glass electrode: K1=3.0

****

C10H16O8P2 H4L (6907)
1,2-Diphosphinoethane-P,P,P'P'-tetraethanoic acid;
(HOOC.CH2)2P.CH2.CH2.P(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	C		K1=3.69 B(ZnHL)=8.54 B(ZnH2L)=12.65	1992PPb (74935)	4091

Additional method: Zn(Hg) electrode

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	C		K1=3.69 B(ZnHL)=8.54 B(ZnH2L)=12.65	1982PPc (74936)	4092

****

C10H17NO4 H2L CAS 2848-06-8 (3916)
N-(Cyclohexyl)iminodiethanoic acid; C6H11.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.50M	U		K1=7.42 B2=12.73	1967FMb (74966)	4093
Zn++	gl	KNO3	20°C	0.10M	U		K1=7.60	1964PIa (74967)	4094

****

C10H17NO5 H2L CAS 6243-06-7 (3326)
N-(2-Hydroxycyclohexyl)iminodiethanoic acid; HO.C6H10.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

```
------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U        K1=9.19        1955ASb (74982)4095
******************************************************************************
C10H17NO5             H2L                        (3917)
N-(Tetrahydropyran-2-ylmethyl)iminodiethanoic acid;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  KNO3   20°C 0.10M U        K1=9.06   B2=13.58  1963IFa (74994)4096
                                         K(Zn+HL)=2.75
******************************************************************************
C10H17NO8S             HL                         (1735)
2-(5-Carboxy-1,2,3,4-tetrahydroxypentyl)4-carboxythiazolidine,
Galactocarboxythiazolidine;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M C        K1=4.08   B2=5.83   1992GNa (75010)4097
                                         B(ZnHL)=7.32
                                         B(ZnH-1L)=-3.75
                                         B(ZnH-2L)=-12.51
                                         B(ZnH-1L2)=-1.56
B(ZnH-2L2)=-10.75
******************************************************************************
C10H17N2O14P3         H3L    TTP              CAS 365-08-2  (402)
Thymidine-5'-triphosphoric acid;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  NaCl   25°C 0.10M C      R K1=5.1         1991SMa (75039)4098
                                         K(Zn+HL)=5.1
IUPAC evaluation
------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C                       1987STb (75040)4099
                                         K(Zn+HL)=5.03
------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M C    M                 1977SIc (75041)4100
                                         K(Zn+HL)=4.89
                                         K(Zn(bpy)+HL)=5.18
                                         B(Zn(bpy)(HL))=10.48
------------------------------------------------------------------------------
Zn++       nmr NaClO4 25°C 0.10M U    M                 1975SIb (75042)4101
                                         K(ZnL+H)=8.35
                                         K(Zn(OH)L+H)=9.2
                                         K(Zn(bpy)L+H)=9.06
By spectrophotometry, K(ZnL+H)=8.7.
******************************************************************************
C10H17N3O6S           H3L    Glutathione      CAS 70-18-8  (333)
Glutamyl-cysteinyl-glycine;
------------------------------------------------------------------------------
```

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       vlt oth/un 20°C 0.01M C        K1=4.78   B2= 8.66  2001DAa (75091)4102
Medium: 0.01 M acetate buffer.  Method: differential pulse polarography.
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U TIH    K1=7.002       2001SGd (75092)4103
Data for 0.05-0.2 M NaClO4 and 15-45 C. DH(K1)=-35.7 kJ mol-1, DS(K1)=-220
J K-1 mol-1. At I=0, K1=7.400. Also data for MeOH/H2O, EtOH/H2O, DMF/H2O.
--------------------------------------------------------------------------
Zn++       gl  KNO3   30°C 0.10M U T  M                  1995SSc (75093)4104
                                       K(ZnA+L)=5.89
                                       K(ZnB+L)=6.89
                                       K(ZnC+L)=6.00
                                       K(ZnD+L)=7.50
Also data for 40 and 50 C. HA is anthranilic acid, H2B is ascorbic acid,
HC is nicotinic acid, HD is sulfanilic acid.
--------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 3.00M C        K1=8.57   B2=13.59  1976CWa (75094)4105
                                       B(ZnHL)=14.76
                                       B(ZnHL2)=23.27
                                       B(ZnH2L2)=30.62
                                       B(ZnH-1L)=-0.07
B(ZnH-1L2)=3.63
--------------------------------------------------------------------------
Zn++       gl  NaClO4 37°C 0.15M U    M   K1=7.98   B2=12.48  1976TWa (75095)4106
                                       B(ZnHL)=14.11
                                       B(ZnHL2)=21.36
                                       B(Zn(HL)2)=28.08
                                       B(ZnH-1L)=-0.71,B(ZnH-1L2)=3.1
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.16M U        K1=5.1         1959MEa (75096)4107
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.15M U        K1=8.30        1955LMa (75097)4108
**************************************************************************
C10H17N6O12P3         H4L                     CAS 4209-30-7  (4795)
Adenyl-5'-yl-imidodiphosphoric acid; adenosine-O.PO(OH).O.PO(OH).NH.PO(OH)2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  R4N.X  20°C 0.10M M T H    K1=5.87        1976PSe (75165)4109
                                       K(Zn+HL)=3.10
Medium: 0.1 M Me4NClO4. At 0 C: K1=6.22, K(Zn+HL)=3.18. DH(K1)=-26 kJ mol-1,
DS=7 J K-1 mol-1; DH(Zn+HL)=-6, DS=11
**************************************************************************
C10H18N2O3             HL                      CAS 533-48-2  (411)
D/L-Desthiobiotin, 5-Methyl-2-oxo-4-imidazoline-caproic acid;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U    M                  1969SMc (75178)4110
```

K(Zn(bpy)+L)=2.48

Medium: 50% dioxan, 0.1 M NaClO4

****

C10H18N2O4 H2L CAS 124125-60-6 (914)

1,5-Diazacyclooctane-N,N'-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	U		K1=11.07	1990HNa (75196)	4111
Zn++	gl	NaClO4	25°C	0.10M	U		K1=11.27	1975BIb (75197)	4112

****

C10H18N2O4 H2L CAS 96287-33-1 (8141)

Pyrrolidine-2-carboxy-1-(2-aminopentanoic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=7.3	1989ARa (75206)	4113

****

C10H18N2O4S H2L (6638)

1-Thia-4,7-diazacyclononane-N,N'-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=14.03	1993WLa (75211)	4114

****

C10H18N2O5 H2L (5608)

1-Oxa-4,7-diazacyclononane-N,N'-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=12.53	1990CCa (75225)	4115

****

C10H18N2O5 H2L (6634)

N,N-Diethylacetamidoiminodiethanoic acid; (C2H5)2N.CO.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.50M	U		K1=8.11 B2=11.20 B(ZnH-1L)=-1.67	1992GLa (75245)	4116

****

C10H18N2O7 H3L HEDTA CAS 150-39-0 (392)

N-(Hydroxyethyl)diaminoethane-N,N',N'-triethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U	H	K1=14.42	1969BNa (75299)	4117
Zn++	cal	KNO3	25°C	0.10M	U	H		1965WHa (75300)	4118

DH(K1)=-35.1 kJ mol-1, DS=159 J K-1 mol-1

Zn++	EMF	KNO3	25°C	0.10M	U	K1=14.5 1960HRa (75301)4119
Zn++	gl	KCl	30°C	0.10M	U	K1=14.5 1955CMa (75302)4120

C10H18N4O6 H2L (4504)
Hexanoic acid bis(3-hydroxycarbamoyl-methyl)amide; HONHCOCH2NHCO(CH2)4CONHCH2CONHOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Zn++	gl	KCl	25°C	0.20M	C		K1=7.73 B(Zn2L3)=22.01 B(ZnHL)=13.98	1999FEa (75564)4121

C10H18N4O6S2 H2L CAS 7729-20-6 (6021)
Cysteinylglycine disulfide; (-S.CH2.CH(NH2)CO.NH.CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Zn++	gl	KCl	25°C	0.20M	C		K1=3.56 B(ZnHL)=9.61	1988VSb (75574)4122

C10H18N4O8 H4L CAS 35048-92-5 (4751)
Ethylenedinitrilo-N,N'-diacetohydroxamic-N,N'-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K(Zn+H2L)=9.60 K(ZnL+H)=7.47 K(ZnHL+H)=6.35	1971MMe (75580)4123

C10H18O2 HL CAS 73910-38-6 (4707)
Isobutyryl pivaloyl methane; (CH3)2.CH.CO.CH2.CO.C(CH3)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=10.08 B2=19.35	1972UDa (75595)4124

Medium: 75% v/v dioxan, 0.01 M Me4NClO4

C10H18O8 H2L CAS 32775-08-9 (240)
1,12-Dicarboxy-2,5,8,11-tetraoxadodecane; (HOOC.CH2.O.CH2.CH2.O.CH2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=2.18	1975MTc (75614)4125

C10H19NO4 H2L (3328)
N-(3,3-Dimethylbutyl)iminodiethanoic acid; (CH3)3C.CH2.CH2.N(CH2.COOH)2

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U        K1=7.92   B2=14.15  1955SAa (75633)4126
*************************************************************************
C10H19N3O4            H2L                        (8095)
1,4,7-Triazacyclononane-1,4-diethanoic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KCl    25°C  1.0M U        K1=17.3        2000LKc (75652)4127
*************************************************************************
C10H19N3O4             HL    Leu-Gly-Gly      CAS 1187-50-4  (1230)
Leucyl-glycyl-glycine; H2N.CH(CH2.CH(CH3)2).CO.NH.CH2.CO.NH.CH2.COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.01M U        K1=2.50   B2=5.39   1959DLb (75681)4128
-------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.01M U        K1=1.8         1954PEa (75682)4129
*************************************************************************
C10H19N3O5            H2L                      CAS 6366-86-5  (8573)
N-6-L-alpha-Aspartyl-L-lysine;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C                        2002KVa (75703)4130
                                      B(ZnHL)=13.85
                                      B(Zn2L2)=15.30
                                      B(ZnH-1L)=-2.59
*************************************************************************
C10H19N3O5            H2L    2,3-DIHA         CAS 709640-93-7  (9156)
N-Hydroxy-N'-[4-(hydroxymethylamino)-4-oxobutyl]-N-methyl-butanediamide;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.20M C        K1=7.71        2004FBa (75707)4131
                                      B(ZnHL)=13.95
                                      B(Zn2L3)=21.7
*************************************************************************
C10H20N2               L                      CAS 42121-74-4  (6275)
2(e),3(e)-Diamino-trans-decaline(decahydronaphthalene);
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=6.57   B2=12.30  1974YKa (75724)4132
*************************************************************************
C10H20N2O3             HL    NIBL               (6057)
N-(Isobutyroyl)-lysine; (CH3)2CH.CO.NH.(CH2)4.CH(NH2)COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
```

```
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M C        K1=4.89   B2=8.29   1987LMa (75747)4133
--------------------------------------------------------------------------------
Zn++       cal NaClO4 25°C 0.10M C   H                   1987LMc (75748)4134
DH(K1)=-11.29 kJ mol-1, DS(K1)=56.3 J K-1 mol-1.
DH(K2)=-9.61, DS(K2)=33.2.
********************************************************************************
C10H20N2O4            H2L    EDBA             CAS 312538-62-8  (8368)
2,2'-(1,2-Ethandiyldiimino)-bis(butanoic acid);
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaCl   37°C 0.15M C        K1=9.626       1981CMc (75769)4135
                                         B(ZnH-1L)=0.30
                                         B(ZnH-2L)=-10.6
********************************************************************************
C10H20N2O4            H2L                   CAS 5578-84-7  (5914)
N,N-Dihydroxydecanediamide; HN(OH).CO.(CH2)8.CO.NH(OH)
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C        K1=8.80        1989EHa (75793)4136
********************************************************************************
C10H20N2O4S2          H4L    EDDASS            (6912)
N,N'-Bis(2-mercaptoethyl)diaminoethane-N,N'-diethanoic acid;
(-CH2.N(CH2.CH2.SH)CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C        K1=22.13       1995SMb (75809)4137
                                         K(ZnL+H)=6.12
                                         K(ZnHL+H)=2.65
                                         K(ZnL=Zn(OH)L+H)=-11.4
********************************************************************************
C10H20N2O4S2          H2L                   CAS 20902-45-8  (5411)
Penicillamine disulfide, 3,3'-Dithiobis(2-amino-3-methylbutanoic acid);
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C                       1988VSb (75824)4138
                                         B(ZnHL)=12.22
                                         B(Zn2L2)=14.04
********************************************************************************
C10H20N2O6            H2L                     (7208)
1,2-Diaminoethane-N,N'-bis(3-hydroxy-2-butanoic acid)); (CH2NHCH(COOH)CH(OH)CH3)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   20°C 0.10M U        K1=9.85        1970DKa (75829)4139
By spectrophotometry: K1=10.02 in 0.1 M NaClO4
```

****
C10H20N2O6 H2L CAS 96817-35-5 (4755)
1,2-Diaminoethane-N,N'-bis(4-hydroxy-2-butanoic acid);

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp oth/un 20°C 0.10M U K1=9.85 1972DKa (75840)4140
****
C10H20N4O4 HL (8572)
Glycyl-lysyl-epsilon-glycine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.20M C K1=4.74 B2= 7.00 2002KVa (75891)4141
B(ZnHL)=11.42
****
C10H20O5 L 15-Crown-5 CAS 33100-27-5 (576)
1,4,7,10,13-Pentaoxacyclopentadecane; cyclo(-(O.CH2.CH2)5-)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ con mixed 25°C 90% C K1=1.94 2003ISa (75927)4142
Medium: 90% v/v DMSO/H2O.

Zn++ con alc/w 25°C 40% C K1=1.82 2001ISa (75928)4143
Medium: 40% v/v EtOH/H2O.

Zn++ nmr non-aq 27°C 100% C K1=3.82 2000SMg (75929)4144
Medium: acetonitrile. Method: competitive 7Li nmr technique.

Zn++ vlt alc/w 25°C 100% C K1=2.29 1987CBd (75930)4145
Medium: methanol, 0.10 M Et4NI or Bu4NClO4. Method: polarography.
****
C10H21NO3 L (6568)
Trans-1-(bis(2-hydroxyethyl)amino)-2-hydroxycyclohexane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaNO3 25°C 0.10M C K1=2.78 1991DCa (76171)4146
****
C10H21NO4 L CAS 66943-05-3 (5818)
1-Aza-4,7,10,13-tetraoxacyclopentadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ EMF alc/w 25°C 95% U K1=4.1 1993BDd (76177)4147
Medium: 95% v/v MeOH/H2O, 0.1 M Et4NClO4
****
C10H21N11 L (7006)
1,7-Di(2-(5-tetraazolyl)ethyl)-1,4,7-triazaheptane;

```
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  NaNO3  20°C 0.10M U        K1=17.52       1981ESa (76208)4148
******************************************************************************
C10H22N2OS2             L                     CAS 40236-04-2  (2343)
1-Oxa-4,13-diaza-7,10-dithiacyclopentadecane;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U   H    K1=5.09        1979ASb (76228)4149
Also DH values
------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=4.43   B2=7.91   1977LAa (76229)4150
------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=5.09        1975ASc (76230)4151
******************************************************************************
C10H22N2OS2             L                     CAS 40236-30-4  (5395)
1-Oxa-4,13-dithia-7,10-diazacyclopentadecane;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U   H    K1=4.43        1979ASb (76248)4152
                                       B(ZnHL)=7.91
Also DH values
******************************************************************************
C10H22N2O3              L                     CAS 60350-17-6  (2471)
1,4,7-Trioxa-10,13-diazacyclopentadecane;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.10M C        K1=5.04        1983LCa (76257)4153
******************************************************************************
C10H22N2O3              L    Cryptand 2,1     CAS 31249-95-3  (835)
4,7,13-Trioxa-1,10-diazacyclopentadecane (Trioxa(2,1)cryptand);
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.05M C        K1=4.9         1997BCc (76275)4154
Medium: 0.05 M Me4NClO4
------------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.10M C        K1=5.34        1983LCa (76276)4155
------------------------------------------------------------------------------
Zn++       gl  alc/w  25°C 100%  C        K1=7.42        1979SAa (76277)4156
Medium: MeOH
------------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.10M C        K1=5.19        1977ASc (76278)4157
******************************************************************************
C10H22N4                L                     CAS 82413-08-9  (6153)
1,4,7,10-Tetraaza-bicyclo[8.2.2]tetradecane;
```

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M U        K1=10.95       1988HDa (76383)4158
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M U        K1=10.95       1987HEa (76384)4159
********************************************************************************
C10H22N4O              L                      CAS 85828-26-8  (5498)
1,4,8,11-Tetraazacyclotetradecane-5-one;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M M                         1990KKa (76402)4160
                                          B(ZnH-1L)=0.59
********************************************************************************
C10H22N4O4             H2L                      (1878)
1,8-Diamino-3,6-diazaoctane-3,6-diethanoic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=19.13       1981CDa (76425)4161
                                         K(Zn+H2L)=8.88
                                         K(Zn+HL)=14.12
********************************************************************************
C10H22N4O4             H2L                      CAS 66650-98-4  (1587)
3,6,9,12-Tetraazatetradecanedioic acid; (HOOC.CH2.NH.CH2.CH2.NH.CH2-)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaCl   25°C 0.15M C        K1=15.65       1990JKa (76428)4162
                                          B(ZnHL)=19.14
********************************************************************************
C10H23N3O              L                        (6453)
1-Oxa-4,8,12-triazacyclotetradecane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C        K1=11.52       1996JLb (76503)4163
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=8.9         1991ACa (76504)4164
                                          B(ZnHL)=16.0
                                          B(ZnH-2L)=-6.5
                                          K(ZnL+2OH)=12.24
********************************************************************************
C10H23N3O2             L                      CAS 60350-18-7  (5875)
1,4-Dioxa-7,10,13-triazacyclopentadecane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaCl   35°C 0.15M C        K1=9.0         1997BBa (76517)4165
```

```
                                        K(ZnL+OH)=4.8
--------------------------------------------------------------------------------
Zn++       gl  NaCl   25°C 0.15M C  I M   K1=8.95        1996BBb (76518)4166
                                        K(ZnL+OH)=4.92
                                        K(ZnL+HCO3)=2.2
                                        K(ZnL+CO3)=3.6
In 0.1 M NaClO4 (K1=9.03, K(ZnL+OH)=4.93).
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=8.95        1994CDa (76519)4167
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C        K1=8.85        1989HBa (76520)4168
********************************************************************************
C10H23N3O2              L                       CAS 572925-33-8  (9069)
Bis(2-hydroxyethyl)-1,4,7-triazacyclononane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C        K1=11.32       2003CPa (76527)4169
                                        *K(ZnL)=-8.50
********************************************************************************
C10H24N2OS2             L                       CAS 68704-79-0  (1787)
8-Oxa-2,14-diaza-5,11-dithiapentadecane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U   H    K1=5.61        1979ASb (76552)4170
                                        B(ZnHL)=10.81
Also DH values
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=5.73   B2=10.63  1975ASb (76553)4171
********************************************************************************
C10H24N2O2              L    Ethambutol         CAS 36697-71-9  (1403)
R-2,2'-(1,2-Ethandyldiimino)-bis-1-butanol;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U T H    K1=6.22        1990BPb (76570)4172
--------------------------------------------------------------------------------
Zn++       gl  NaCl   37°C 0.15M C    M   K1=5.354       1981CMc (76571)4173
                                        B(ZnH-1L)=-3.043
                                        B(ZnH-2L)=-12.28
                                        B(Zn(his)L)=9.81
********************************************************************************
C10H24N2O4              L                       CAS 140-07-8  (2669)
N,N,N',N'-Tetra(2-hydroxyethyl)diaminoethane; ((HO.CH2.CH2)2N.CH2-)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  oth/un 25°C 0.50M U        K1=4.97        1960HDa (76583)4174
********************************************************************************
```

C10H24N2O8P2 H4L CAS 230306-63-5 (7192)
4,10-Bis(phosphonomethyl)-1,7-dioxa-4,10-diazacyclododecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	R4N.X	25°C	0.10M	C		K1=12.97 B(ZnHL)=18.80 B(ZnH2L)=23.80 B(ZnH-1L)=1.84 B(Zn2L)=16.34	2000PSa (76588)	4175

Medium: 0.10 M [Et4N]NO3. B(Zn2H-1L)=8.29

****

C10H24N4 L iso-Cyclam CAS 52877-36-8 (142)
1,4,7,11-Tetraazacyclotetradecane; cyclo(-(HNCH2.CH2)3.CH2.NH.CH2.CH2.CH2-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	U		K1=15.44	1991LHa (76612)	4176
Zn++	cal	non-aq	25°C	100%	U	HM		1981GMb (76613)	4177

DH(2ZnBr2+L=ZnBrL+ZnBr3)=-133.9. Ternary complexes with C5H5N and CH3CN.
Medium: CH3CN

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	cal	oth/un	25°C	1.0M	U	H		1978AFa (76614)	4178

Medium: NaOH. DH(K1)=-69.0 kJ mol-1

****

C10H24N4 L Cyclam CAS 295-37-4 (8)
1,4,8,11-Tetraazacyclotetradecane; cyclo(-(HN.CH2.CH2.NH.(CH2)3)2-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.50M	U		K1=15.5	1997BLd (76644)	4179
Zn++	gl	NaClO4	25°C	0.10M	U		*K(ZnL(H2O))=-9.77	1990KSa (76645)	4180
Zn++	oth	KNO3	25°C	0.10M	U		K1=15.28	1984BSa (76646)	4181

By ultrafiltration

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	NaClO4	25°C	0.10M	U	T H	K1=15.5	1981YPa (76647)	4182
Zn++	gl	KNO3	25°C	0.50M	U		K1=15.34	1980MPa (76648)	4183
Zn++	cal	oth/un	25°C	1.0M	U	H		1978AFa (76649)	4184

Medium: NaOH. DH(K1)=-61.9 kJ mol-1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.20M	M	H	K1=15.0	1978KKb (76650)	4185

DH1=-31.8 kJ mol-1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	oth/un	25°C	0.20M	U	H	K1=15.5	1977KKa (76651)	4186

DH(K1)=-31.8 kJ mol-1

****

C10H24N4 L (4712)

1,4-Bis(3-aminopropyl)-1,4-diazacyclohexane, 1,4-Bis(3-aminopropyl)-piperazine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	U		K1=6.32	1990HNa (76684)	4187

****

C10H24N4 L CAS 91135-29-4 (6516)

1,5-Bis(2-aminoethyl)-1,5-diazacyclooctane; NH2.CH2CH2.N(CH2CH2CH2)2N.CH2CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	U		K1=12.81	1990HNa (76689)	4188

****

C10H24N4O L CAS 468743-83-1 (8673)

1,4,7,10-Tetraazacyclododecane-1-ethanol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	C	M	K1=13.8	1995KKc (76698)	4189
							*K(ZnL)=-7.60		
							K(ZnL+A)=1.6		
							K(ZnL+SCN)=2.0		
							K(ZnL+B)=3.0		

K(ZnL+Cl)=1.3. HA is ethanoic acid, H2B is 4-nitrophenylphosphoric acid.

****

C10H24N4O L (7051)

1-Oxa-4,7,10,13-tetraazacyclopentadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=13.21	1994CDa (76705)	4190
Zn++	gl	NaNO3	25°C	0.10M	U		K1=13.11	1990HWa (76706)	4191

****

C10H25N5 L 15-Ane-N5 CAS 295-64-7 (99)

1,4,7,10,13-Pentaazacyclopentadecane; cyclo(-(HN.CH2.CH2)5-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.20M	M	H	K1=19.1	1978KKb (76727)	4192
							B(ZnHL)=22.2		

DH1=-57.3 kJ mol-1

****

C10H25N5 L CAS 168324-43-4 (9175)

1,4-Bis(2-aminoethyl)-1,4,7-triazacyclononane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

---
Zn++ gl R4N.X 25°C 0.10M C K1=17.48 2004TBa (76742)4193
K(ZnL+H)=3.2
K(ZnL+OH)=3.74
K(ZnL+2OH)=3.47
Medium: 0.1 M N(CH3)4Cl
The reported K(ZnL+2OH) is more probably K(ZnLOH+OH)
****
C10H26N2O12P4 H8L CAS 28698-30-8 (3342)
N,N,N',N'-Tetra(phosphomethyl)cyclohexane-1,2-diamine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl oth/un 25°C 0.10M U K1=9.12 1959BYa (76752)4194
****
C10H26N4 L Spermine CAS 71-44-3 (291)
4,9-Diazadodecane-1,12-diamine; (H2N.CH2.CH2.CH2.NH.CH2.CH2.)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl oth/un 25°C 0.10M C K1=7.79 2001FSb (76788)4195
B(ZnHL)=16.47
B(ZnH-1L)=-1.83
Medium: tetramethylammonium p-toluenesulfonate, 0.10 M.

Zn++ cal none 25°C 0.0 C H 1984ABf (76789)4196
B2eff=5.22 (pH 6.1)
DH(B2eff)=-44.88 kJ mol-1.
****
C10H26N4O6P2 H4L CAS 200951-96-8 (7643)
1,4,7,10-Tetraazacyclododecane-1,7-bis(methanephosphonic acid);

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.10M C K1=21.2 1998BRa (76799)4197
*K(ZnL)=-6.3
K(ZnL+H)=5.3
****
C10H26N4S4 L CAS 55677-43-5 (1178)
1,1,2,2-Tetramercaptoethylamine-ethane; (CH(S.CH2.CH2.NH2)2)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M U 1976CJa (76813)4198
K(Zn+H2L)=4.65
****
C10H27N5 L CAS 58214-71-4 (5539)
4,7,10-Triazatridecane-1,13-diamine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

```
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.15M C        K1=13.01       2002AGa (76827)4199
                                          K(ZnL+H)=7.43
                                          K(ZnL+OH)=1.88
********************************************************************************
C10H28N6                L    PENTEN          CAS 4097-90-9  (3315)
N,N,N',N'-Tetra-(2-aminoethyl)diaminoethane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C  1.0M C        K1=16.66       2001GLb (76860)4200
                                          B(ZnHL)=24.95
--------------------------------------------------------------------------------
Zn++       cal KNO3   25°C 0.10M U   H    K1=16.15       1971PWa (76861)4201
                                          K(Zn+HL)=14.05
                                          K(ZnL+H)=8.0
                                          K(ZnHL+L=ZnL+HL)=2.08
DH(K1)=-60.6 kJ mol-1, DS=104.5 J K-1 mol-1; DH(Zn+HL)=-61.2, DS=62.7;
DH(ZnL+H)=-47.9, DS=-7.9; DH(ZnHL+L=ZnL+HL)=0.6, DS=37.6
--------------------------------------------------------------------------------
Zn++       cal KCl    25°C 0.10M U   H    K1=16.05       1964SPb (76862)4202
                                          B(ZnHL)=14.00
K calculated. By calorimetry: DH(K1)=-60.6 kJ mol-1, DS=104.5 J K-1 mol-1;
DH(ZnHL)=-61.2, DS=62.7
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U        K1=16.24       1953SMa (76863)4203
                                          K(Zn+HL)=14.20
                                          K(ZnL+H)=8.16
********************************************************************************
C11H8N2O                L    Dipyridylketone  CAS 19437-26-4  (1151)
2,2'-Carbonyldipyridine; C5H4N.CO.C5H4N
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U        K1=2.12        1975FSb (76916)4204
                                          K(ZnH-1L+H)=5.3
********************************************************************************
C11H8N6O               HL                      (7009)
1-(5-Tetrazolyl)azo-2-naphthol;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       sp  NaClO4 20°C 0.10M U        K1=8.20   B2=15.10  1978SSf (76924)4205
********************************************************************************
C11H8N6O7S2           H4L                      CAS 35322-95-7  (909)
3-Hydroxy-4-(1H-tetrazol-5-ylazo)-2,7-naphthalenedisulfonic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       sp  NaClO4 25°C 0.10M U        K1=8.51        1978BEa (76935)4206
```

****
C11H8N6O8S2 H5L CAS 74385-48-1 (897)
2-(1H-Tetrazol-5-ylazo)chromotropic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp NaClO4 25°C 0.10M U 1983PSa (76947)4207
K(Zn+H2L=ZnHL+H)=-2.72
****
C11H8OS3 HL CAS 15473-70-8 (4826)
1-Mercapto-1,3-bis(2-thienyl)prop-1-en-3-one;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 75% U K1=9.76 B2=19.27 1969UTa (76957)4208
****
C11H8O3 H2L CAS 86-48-6 (1129)
1-Hydroxy-2-naphthoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M M K1=8.37 1980DCb (77001)4209
K(Zn(nta)+L)=4.59

Zn++ gl KNO3 30°C 0.10M U T H K1=7.49 B2=14.34 1976SSb (77002)4210
At 35 C: K1=8.15, K2=7.65; 40 C: 8.81, 8.20
****
C11H8O3 H2L CAS 2083-08-1 (1131)
2-Hydroxy-1-naphthoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M M K1=7.85 1980DCb (77057)4211
K(Zn(nta)+L)=4.07
****
C11H8O3 HL CAS 483-35-6 (3347)
2-Hydroxy-3-methyl-1,4-naphthoquinone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ vlt oth/un 25°C 0.20M U 1966SPa (77072)4212
B3=12.15
phosphate buffer

Zn++ gl diox/w 30°C 75% U K1=6.80 B2=12.80 1960KFc (77073)4213
****
C11H8O3 H2L CAS 92-70-6 (1130)
2-Hydroxy-3-naphthoic acid (3-Hydroxy-2-naphthoic acid);

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---
Zn++ gl diox/w 25°C 50% C K1=7.8 1987CFb (77104)4214
In 50% dioxan/H2O; 0.2 M KNO3.

Zn++ gl oth/un 25°C ? U 1966MAh (77105)4215
K(Zn+HL=ZnL+H)=4.35
K(Zn+2HL=ZnL2+2H)=4.60
****
C11H8O3 HL Plumbagin CAS 81402-06-4 (882)
6-Hydroxy-2-methyl-1,4-naphthoquinone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 30°C 50% U K1=6.21 B2=12.11 1981RRc (77144)4216
****
C11H8O3S HL CAS 32267-05-3 (3353)
2-Furoyl-2-thenoylmethane; C4H3O.CO.CH2.CO.C4H3S

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 75% U K1=9.60 B2=18.23 1953UFe (77151)4217
****
C11H8O4 HL CAS 7555-37-5 (4812)
3-Acetyl-4-hydroxycoumarin

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 35°C 50% U K1=2.99 B2=5.39 1971MAa (77165)4218
Medium: 50% dioxan, 0.01 M NaClO4
****
C11H8O4 HL CAS 6724-42-1 (6183)
8-Formyl-7-hydroxy-4-methyl-2H-1-benzopyran-2-one; CHO.C9H3O(:O)(CH3)(OH)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 35°C 70% U K1=4.24 B2=7.26 1984CEa (77194)4219
****
C11H9N L CAS 1008-89-5 (3934)
2-Phenylpyridine; C6H5.C5H4N

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M U K1=<1 1964KSb (77302)4220
****
C11H9NO2 HL CAS 92609-55-3 (4827)
5-Acetyl-8-hydroxyquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 60% U K1=8.57 B2=16.70 1973SCd (77323)4221

Medium: 60% dioxan, 0.1 M NaClO4

****

C11H9NO2S HL CAS 29556-13-6 (1450)

N-Phenyl-2-thenoylhydroxamic acid; C4H3SCON(C6H5)OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U	M	K1=5.71	B2=12.29	1984ABb	(77342)4222
							B(ZnL(bpy))=12.92			
							B(ZnL(phen))=14.21			
Zn++	gl	NaClO4	25°C	0.10M	U		K1=5.92	B2=10.75	1975BLa	(77343)4223

****

C11H9NO3 H2L CAS 80690-05-7 (872)

3-Hydroxy-2-methyl-1,4-naphthoquinone monoxime;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	30°C	0.10M	U		K1=5.49	B2=10.56	1981KSa	(77359)4224
							K3=5.12			

****

C11H9NO3 H2L CAS 35975-56-5 (16)

Methyl-8-hydroxyquinoline-2-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	NaClO4	25°C	0.10M	U		K1=6.58	1977HCa	(77369)4225

****

C11H9NO3 HL CAS 1137-48-0 (1449)

N-Phenyl-2-furylhydroxamic acid; C4H3O.CO.N(C6H5).OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U	M	K1=6.45	B2=12.12	1984ABb	(77384)4226
							B(ZnL(bpy))=12.81			
							B(ZnL(phen))=14.00			
Zn++	gl	NaClO4	25°C	0.10M	U		K1=5.96	B2=10.74	1975BLa	(77385)4227

****

C11H9NO4 H2L CAS 4321-82-7 (4829)

3-Acetyl-4-hydroxycoumarin oxime;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	35°C	50%	U			1971MAa	(77407)4228
							K(Zn+HL)=2.72		
							K(Zn+2HL)=4.83		

Medium: 50% dioxan, 0.01 M NaClO4

****

C11H9NO4 HL CAS 65490-35-9 (6230)

8-Formyl-7-hydroxy-4-methyl-2H-[1]benzopyran-2-one-oxime; (CH3)(OH)C9H3O(:O)CH:NOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	alc/w	35°C	70%	U		K1=5.18 B2=8.68	1984CEa (77435)	4229

****

C11H9N2O2F3S HL CAS 33354-16-4 (1681)
2-Methyl-8-(Trifluoromethanesulfonamido)quinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=8.5 B2=15.7	1984NYa (77442)	4230

****

C11H9N3O HL CAS 10335-29-2 (3937)
2-(2'-Pyridylazo)phenol; C5H4N.N:N.C6H4.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	alc/w	24°C	5%	U		B2=15.48	1973BJb (77451)	4231

Medium: 5% EtOH, 0.1 M NaClO4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	alc/w	25°C	50%	U		K1=8.8 B2=16.90	1967ANa (77452)	4232

Medium: 50% MeOH, 0.1 M NaClO4

****

C11H9N3O HL CAS 7687-72-1 (3938)
4-(2'-Pyridylazo)phenol; C5H4N.N:N.C6H4.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	alc/w	25°C	50%	U		K1=<3 K2=<3	1967ANa (77469)	4233

Medium: 50% MeOH, 0.1 M NaClO4

****

C11H9N3O2 H2L PAR CAS 1141-59-9 (636)
4-(2'-Pyridylazo)-1,3-dihydroxybenzene; C5H4N.N:N.C6H3(OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	none	22°C	0	U			1995AHa (77509)	4234
							B2eff=15		

B2eff at pH 10.0, I=0.015 M

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	KNO3	25°C	0.10M	U		B2=21.52	1986OHb (77510)	4235
							K(Zn+2HL)=9.66		
							K(Zn+L+HL)=15.89		
							K(ZnHL2+H)=6.07		
							K(ZnL2+H)=6.67		
Zn++	sp	NaNO3	25°C	0.10M	C		K1=11.2	1983OHb (77511)	4236
							K(Zn+HL)=5.05		

```
Zn++       sp  KNO3   25°C 0.10M U        K1=11.5   B2=20.5   1979PKb (77512)4237
                                          K(Zn+HL)=5.2
                                          K(Zn+2HL)=7.3
--------------------------------------------------------------------------------
Zn++       sp  NaClO4 25°C 0.10M U        K1=11.9   B2=22.20  1968TFb (77513)4238
                                          K(ZnL+H)=5.90
                                          K(ZnL2+H)=7.55
                                          K(ZnHL2+H)=6.45
--------------------------------------------------------------------------------
Zn++       sp  NaClO4 20°C 0.10M U                   1966HSb (77514)4239
                                          K(Zn+HL)=11.6
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U                   1962CYa (77515)4240
                                          K(Zn+HL)=12.4
                                          K(ZnHL+HL)=11.1
                                          K(ZnL+H)=7.7
                                          K(ZnOHL+H)=9.3
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U  I     K1=11.2   B2=19.00  1962GNa (77516)4241
Medium: 50% dioxan, 0.1 M. In 0% dioxan: K1=10.5, K2=6.6
--------------------------------------------------------------------------------
Zn++       sp  oth/un   ?     ?  U        B2=25.3           1961HSb (77517)4242
                                          K(Zn+HL)=12.6
********************************************************************************
C11H9N3O4             H2L                     CAS 82628-26-0  (1379)
1-(2-Tolyl)violuric acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  alc/w  18°C  50%  U T      K1=6.38   B2=11.34  1982SGa (77619)4243
Medium: 50% v/v EtOH/H2O, 0.1 M NaClO4
********************************************************************************
C11H9N3O4             H2L                     CAS 82628-27-1  (1378)
1-(3-Tolyl)violuric acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  alc/w  18°C  50%  U T      K1=6.54   B2=11.56  1982SGa (77626)4244
Medium: 50% v/v EtOH/H2O, 0.1 M NaClO4
********************************************************************************
C11H9N3O4             H2L                     CAS 82628-25-9  (1377)
1-(4-Tolyl)violuric acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  alc/w  18°C  50%  U T      K1=6.75   B2=11.95  1982SGa (77633)4245
Medium: 50% v/v EtOH/H2O, 0.1 M NaClO4
********************************************************************************
C11H9N3O5S             HL                       (6249)
1,2-Naphthoquinone-4-sulfonic acid 2-semicarbazone; C10H5(:O)(HSO3):N.NH.CO.NH2
```

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	28°C	0.10M	U	T H	K1=4.47	B2=8.73	1980MGd (77639)	4246

C11H10N2 L CAS 1132-37-2 (2427)
(2,2'-Dipyridyl)methane; C5H4N.CH2.C5H4N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C		K1=3.20	B2= 6.39	2001OVa (77652)	4247
							B(ZnHL)=7.35			
Zn++	gl	NaClO4	25°C	0.10M	C	M			1979FSa (77653)	4248
							B(ZnL(pyrocatecholate))=13.54			
							K(ZnL+pyrocatecholate)=10.73			
							K(Zn(pyrocatecholate)+L)=3.64			
Zn++	gl	KNO3	20°C	0.10M	U		K1=2.81	B2=5.20	1970BAa (77654)	4249
							K(Zn+HL)=2.0			
							K(Zn+ZnL)=2.1			

C11H10N2O L (7591)
4'-(Imidazol-1-yl)acetophenone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.50M	M		K1=1.94		1998KSa (77663)	4250

C11H10N2O2 HL CAS 75793-37-6 (1669)
N-(8-Quinolyl)aminoethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	U		K1=3.6	B2=7.20	1969TKa (77676)	4251

C11H10N3OClS HL (1294)
2-(4',5'-Dimethyl-2'-thiazolylazo)-4-chlorophenol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	60%	U		K1=6.37	B2=12.47	1981KTa (77687)	4252

C11H10N4 L PAPHY CAS 2215-33-0 (1305)
Pyridine-2-aldehyde-2'-pyridyl-hydrazone; C5H4N.CH:N.NH.C5H4N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	EMF	KNO3	20°C	0.10M	U		K1=6.21	B2=11.79	1971ANa (77699)	4253

Zn++ dis NaClO4 20°C 0.10M U 1971QBa (77700)4254
K(Zn+HL)=5.7
K(Zn+2HL)=12.2
K(ZnHL2+H)=7.96
K(ZnL2+H)=8.78

Zn++ gl oth/un 60°C 0.0 U T H 1968GGc (77701)4255
K(Zn+HL)=4.93
K(Zn+2HL)=9.94
K(Zn+HL)=6.40(5 C),5.82(25C),5.48(40C). DH=-46.0 kJ mol-1,DS=-42 J K-1 mol-1
K(Zn+2HL)=11.77(5 C),11.08(25 C),10.63(40 C). DH=-58.1, DS=17

Zn++ gl oth/un 25°C 0.0 U B2=23 1964GHd (77702)4256
K(Zn+HL)=5.7
K(Zn+2HL)=11.2
K(ZnHL2+H)=7.94
K(ZnL2+H)=8.85
****
C11H10N4O HL (3939)
3-(2'-Hydroxyphenyl)-1-(pyrimidin-2''-yl)-1,2-diazaprop-2-ene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 25°C 50% U K1=9.2 B2=16.30 1967ANd (77714)4257
Medium: 50% MeOH, 0.1 M NaClO4
****
C11H10N4O2S L (6353)
1-Cyanoacetyl-4-benzoylthiosemicarbazide; C6H5.CS.NH.NH.CO.NH.CO.CH2.CN

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 25°C 70% C K1=10.81 B2=17.82 1982SDa (77720)4258
In 70% ethanol/H2O; Electrolyte: 0.1 M KCl
****
C11H11NO HL CAS 39892-35-8 (3940)
2-Ethyl-8-hydroxyquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl oth/un 25°C 0.0 U K1=9.89 B2=19.11 1966KUc (77763)4259
****
C11H11NO2 HL CAS 35385-27-4 (8689)
8-Hydroxy-(2-hydroxyethyl)quinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp KCl 30°C 1.0M M K1=7.83 1996BTa (77766)4260
****
C11H11NO2 HL CAS 830-96-6 (892)
Indole-3-propanoic acid;

```
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  C    M   K1=2.52        1985BSd (77778)4261
                                          K(Zn(phen)+L)=2.63
Medium: 50% v/v dioxan/H2O, 0.1 M NaClO4
*******************************************************************************
C11H11NO4              HL                      CAS 32345-47-4  (6227)
4-Methoxymaleanilic acid; HOOC.CH:CH.CO.NH.C6H4.OCH3
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  alc/w  22°C  80%  U T H    K1=7.90   B2=14.25  1985SAb (77785)4262
30 C: K1= 7.80, K2=6.35; 40 C: K1= 7.65, K2=6.20
DH(K1)=-23.0 kJ mol-1, DS=71 J K-1 mol-1; DH(K2)=-14.2, DS=75
*******************************************************************************
C11H11NO6             H3L                      CAS 1147-65-5  (425)
N-(2'-Carboxyphenyl)iminodiethanoic acid; HOOC.C6H4.N(CH2.COOH)2
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M   K1=8.42        1990DAb (77806)4263
                                          K(ZnL+A)=3.58
                                          B(ZnLA)=12.00
H2A: salicylaldoxime
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C    M   K1=8.42        1990DAc (77807)4264
                                          K(ZnL+A)=3.35
                                          B(ZnAL)=11.77
HL: benzohydroxamic acid
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=8.42        1967UKa (77808)4265
-------------------------------------------------------------------------------
Zn++       sp  NaNO3  20°C 0.10M U                       1961DSa (77809)4266
                                          K(?)=5.61
-------------------------------------------------------------------------------
Zn++       EMF KCl    20°C 0.10M C        K1=7.7         1950WIa (77810)4267
Method: H electrode
*******************************************************************************
C11H11NS               HL                      CAS 54128-50-6  (1033)
2,7-Dimethyl-8-mercaptoquinoline;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  non-aq 25°C 100%  U        K1=9.1    B2=16.0   1984UBa (77853)4268
Medium: DMF, 0.1 M LiClO4.  Similar data to reference UB83a
-------------------------------------------------------------------------------
Zn++       EMF non-aq 25°C 100%  U        K1=9.1    B2=16.00  1983UBa (77854)4269
Medium: DMF, 0.1 M LiClO4
*******************************************************************************
```

C11H11NS2 HL CAS 54487-80-8 (5694)
2-Methyl-(5-thiomethyl)-8-mercaptoquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ EMF non-aq 25°C 100% U K1=7.1 B2=12.90 1986UBa (77864)4270
Medium: dimethylformamide, LiClO4
****
C11H11N2O2Br HL (9228)
3-[4-Bromophenylazo]penta-2,4-dione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 25°C 0.1M U K1=6.82 2004GMc (77871)4271
Medium: 0.1 mol/L KCl in 3:7 EtOH/H2O mixture
****
C11H11N2O2Cl HL (9229)
3-[4-Chlorophenylazo]penta-2,4-dione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 25°C 0.1M U K1=6.92 2004GMc (77883)4272
Medium: 0.1 mol/L KCl in 3:7 EtOH/H2O mixture
****
C11H11N2O2I HL (9227)
3-[4-Iodophenylazo]penta-2,4-dione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 25°C 0.1M U K1=6.85 2004GMc (77894)4273
Medium: 0.1 mol/L KCl in 3:7 EtOH/H2O mixture
****
C11H11N3O2S HL Sulfapyridine CAS 144-83-2 (8356)
4-Amino-N-2-pyridinyl-benzenesulfonamide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 30°C 50% C M 1999MBc (77926)4274
B(Zn(gly)L)=11.05
B(ZnAL)=10.64
B(Zn(met)L)=10.22
B(ZnH-1(gly)L)=4.08
In 50% v/v EtOH/H2O, 0.10 M NaNO3. B(ZnH-2(gly)L)=-4.20; B(ZnH-1AL)=2.79,
B(ZnH-2AL)=-5.36; B(ZnH-1(met)L)=2.32, B(ZnH-2(met)L)=-5.74. A: Beta-ala
---
Zn++ gl diox/w 30°C 50% U K1=4.39 B2= 7.84 1993MBc (77927)4275
*K(ZnL)=-7.05
*K(ZnL2)=-7.85
*K(Zn(OH)L2)=-11.45
Medium: 50% v/v dioxane/H2O, 0.10 M NaNO3.

****
C11H11N3O3 HL CAS 51451-03-7 (4834)
3-Methyl-4-(2'-methoxyphenylazo)isoxazol-5-one;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 75% U B2=9.0 1971SYa (77939)4276
****
C11H11N3O3S L CAS 67665-24-1 (8341)
Furoin thiosemicarbazone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 30°C 50% U T H K1=8.95 B2=16.88 1991HRa (77948)4277
Medium: 50% v/v EtOH/H2O, 0.1 M NaClO4. Data for 40 and 50 C.
DH(K1)=-144 kJ mol-1, DS(K1)=306 J K-1 mol-1; DH(K2)=-121, DS(K2)=248.
****
C11H11N3O4 HL (9230)
3-[4-Nitrophenylazo]penta-2,4-dione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 25°C 0.1M U K1=6.58 2004GMc (77954)4278
Medium: 0.1 mol/L KCl in 3:7 EtOH/H2O mixture
****
C11H12NOCl L CAS 50519-24-9 (3367)
4-(4-Chlorophenylimino)pentan-2-one; CH3.CO.CH2.C(:N.C6H4.Cl).CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 25°C 70% U K1=5.64 1992CGd (77978)4279
Medium: 70% EtOH/H2O. For 4-fluoro K1=4.70; 4-bromo 5.74; 4-iodo 5.93
****
C11H12N2O L Antipyrine CAS 60-80-0 (2026)
2,3-Dimethyl-1-phenyl-3-pyrazolin-5-one, Phenazone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.50M U K1=0.43 B2=0.64 1980LWa (78000)4280
B3=0.65
****
C11H12N2O2 HL CAS 103314-23-4 (6182)
2-(N-2-Pyrrolidimino)benzoic acid; C4H7N:N.C6H4.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M U TIH B2=9.65 1988GRb (78012)4281
35 C:B2=9.78, 45 C:9.90. DH(B2)=22.7 kJ mol-1, DS=260.9 J K-1 mol-1
****
C11H12N2O2 HL Tryptophan CAS 73-22-3 (3)

2-Amino-3-(3-indolyl)propanoic acid; H2N.CH(CH2.C8H6N)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	35°C	0.10M	C	M	K1=4.96 B(ZnAL)=5.12	1999DSb (78135)	4282
A is thiamine hydrochloride.									
Zn++	vlt	NaClO4	25°C	1.0M	C	M	K1=5.00 B2= 9.60 B3=12.30 B(ZnAL)=5.20 B(ZnA2L)=9.85 B(ZnAL2)=12.50	1997KKb (78136)	4283
Method: polarography. HA is pyridoxine (vitamin B6). Medium pH 8.50.									
Zn++	gl	KNO3	35°C	0.10M	C	M	K1=4.90 K(ZnL+A)=4.83	1997PSb (78137)	4284
H2A is thiamine orthophosphoric acid.									
Zn++	gl	NaClO4	25°C	0.20M	M		K1=4.83	1996VBa (78138)	4285
Zn++	gl	NaClO4	25°C	0.20M	M		K1=4.835 B2= 9.66	1994VBb (78139)	4286
Zn++	gl	NaClO4	25°C	0.20M	M		K1=4.855 B2= 9.66	1994VBc (78140)	4287
Zn++	gl	NaClO4	25°C	0.20M	U	M	K1=4.88 B2=9.63 B(ZnL(Tyr))=10.36 B(ZnL(Phe))=9.88	1992VBa (78141)	4288
Zn++	gl	KNO3	35°C	0.10M	U		K1=4.60	1990RSe (78142)	4289
Zn++	gl	KNO3	35°C	0.10M	U	M	K1=4.99 K(Zn(thiodipropanoate)+L)=4.93	1989RSb (78143)	4290
Zn++	gl	KNO3	35°C	0.20M	U	M	K1=4.59 B2=8.64 K(ZnA+L)=4.66	1989RVa (78144)	4291
A=bis(imidazol-2-yl)methane									
Zn++	gl	KNO3	25°C	0.20M	U	M	K1=4.79 K(Zn(bpy)+L)=5.16	1988BSc (78145)	4292
Zn++	gl	KNO3	25°C	0.10M	U	M	K1=5.16 B2=9.62	1988MBa (78146)	4293
Zn++	vlt	NaClO4	25°C	0.10M	C		K1=9.0 B2=14.78	1986KSc (78147)	4294
Method: polarography. Medium pH 7.0									
Zn++	gl	KNO3	25°C	0.10M	U		K1=4.70	1985MKa (78148)	4295
Zn++	gl	KNO3	25°C	0.10M	C	H	K1=4.70 B2=8.93	1983ACb (78149)	4296
DH(K1)=-12.1; DH(B2)=-24.3 kJ mol-1.									

```
--------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M C    M   K1=4.96        1983KSc (78150)4297
                                          K(ZnHA+L)=5.24
                                          K(ZnHB+L)=4.92
A is adenine; HB is cytosine.
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.15M U        K1=4.62        1982VDa (78151)4298
--------------------------------------------------------------------------------
Zn++       vlt NaClO4 25°C 0.10M C        K1=9.0    B2=14.70  1981KVa (78152)4299
Method: polarography. Medium pH 7.0
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M C    M   K1=4.69        1976SNa (78153)4300
                                          K(ZnL+ATP)=5.03
                                          K(Zn(ATP)+L)=4.51
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  20°C 0.37M U      T K1=5.18   B2=9.87   1971WSa (78154)4301
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C  3.0M U      T K1=5.01   B2=9.78   1970WIa (78155)4302
                                          B3=13.50
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C .005M U        B2=8.2         1953PEa (78156)4303
Medium: 0.005 ZnSO4
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C 0.01M U        K2=9.3         1950ALa (78157)4304
********************************************************************************
C11H12N2O2             HL                        (9226)
3-[Diphenylazo]penta-2,4-dione;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  alc/w  25°C  0.1M U        K1=7.96        2004GMc (78245)4305
Medium: 0.1 mol/L KCl in 3:7 EtOH/H2O mixture
********************************************************************************
C11H12N2O2S            HL                     CAS 51925-00-9  (1677)
2-Methyl-8-(methanesulfonamido)quinoline;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  75%  U        K1=10.9   B2=22.0   1984NYa (78256)4306
********************************************************************************
C11H12N2O3             HL                        (6598)
2,3-Dehydro-N-glycyl-phenylalanine; NH2.CH2.CO.NH.C(COOH):CH.C6H5
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C        K1=3.21   B2=6.02   1994JBa (78265)4307
                                          B(ZnH-1L)=-4.83
                                          B(ZnH-2L)=-13.05
                                          B(ZnH-1L2)=-2.17
                                          B(ZnH-2L2)=-10.89
```

****
C11H12N2O3 H2L CAS 121565-72-8 (8344)
2-[[2-(Hydroxyimino)-1-methylpropylidene]amino]benzoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 30°C 50% C T H K1=8.62 1993HCb (78270)4308
Medium: 50% v/v EtOH/H2O, 0.10 M NaClO4. For meta-COOH, K1=10.20;
for para-COOH, K1=8.88. Data for 40 and 50 C and DH and DS values.
****
C11H12N2O3 HL CAS 20771-72-6 (3359)
4-(4-Nitrophenylimino)pentan-2-one; CH3.CO.CH2.C(:N.C6H4.NO2).CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 50% U K1=9.37 B2=17.23 1961MJa (78275)4309
****
C11H12N2O3 H2L CAS 114-03-4 (4839)
5-Hydroxytryptophan;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ vlt NaClO4 25°C 1.0M C M 1997KKb (78288)4310
K(Zn+HL)=4.50
K(Zn+2HL)=8.72
K(Zn+3HL)=12.00
K(Zn+HL+A)=4.70
Method: polarography. K(Zn+HL+2A)=8.85, K(Zn+2HL+A)=12.32.
HA is pyridoxine (vitamin B6). Medium pH 8.50.

Zn++ gl NaNO3 20°C 0.37M U 1971WSd (78289)4311
K(Zn+HL)=4.49
K(Zn+2HL)=8.78
****
C11H12N2O3 HL CAS 642074-71-3 (9045)
N-Benzyl-N'-hydroxypiperazine-2,6-dione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C B2=8.23 2003CMb (78296)4312
****
C11H12N2O5 H2L CAS 5853-99-6 (8739)
N-[N-(2-Hydroxybenzoyl)glycyl]glycine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 30°C 50% C 1991MCb (78303)4313
K(Zn+HL=ZnH-2L+3H)=-19.21
Medium: 50% v/v EtOH/H2O, 0.2 M NaNO3.
****

C11H12N2O5S HL CAS 56475-09-3 (8410)
3-(4'-Sulfophenylhydrazo)-pentane-2,4-dione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.10M U T K1=7.48 2005ACa (78311)4314
For 35 C K1=7.33; for 45 C K1=7.18
****
C11H12N2O7 H3L CAS 76268-70-5 (3360)
N-(2-Hydroxy-5-nitrobenzyl)iminodiethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 20°C 0.10M U K1=12.6 1952SAb (78339)4315
****
C11H12N4O L CAS 86869-40-1 (8372)
3-(2-Methoxyphenyl)-6-hydrazinopyridazine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaCl 37°C 0.15M U K1=3.603 B2= 7.25 1984AMb (78346)4316
Also data for the 3-methoxyphenyl- derivative (B2=7.513, B3=10.00)
and the 4-methoxyphenyl- derivative (K1=3.788)
****
C11H12N4O2 HL (4837)
2-(5-Methyl-4-imidazolylazo)-4-methoxyphenol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 50% U K1=10.0 B2=16.90 1968YTa (78352)4317
Medium: 50% dioxan, 0.1 M KNO3
****
C11H12N6 CAS 127742-73-8 (3107)
4-(Imidazol-4-ylmethyl)-2-(imidazol-2-ylmethyl)imidazole; L

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M C M K1=8.45 B2=13.42 2000JGa (78365)4318
B(ZnHL)=11.98
B(ZnH-1L)=0.23
B(ZnHL2)=19.45
B(ZnH2L2)=24.05
For H2A=cysteine: B(ZnAL)=15.66, B(ZnHAL)=23.06, B(ZnH2AL)=28.79.
****
C11H12O4S2 H2L CAS 4265-49-0 (4840)
4-Methyl-1,2-phenylenebisthioethanoic acid; CH3.C6H3(S.CH2.COOH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M U K1=2.20 1971FPa (78412)4319

****

C11H12O9 H3L CAS 69065-58-3 (2714)
1,2,4-Trihydroxy-3,4,5-trimethoxycarbonylcyclopentadiene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	C	T		1978MSh	(78423)	4320
							DH(Zn+HL)=-7.1 kJ/mol			

Data obtained from three lgK values at 15, 25 and 35 C.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	U			1975MSb	(78424)	4321
							K(Zn+HL)=5.92			
							K(ZnHL+HL)=4.57			

****

C11H13NO HL CAS 880-12-6 (3361)
4-(Phenylimino)pentan-2-one; CH3.CO.CH2.C(:N.C6H5).CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	alc/w	25°C	70%	U		K1=7.41	1992CGd	(78436)	4322

Medium: 70% EtOH/H2O

****

C11H13NO4 H2L (3364)
N-2-Tolyliminodiethanoic acid; CH3.C6H4.N(CH2COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	30°C	0.10M	U		K1=2.7	1957TBb	(78544)	4323

****

C11H13NO4 H2L CAS 300042-63-8 (7950)
N-4-Tolyliminodiethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	cal	NaClO4	25°C	0.10M	C	H		1997ZLa	(78549)	4324

DH(K1)=15.1, DH(K2)=11.4 kJ mol-1. DH(B(ZnL(nta))=11.0.

****

C11H13NO4 H2L CAS 3987-53-9 (966)
N-Benzyliminodiethanoic acid; C6H5.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values			Reference	ExptNo
Zn++	gl	oth/un	?	?	U		K1=7.0		1975DTa	(78571)	4325
Zn++	gl	KNO3	25°C	0.10M	C		K1=6.98	B2=12.51	1975IPa	(78572)	4326
Zn++	gl	KCl	40°C	0.10M	U	T	K1=6.96	B2=12.25	1968EAb	(78573)	4327

K1=7.09(10 C),7.00(25 C); K2=5.65(10 C),5.45(25 C)

****

C11H13NO5 H3L HBIDA CAS 7372-13-6 (1603)

N-(2-Hydroxybenzyl)iminodiethanoic acid; HO.C6H4.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=12.99 K(ZnL+H)=5.79 K(Zn+HL)=7.07	1975HMb (78611)	4328

****

C11H13NO6 H4L CAS 1911-59-2 (4852)
2,3-Dihydroxybenzyliminodiethanoic acid; (HO)2.C6H3.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	EMF	oth/un	?	?	U		K(Zn+HL)=13.3 K(Zn+H2L)=8.2	1975DTa (78655)	4329

****

C11H13NO6 H4L CAS 59036-09-8 (2111)
2,5-Dihydroxybenzyliminodiethanoic acid; (HO)2.C6H3.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	oth/un	25°C	0.0	U		K(Zn+HL)=13.6 K(Zn+H2L)=8.0	1970TTb (78670)	4330

****

C11H13NO6 H4L CAS 31477-66-7 (4853)
2,6-Dihydroxybenzyliminodiethanoic acid; (HO)2.C6H3.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	EMF	oth/un	?	?	U		K(Zn+HL)=10.9 K(Zn+H2L)=8.0	1975DTa (78686)	4331

****

C11H13NO6S H3L CAS 20531-36-6 (4872)
N-Benzenesulfonyl-1-glutamic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	EMF	none	30°C	0.0	U		K(Zn+H3L=ZnH2L+H)=1.77 K(ZnHL+H)=4.32	1970GDb (78696)	4332

****

C11H13N3O L Ampyrone CAS 83-07-8 (2027)
4-Amino-2,3-dimethyl-1-phenyl-3-pyrazolin-5-one, 4-Aminoantipyrine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=1.32 B2=2.42	1980LWa (78704)	4333

****
C11H13O4AsS H2L CAS 36198-36-4 (4870)
Bis(carboxymethyl)-2-(methylthiophenyl)arsine; (HOOC.CH2)2.As.C6H4.S.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	oth/un	25°C	0.10M	U		K1=3.20 K(Zn+HL)=2.52	1971FPa	(78740)4334

****
C11H14N2O L CAS 51036-80-7 (444)
1-(1-Ethoxyethyl)benzimidazole;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	kin	NaCl	80°C	0.90M	C		K(Zn+HL=ZnL+H)=3.1	1980LKa	(78768)4335

****
C11H14N2O L (4854)
Methylglyoxal 4-dimethylaminoanil

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	oth/un	?	?	U		K1=5.46	1969SMa	(78774)4336

****
C11H14N2O3 HL Gly-Phe CAS 3321-03-7 (829)
Glycyl-phenylalanine; H2N.CH2.CO.NH.CH(CH2.C6H5).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	oth/un	25°C	0.01M	U		K1=3.8	1954PEa	(78807)4337

****
C11H14N2O4 H2L Gly-Tyr CAS 658-79-5 (533)
Glycyl-tyrosine; H2N.CH2.CO.NH.CH(CH2.C6H4.OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.16M	M		B2=8.14 B(ZnHL)=13.48 B(ZnH2L2)=26.31 B(ZnHL2)=17.80 B(ZnH-1L)=-1.40 B(ZnH-2L2)=-11.8	1979AKa	(78853)4338
Zn++	gl	oth/un	25°C	0.01M	U		K(Zn+HL)=2.6	1954PEa	(78854)4339

****
C11H14N2O4 H2L (1880)
N-(6-Methyl-2-pyridylmethyl)iminodiethanoic acid; CH3C5H3NCH2N(CH2COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

---
Zn++ ISE NaNO3 20°C 0.10M C H K1=9.80 1981ANb (78871)4340
DH(K1)=-9.2 kJ mol-1, DS=156 J K-1 mol-1
additional method: exchange equilibria
****
C11H14N2O4 H2L CAS 642074-70-2 (9044)
N-Benzyl-N-carboxymethyl-iminoacetohydroxamic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C K1=6.63 B2=11.06 2003CMb (78900)4341
B(ZnHL)=12.84
B(ZnHL2)=18.6
B(ZnH2L2)=24.51
****
C11H14N4OS HL CAS 56566-64-4 (2816)
Biacetylmonoxime-4-phenyl-3-thiosemicarbazone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 30°C 50% U T H K1=6.95 1992HRa (78935)4342
Medium: 50% v/v EtOH/H2O, 0.1 M NaClO4. Data for 40 and 50 C.
DH(K1)=-30.7 kJ mol-1, DS(K1)=31.0 J K-1 mol-1.
****
C11H14N4O4 L Tubercidin CAS 69-33-0 (6412)
7-Deazaadenosine, Tubercidin;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaNO3 25°C 0.50M C K1=0.19 2002KSb (78948)4343

Zn++ gl NaNO3 25°C 0.50M M K1=0.33 1991JCa (78949)4344
****
C11H14N4O5 HL 1-Methylinosine CAS 2140-73-0 (8133)
1-Methylhypoxanthine-9-beta-D-ribofuranoside;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 1.0M U 1981LVa (78971)4345
K(Zn+HL=ZnHL)=0.3
****
C11H14O2 HL CAS 20907-24-8 (4816)
2-Hydroxy-3-methylbutyrophenone; (HO).C6H3(CH3).CO.CH2.CH2.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 40°C 0.10M U K1=7.10 1973SPc (78984)4346
****
C11H14O2 HL CAS 52780-68-4 (4817)
2-Hydroxy-4-methylbutyrophenone; (HO).C6H3(CH3).CO.CH2.CH2.CH3

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   40°C 0.10M U        K1=6.68        1973SPc (78989)4347
********************************************************************************
C11H14O2               HL                     CAS 24323-47-5  (4818)
2-Hydroxy-5-methylbutyrophenone; (HO).C6H3(CH3).CO.CH2.CH2.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   40°C 0.10M U        K1=6.38        1973SPc (78994)4348
********************************************************************************
C11H14O2               HL                     CAS 2270-20-4  (5542)
5-Phenylpentanoic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C  I M   K1=1.13        1985BSd (79000)4349
                                        K(Zn(phen)+L)=1.10
In 50% dioxan: K1=2.49, K(Zn(phen)+L)=2.50. In 50% EtOH: K1=1.91, K=2.09
********************************************************************************
C11H14O2S              HL                      (4857)
2-Thenoylpivaloylmethane; C4H3S.CO.CH2.CO.C(CH3)3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  75%  U        K1=9.63   B2=18.48  1972UDa (79003)4350
Medium: 75% v/v dioxan, 0.01 M Me4NClO4
********************************************************************************
C11H14O3               HL                      (4819)
2-Furoyl pivaloyl methane; C4H3O.CO.CH2.CO.C(CH3)3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  75%  U        K1=9.31   B2=17.59  1972UDa (79009)4351
Medium: 75% v/v dioxan, 0.01 M Me4NClO4
********************************************************************************
C11H14O5               HL                     CAS 951-82-6  (5594)
2-(3,4,5-Trimethoxyphenyl)ethanoic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  C    M   K1=2.21        1985BSd (79014)4352
                                        K(Zn(phen)+L)=2.33
Medium: 50% v/v dioxan/H2O, 0.1 M NaClO4
********************************************************************************
C11H15NO3               L                      (6281)
Benzaldehyde:tris-buffer Schiff's base; C6H5.CH:N.C(CH2.OH)3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
```

```
--------------------------------------------------------------------------------
Zn++       gl  alc/w  26°C  60%  U        K1=1.58   B2=4.31   1978TPb (79028)4353
********************************************************************************
C11H15NO4              HL                      CAS 18212-81-2  (6280)
Salicylaldehyde:tris-buffer Schiffs base;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  alc/w  26°C  60%  U        K1=3.90        1978TPb (79040)4354
********************************************************************************
C11H15NO4S2           H2L                      CAS 51786-15-3  (8749)
N-(Phenylsulfonyl)-L-methionine;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  alc/w  25°C  50%  C T H                    1987MDe (79048)4355
                                       K(Zn+HL=ZnL+H)=4.57
                                       K(Zn+2HL=ZnL2+2H)=9.61
Medium: 50% v/v EtOH/H2O, 0.2 M NaNO3. Data for 35, 45 C.
Enthalpy and entropy data.
********************************************************************************
C11H15NS2              HL                      CAS 73732-54-4  (1253)
4-Diethylaminodithiobenzoic acid; (C2H5)2N.C6H4.CSSH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       sp  oth/un 25°C    ?  U    M                   1979CDa (79055)4356
                                       K(ZnL2+pyridine)=3.08
                                       K(ZnL2+(4-Me-pyridine))=3.52
                                       K(ZnL2+(4-Ph-pyridine))=3.32
                                       K(ZnL2+(4-CN-pyridine))=1.40
********************************************************************************
C11H15N4O7P           H2L                      CAS 16719-46-3  (6026)
Tubercidin-5'-monophosphoric acid, 7-Deazaadenosine-5-monophosphoric acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C        K1=2.11        1988SMb (79064)4357
                                       K(Zn+HL)=0.93
********************************************************************************
C11H16N2O2             L    Pilocarpine      CAS 54-71-7  (1431)
(3S;4R)-3-Ethyldihydro-4-((1-methyl-1H-imidazol-5-yl)methyl)-2-furanone;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=2.41   B2=4.84   1983LWa (79087)4358
                                       B3=7.36
                                       B4=9.65
                                       B5=11.39
                                       B6=12.00
```

```
--------------------------------------------------------------------------------
Zn++       EMF oth/un 25°C 0.10M U        K1=2.43   B2=4.82   1968LUa (79088)4359
                                          B3=7.12
                                          B4=9.38
********************************************************************************
C11H16N2O10           H5L    CEDTA            CAS 62394-58-5  (1080)
1-Carboxy-1,2-diaminoethane-N,N,N',N'-tetraethanoic acid;
(HOOCCH2)2NCH(COOH)CH2N(CH2COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   20°C 0.10M U                         1982GSg (79105)4360
                                          K(Zn+HL)=12.44
--------------------------------------------------------------------------------
Zn++       gl  KNO3   20°C 0.10M U        K1=12.44        1982GSh (79106)4361
********************************************************************************
C11H16N2S2              L                     CAS 771500-52-8  (9193)
2,8-Dithia-5-aza-2,6-pyridinophane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.10M C        K1=7.13         2004BBe (79116)4362
Medium: 0.1 M Me4NO3
********************************************************************************
C11H16N4O2S             L    Cyclo-Met-His      (1684)
Cyclo-(methionyl-histidyl)
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.20M U        K1=2.43   B2=4.32   1985KIb (79127)4363
********************************************************************************
C11H16N4O5             HL    7-Methylinosine  CAS 20245-33-4  (8134)
7-Methylhypoxanthine-9-beta-D-ribofuranoside;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C  1.0M U                         1981LVa (79134)4364
                                          K(Zn+HL=ZnL+H)=-5.7
********************************************************************************
C11H17NO6              H3L                     (3951)
N-(2'-Carboxycyclohexyl)iminodiethanoic acid; HOOC.C6H10.N(CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U        K1=11.70        1966IMa (79162)4365
********************************************************************************
C11H17NO8S             H3L                     CAS 91649-51-3  (8438)
N,N,S-Tris(carboxymethyl)methionine;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
```

```
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C        K1=8.78        1984RFd (79170)4366
                                          K(Zn+HL)=7.93
                                          *K(ZnHL)=-10.30
********************************************************************************
C11H17N2O6P            HL                        (5908)
3(((3-Hydroxy-2,5-dimethyl-4-pyridinyl)methylene)amino)-3-phosphonopropanoic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 1.00M C        K1=10.58  B2=17.26  1989MSb (79185)4367
                                          K(ZnL+H)=7.64
                                          K(ZnHL+H)=5.17
********************************************************************************
C11H17N5O4              L    Gly-Gly-His-OMe  CAS 60414-84-8  (75)
Glycyl-glycyl-histidine methyl ester; H2N.CH2.CO.NH.CH2.CO.NH.CH(CH2C3H3N2)COOCH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   37°C 0.15M U        K1=3.00        1977APa (79190)4368
                                          B(ZnH-1L)=-4.12
********************************************************************************
C11H18N2O3S            HL                    CAS 1784-22-1  (4874)
d-Homobiotin
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U    M   K1=2.43        1969SMc (79206)4369
                                          K(Zn(bpy)=2.48
Medium: 50% dioxan, 0.1 M NaClO4
********************************************************************************
C11H18N2O8            H4L    PDTA            CAS 4408-81-5  (1655)
1,2-Diaminopropane-N,N,N',N'-tetraethanoic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       vlt KNO3   20°C 0.10M U        K1=15.41       1981NSc (79232)4370
--------------------------------------------------------------------------------
Zn++       gl  KNO3   20°C 0.10M U        K1=17.70       1978NLb (79233)4371
--------------------------------------------------------------------------------
Zn++       dis none   25°C  0.0  U        K1=15.8        1977MFb (79234)4372
Measured by liquid chromatography on a chelating resin
--------------------------------------------------------------------------------
Zn++       cal KNO3   25°C 0.20M C   H                   1975CGf (79235)4373
DH(K1)=-25.9 kJ mol-1.
--------------------------------------------------------------------------------
Zn++       vlt KNO3   25°C 0.20M U        K1=17.14       1965OGa (79236)4374
--------------------------------------------------------------------------------
Zn++       vlt KNO3   25°C 0.20M U    M                   1965TOb (79237)4375
                                          K(Co+ZnL=CoL+Zn)=-0.07
```

K(Ni+ZnL=NiL+Zn)=2.28
K(Cu+ZnL=CuL+Zn)=2.50
K(Cd+ZnL=CdL+Zn)=0.29
K(Pb+ZnL=PbL+Zn)=1.56. Medium: 0.2 KNO3, 0.01% gelatin

****

C11H18N2O8 H4L CAS 4408-81-5 (923)
1,3-Diaminopropane-N,N,N',N'-tetraethanoic acid; ((HOOC.CH2)2N.CH2.)2.CH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	oth	KNO3	20°C	0.10M	U		K1=15.26	1971AWa	(79397)4376
Zn++	vlt	KNO3	25°C	0.20M	U		K1=14.26	1965OGa	(79398)4377
Zn++	gl	KNO3	20°C	0.10M	U	H		1964ANa	(79399)4378
							K(Zn+HL)=7.3		
By calorimetry: DH(K1)=-9.5 kJ mol-1, DS=258 J K-1 mol-1									
Zn++	gl	KNO3	20°C	0.10M	U		K1=15.26	1964LAa	(79400)4379
							K(ZnL+H)=2.5		
By polarography: K1=15.22									
Zn++	ISE	KNO3	20°C	0.10M	U		K1=15.25	1964LAa	(79401)4380
By glass electrode: K1=15.29 and 15.06(with Ca++)									

****

C11H18N2O9 H4L HDPTA CAS 3148-72-9 (431)
1,3-Diamino-2-hydroxypropane-N,N,N',N'-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	KNO3	20°C	0.10M	U		K1=13.95	1967SMf	(79511)4381
Zn++	EMF	KCl	20°C	0.10M	U		K1=11.51	1966PIa	(79512)4382
Method: H electrode									
Zn++	gl	KNO3	25°C	0.10M	U		K1=13.70	1966TKa	(79513)4383
							K(ZnL+H)=3.58		
Zn++	oth	KNO3	20°C	0.10M	U		K1=13.5	1965JMb	(79514)4384
Method: electrophoresis									
Zn++	vlt	KCl	20°C	0.10M	U		K1=12.95	1964DSc	(79515)4385

****

C11H18N4 L CAS 78668-34-5 (6708)
3,6,9,15-Tetraazabicyclo[9.3.1]pentadeca-1(15),11,13-triene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=14.40	1993CDa	(79615)4386
							K(Zn(OH)L+H)=8.5		

****

C11H18N6O3 HL Gly-Gly-His-NMe CAS 59681-15-1 (2222)
Glycyl-glycyl-L-histidyl-N-methylamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.16M	U		B2=6.58 B(ZnHL)=10.20 B(ZnH-1L)=-5.02 B(ZnH-2L)=-12.70	1979LSa (79647)	4387

****

C11H20N2O3 HL Pro-Leu CAS 52899-07-7 (258)
Prolyl-leucine; C4H8N.CO.NH.CH(CH2.CH(CH3)2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	20°C	0.20M	U		K1=3.61 B2=7.59	1982KRc (79703)	4388

****

C11H20N2O4S H2L (6639)
1-Thia-4,8-diazacyclodecane-N,N'-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=14.41	1993WLa (79713)	4389

****

C11H20N4O6 H2L ICRF 198 CAS 108430-47-3 (8369)
N,N'-(1-Methyl-1,2-ethanediyl)bis[N-(2-amino-2-oxoethyl)glycine];

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	37°C	0.15M	C		K1=9.499 B(ZnHL)=11.919 B(ZnHL2)=19.061 B(ZnH2L2)=23.109 B(ZnH-1L)=0.169	1982HMb (79725)	4390

****

C11H20O2 HL Dipivaloylmeth. CAS 1118-71-4 (363)
2,2,6,6-Tetramethyl-3,5-heptanedione; (CH3)3C.CO.CH2.CO.C(CH3)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=12.04	1977AHb (79739)	4391
Zn++	cal	non-aq	30°C	100%	U	M	K(ZnL2+py)=2.69	1973DGb (79740)	4392

Medium: benzene.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=10.47 B2=20.28	1972UDa (79741)	4393

Medium: 75% v/v dioxan, 0.01 M Me4NClO4

****

C11H20O4 H2L CAS 2283-16-1 (2854)
2,2-Dibutylpropanedioic acid; HOOC.C(C4H9)2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C	H	K1=2.52 B2=4.51	1989ABa	(79762)4394
							B(Zn(bpy)L)=8.25		

DH(K1)=23 kJ mol-1, DS(K1)=125.5 J K-1 mol-1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	U		K1=2.55	1970OVa	(79763)4395

****

C11H21N3O5 H2L CAS 499238-77-6 (8837)
N-Hydroxy-N'-[4-(hydroxymethylamino)-4-oxobutyl]-N-methylpentanediamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.20M	C		K1=7.40	2004FBa	(79792)4396
							B(ZnHL)=13.93		
							B(Zn2L3)=21.1		

****

C11H21N3O5 H2L 2,4-DIHA CAS 709640-92-6 (9157)
N-Hydroxy-N'-[5-(hydroxymethylamino)-5-oxopentyl]-N-methyl-butanediamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.20M	C		K1=7.97	2004FBa	(79801)4397
							B(ZnHL)=14.03		
							B(Zn2L3)=22.2		

****

C11H21N3O6 H3L CAS 65439-22-7 (1857)
1,1,1-Tris(aminomethyl)ethane-N,N',N''-triethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=12.78	1977HZa	(79812)4398
							K(Zn+HL)=7.90		

****

C11H23N3O3 HL Val-Lys CAS 97791-87-2 (5769)
Valyl-lysine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	37°C	0.10M	C			1984RRc	(79890)4399
							B(ZnHL)=12.01		
							B(ZnH2L2)=24.94		

****

C11H25N3O L (7190)
1-(2-Hydroxyethyl)-1,5,9-triazacyclododecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

---
Zn++ gl NaNO3 25°C 0.10M M T K1=7.6 1994KNc (79923)4400
*K(ZnL)=-7.4
K(2ZnH-1L=Zn2H-2L2)=0.8
T: 15-35 C. K1=7.8(15 C), 7.3(35 C). *K(ZnL)=-7.7 (15 C), -7.1(35 C)
K(2ZnH-1L=Zn2H-2L2)=1.0(15 C)
****
C11H25N3O L (6392)
4,7,10-Trimethyl-1-oxa-4,7,10-triazacyclododecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M U K1=10.006 1991ACa (79929)4401
B(ZnH-1L)=2.54
K(ZnL+OH)=6.35
****
C11H25N3O2 L (7052)
1,4-Dioxa-7,11,14-triazacyclohexadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C K1=8.10 1994CDa (79936)4402
K(ZnLOH+H)=8.66
****
C11H25N5O L CAS 91328-02-8 (1605)
1,5,8,11,14-Pentaazacyclohexadecane-2-one;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M M K1=10.7 1990KKa (79947)4403
B(ZnH-1L)=2.3
****
C11H26N4 L CAS 83616-30-2 (868)
1,4,7,10-Tetraazacyclopentadecane; cyclo(-(NH.CH2.CH2)4.CH2.CH2.CH2-)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaNO3 25°C 0.10M C K1=10.70 1987HNa (79972)4404
****
C11H26N4 L CAS 15439-16-4 (7)
1,4,8,12-Tetraazacyclopentadecane; cyclo(-(NH.CH2.CH2.(N.(CH2)3.)3-)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ cal non-aq 25°C 100% U HM 1981GMb (79986)4405
DH(2ZnBr2+L=ZnBrL+ZnBr3)=-151.9.Ternary complexes with C5H5N and CH3CN.
Medium: CH3CN

Zn++ gl KNO3 25°C 0.50M U K1=15.35 1980MPa (79987)4406

Zn++ vlt oth/un 25°C 0.20M U H K1=15.0 1977KKa (79988)4407
DH(K1)=-34.3 kJ mol-1
****
C11H26N4 L CAS 124099-97-4 (5396)
N,N'-Bis(2-aminopropyl)-1,4-diazacycloheptane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaNO3 25°C 0.10M U K1=8.17 1990HNa (80003)4408
****
C11H26N4O L CAS 252191-58-5 (7607)
1-(3-Hydroxypropyl)-1,4,7,10-tetraazacyclododecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl R4N.X 25°C 0.10M C K1=13.7 1999DWa (80007)4409
K(ZnL=ZnH-1L+H)=-8.3
Medium: 0.1 M NEt4ClO4
****
C11H26N4O L CAS 73396-34-6 (7856)
1-Oxa-4,7,11,14-tetraazacyclohexadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaNO3 25°C 0.10M U K1=11.72 1990HWa (80014)4410
****
C11H27N5 L CAS 29783-72-0 (98)
1,4,7,10,13-Pentaazacyclohexadecane; cyclo(-(NH.CH2.CH2)5.CH2-)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.20M M H K1=17.9 1978KKb (80027)4411
B(ZnHL)=21.6
DH1=-56.5 kJ mol-1
****
C11H30N6 L CAS 65845-29-6 (4822)
2,2',2",2"'-(Trimethylenedinitrilo)tetrakis(ethylamine);

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ EMF KNO3 25°C 0.10M U H K1=14.86 1971PWa (80048)4412
K(Zn+HL)=12.25
K(ZnL+H)=7.65
K(ZnHL+L=ZnL+HL)=2.62
By calorimetry: DH(K1)=-50.3 kJ mol-1,DS=115.4 J K-1 mol-1; DH(Zn+HL)=-51.4,
DS=61.9; DH(ZnL+H)=-47.1, DS=-12.1; DH(ZnHL+L=ZnL+HL)=1.08, DS=46.4

Zn++ EMF KNO3 20°C 0.10M U K1=15.01 1971PWa (80049)4413
K(ZnL+Zn)=2.17
K(Zn+HL)=12.42

K(ZnL+H)=7.79
****
C11H30N6 L (6595)
5-(4'-Amino-2'-azabutane)-5-methyl-3,7-diazanonane-1,9-diamine;
CH3.C(CH2.NH.CH2.CH2.NH2)3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.50M M K1=17.0 1991HLa (80056)4414
K(ZnL+H)=6.8
K(ZnHL+H)=5.9
****
C12H6O2Cl4S H2L CAS 97-18-7 (4944)
Bithionol; Cl2.C6H2(OH).S.C6H2(OH).Cl2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 25°C 75% U K1=8.08 B2=13.94 1970FGa (80094)4415
Medium: 75% EtOH, 1.0 M NaClO4
****
C12H7N2Cl L CAS 7089-68-1 (3965)
2-Chloro-1,10-phenanthroline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp NaClO4 25°C 0.05M U T H K1=3.1 1989LDa (80127)4416
DH(K1)=-19.4 kJ mol-1, DS(K1)=-6 J K-1 mol-1

Zn++ sp KCl 25°C 0.10M U K1=3.3 B2=6.60 1971IGa (80128)4417
****
C12H7N2Cl L CAS 4199-89-7 (2751)
5-Chloro-1,10-phenanthroline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 35°C 0.10M C M K1=4.67 B2= 9.27 1998LYa (80138)4418
B(ZnLA)=14.60
B(ZnHLA)=20.62
A is 3,3,9,9-tetramethyl-4,8-diazaundecane-2,10-dione dioxime.

Zn++ sp oth/un 25°C 0.10M U K1=5.85 1959BBa (80139)4419
****
C12H7N3O2 L CAS 4199-88-6 (449)
5-Nitro-1,10-phenanthroline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 35°C 0.10M C M K1=4.06 B2= 8.35 1998LYa (80164)4420
B(ZnLA)=14.20
B(ZnHLA)=20.16

A is 3,3,9,9-tetramethyl-4,8-diazaundecane-2,10-dione dioxime.

Zn++ gl KNO3 25°C 0.10M C M K1=5.40 1991DAc (80165)4421

Data for ternary complexes with acetohydroxamic acid

Zn++ sp oth/un 25°C 0.10M U K1=5.40 1959BBa (80166)4422

****

C12H8N2 L Phenanthroline CAS 66-71-7 (144)

1,10-Phenanthroline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	vlt	oth/un	20°C	0.01M	C		K1=5.64	B2=10.95	2001DAa	(80335)4423
							B3=15.95			

Medium: 0.01 M acetate buffer. Method: differential pulse polarography.

Zn++	EMF	non-aq	25°C	100%	C	H	K1=5.86	B2=11.10	2001KTa	(80336)4424
							B3=15.2			

Medium: DMF, 0.40 M Et4NClO4. Method: Zn/Hg electrode. By calorimetry, DH(K1)=-26.5 kJ mol-1, DH(B2)=-55.7, DH(B3)=-83.2.

Zn++	gl	KNO3	35°C	0.10M	C	M	K1=5.06	B2= 9.82	1998LYa	(80337)4425
							B(ZnLA)=14.96			
							B(ZnHLA)=20.98			

A is 3,3,9,9-tetramethyl-4,8-diazaundecane-2,10-dione dioxime.

Zn++	cal	non-aq	25°C	100%	U	H	K1=3.8	B2=7.2	1995KOa	(80338)4426
							B3=10.0			

Medium: 4-Methylpyridine, 0.1 M n-Bu4NClO4. DH(K1)=-25.4 kJ mol-1, DH(B2)=-45, DH(B3)=-54.4

Zn++	gl	KNO3	25°C	0.10M	C	M	K1=6.40	B2=12.20	1991DAc	(80339)4427

Data for ternary complexes with acetohydroxamic acid

Zn++	gl	KNO3	25°C	0.10M	C	M	K1=6.40		1990DAc	(80340)4428
							K(ZnL+A)=4.99			
							B(ZnAL)=11.39			

HL: benzohydroxamic acid

Zn++	gl	NaNO3	35°C	0.10M	U	M	K1=6.25		1985KSc	(80341)4429
							K(ZnL+CMP)=3.76			

H2CMP=cytidine-5'-monophosphoric acid

Zn++	gl	diox/w	25°C	50%	U	M	K1=7.35	B2=13.93	1984ABb	(80342)4430
							B(ZnL(PFHA))=14.00			
							B(ZnL(PTHA))=14.21			

PFHA=N-phenyl-2-furylhydroxamate, PTHA=N-phenyl-2-thenohydroxamate

---

Zn++	gl	NaClO4	35°C	0.10M	U		K1=6.32	B2=11.93	1983ABb	(80343)4431

```
Zn++       sp  NaClO4 25°C 0.20M U  I     K1=3.49        1983EBa (80344)4432
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 35°C 0.10M U        K1=5.49   B2=10.30  1980ABb (80345)4433
Values given by the same author (reference 83AB) differ by more than 1 log
unit in the same conditions: K1 = 6.32, B2 = 11.93
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.20M C        K2=5.97        1979MBa (80346)4434
-------------------------------------------------------------------------------
Zn++       gl  KNO3   35°C 0.10M C    M   K1=5.94        1979MTb (80347)4435
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  20°C 0.10M C    M   K1=6.55        1978MSd (80348)4436
                                          B(ZnL(ATP))=11.87
-------------------------------------------------------------------------------
Zn++       vlt KNO3   25°C 0.10M U  I     K1=6.55   B2=12.35  1978QCb (80349)4437
                                          K3=5.20
In water saturated propylene carbonate K1=6.5, K2=6.3, K3=5.1
-------------------------------------------------------------------------------
Zn++       sp  NaClO4 25°C  1.0M C        K1=6.52        1978YOa (80350)4438
                                          K(Zn+HL=ZnL+H)=1.21
-------------------------------------------------------------------------------
Zn++       EMF KNO3   30°C 0.10M U    M                  1977MSa (80351)4439
                                          K(ZnL+Gly)=4.71
                                          K(ZnL+Ala)=4.53
                                          K(ZnL+nor-Leu)=4.34
                                          K(ZnL+Gly+OH)=9.92
-------------------------------------------------------------------------------
Zn++       gl  KNO3   30°C 0.10M M    M                  1977MSd (80352)4440
                                          K(ZnL+His)=5.93
-------------------------------------------------------------------------------
Zn++       ISE alc/w  25°C  50%  U        K1=5.83   B2=11.60  1972BBa (80353)4441
                                          B3=16.34
Medium: 50% EtOH, 0.15 M K2SO4. In aqueous soln: K1=6.22, B2=11.57, B3=16.59
-------------------------------------------------------------------------------
Zn++       EMF KNO3   30°C 0.10M U    M                  1972STa (80354)4442
                                          B(ZnL(en))=4.87
                                          B(ZnLA)=5.26
A=1,2-diaminopropane
-------------------------------------------------------------------------------
Zn++       cal oth/un 25°C  0.0  U        K1=6.17   B2=12.08  1970EAa (80355)4443
                                          K3=5.25
-------------------------------------------------------------------------------
Zn++       ISE NaNO3  25°C 0.50M U        K1=6.73        1967SPa (80356)4444
-------------------------------------------------------------------------------
Zn++       cal NaNO3  20°C 0.10M U   H                  1963ANb (80357)4445
DH(K1)=-31.4 kJ mol-1, DS=18.4 J K-1 mol-1; DH(B2)=-62.7, DS=23.0;
DH(B3)=-80.7, DS=59.8
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  20°C 0.10M U        K1=6.55   B2=12.35  1963ANg (80358)4446
                                          K3=5.20
-------------------------------------------------------------------------------
```

```
Zn++       dis KCl    25°C 0.10M U        K1=6.30   B2=11.95  1962IMa (80359)4447
                                          K3=5.10
-------------------------------------------------------------------------------
Zn++       EMF NaNO3  20°C 0.10M U        K1=6.40        1959ANc (80360)4448
-------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U        K1=6.36   B2=12.00  1959BBa (80361)4449
                                          K3=5.20
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K2=5.9         1956YSb (80362)4450
                                          K3=4.8
-------------------------------------------------------------------------------
Zn++       sp  oth/un 25°C 0.10M U        K1=6.5    B2=11.95  1955IMa (80363)4451
                                          K3=5.10
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=6.43   B2=12.15  1951KLa (80364)4452
                                          K3=4.85
*******************************************************************************
C12H8N2                 L                       (6092)
9,10-Phenanthroline;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       vlt NaNO3  25°C 0.50M U T H    K1=2.75   B2=5.44   1988GRa (80543)4453
DH(K1)=-17.3 kJ mol-1, DS(K1)=-2.9 J K-1 mol-1; DH(B2)=31.15, DS(B2)=0.96
*******************************************************************************
C12H8N4O4S2           H2L                     CAS 3385-61-8  (2586)
7-(2-Thiazolylazo)-8-hydroxyquinoline-5-sulfonic acid;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       sp  diox/w 25°C  50%  U        B2=16.95       1977RIa (80555)4454
*******************************************************************************
C12H8O2Cl2S           H2L                     CAS 97-24-5  (4946)
Fentichlor; Cl.C6H3(OH).S.C6H3(OH).Cl
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  alc/w  25°C  75%  U        K1=9.07   B2=13.94  1970FGa (80561)4455
Medium: 75% EtOH, 1.0 M NaClO4
*******************************************************************************
C12H9NO3               HL                      CAS 63098-85-1  (6279)
2-(N-2'-Furfuralideneimino)benzoic acid; C4H3O.CH:N.C6H4.COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M U TI     K1=3.22        1978SKg (80579)4456
*******************************************************************************
C12H10N2O              HL                      CAS 10354-53-7  (3970)
2-Benzoylpyridine oxime; C5H4N.C(:N.OH).C6H5
-------------------------------------------------------------------------------
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```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  mixed  40°C  40%  U TIH    K1=7.91   B2=14.61  1965SSa (80657)4457
Medium: 40% acetone, 0.05 M NaClO4. K1=8.20(20 C),8.15(30 C); K2=6.75(20 C),
6.70(40 C). I=0-0.1. At I=0,DH(K1)=-26.3 kJ mol-1,DS=71; DH(K2)=-2.6,DS=122
**************************************************************************
C12H10N2O              HL                      CAS 1823-47-8  (3969)
2-Salicylideneaminopyridine; (2-OH).C6H4.CH:N.C5H4N
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U        K1=5.8    B2=10.1   1962GNb (80669)4458
**************************************************************************
C12H10N2O2            H2L                      CAS 2050-14-8  (3378)
2,2'-Dihydroxyazobenzene; HO.C6H4.N:N.C6H4.OH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  75%  U        K1=19.9        1998FHa (80697)4459
Medium: 75% (v/v) dioxane/water; 0.1 M KNO3.
**************************************************************************
C12H10N2O2            H2L                      CAS 2050-15-9  (1108)
2,4-Dihydroxyazobenzene; C6H5.N:N.C6H3(OH)2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U        K1=10.8?  B2=22.7   1962GNb (80710)4460
**************************************************************************
C12H10N2O4S           H2L                        (7497)
4-(2-Hydroxy-1-phenylazo)-benzenesulfonic acid; C6H4(OH).N=N.C6H4.SO3H
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  NaNO3  20°C  0.1M C                        1998IEa (80727)4461
                                      K(Zn+HL=ZnH-1L+2H)=-13.0
**************************************************************************
C12H10N2S               L                      CAS 13225-84-8  (1993)
2-Thiopicolinanilide; C5H4N.(C:S).NH.C6H5
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  alc/w  25°C  50%  U        K1=8.04   B2=16.1   1981MMd (80747)4462
                                       B3=24.6
**************************************************************************
C12H10N3OBr            HL                      CAS 5756-88-7  (4001)
1-(4'-Bromophenyl)-3-hydroxy-3-phenyltriazene;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  70%  U        K1=7.64   B2=13.94  1965PSd (80752)4463
```

Medium: 70% dioxan, 0.1 M KCl
****
C12H10N3OCl HL CAS 52756-05-6 (3998)
1-(2'-Chlorophenyl)-3-hydroxy-3-phenyltriazene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 70% U K1=7.26 B2=13.17 1964PSg (80759)4464
Medium: 70% dioxan, 0.1 M KCl
****
C12H10N3OCl HL CAS 5756-86-5 (3999)
1-(4'-Chlorophenyl)-3-hydroxy-3-phenyltriazene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 70% U K1=7.41 B2=13.53 1964PSb (80765)4465
Medium: 70% dioxan, 0.1 M KCl
****
C12H10N6O4S H2L CAS 77327-19-6 (8343)
2-[4-Amino-3-(1,2,4-triazolylazo)]napthol-4-sulphonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 30°C 0.10M U T K1=5.10 B2= 8.97 1981GMi (80777)4466
Also data for 40-50 C.
****
C12H11NOS HL Thionalide CAS 93-42-5 (4002)
2-Mercapto-N-(2'-naphthyl)acetamide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 20°C 75% U K1=7.8 B2=14.9 1968BKb (80815)4467
Medium: 75% dioxan, 0.1 M NaClO4
****
C12H11NO9 H5L (3975)
N-(2',5'-Dicarboxy-4'-hydroxyphenyl)iminodiethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M U 1967UKa (80847)4468
K(Zn+HL)=9.19
K(Zn+H2L)=3.20
****
C12H11N3O HL CAS 2824-60-4 (3972)
1-Pyridyl-3-(2'-hydroxyphenyl)-1,2-diazaprop-2-ene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 25°C 50% U K1=11.1 1967ANd (80867)4469
Medium: 50% MeOH, 0.1 M NaClO4

****

C12H11N3OS HL (6787)
2-Hydroxy-1-naphthaldehyde thiosemicarbazone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	20°C	75%	U		K1=8.35 B2=14.94	1992SSc	(80883)4470

Medium: 75% v/v dioxan/H2O and other mixtures, 0.1 M NaClO4

****

C12H11N3O2 HL CAS 50536-09-5 (6323)
2-Hydroxy-1-naphthaldehyde-semicarbazone; HO.C10H6.CH:N.NH.CO.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	20°C	75%	U		K1=7.82 B2=14.25	1992SSc	(80908)4471

Medium: 75% v/v dioxan/H2O and other mixtures, 0.1 M NaClO4

Zn++	gl	diox/w	30°C	75%	U		K1=8.90	1975MKa	(80909)4472

****

C12H11N3O4S H2L (4003)
3-Hydroxy-3-phenyl-1-(4'-sulfonyl)triazene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	70%	U		K1=6.52 B2=11.85	1964PSf	(80937)4473

Medium: 70% dioxan, 0.1 M KCl

****

C12H12NO3Cl HL (1055)
2-Chloro-4-dimethylamino-benzylidenepyruvic acid; (CH3)2N.C6H3Cl.CH:CH.CO.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	NaClO4	25°C	0.50M	C		K1=1.136	1984MTa	(80958)4474

****

C12H12NO6Cl H3L (4004)
(alpha-Carboxy-4'-chlorobenzyl)iminodiethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	20°C	0.10M	U		K1=9.51	1966IMb	(80980)4475

****

C12H12N2 L CAS 4916-40-9 (4895)
1,2-Bis(2-pyridyl)-ethane; C5H4N.CH2.CH2.C5H4N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	20°C	0.10M	U		K1=1.4	1970BAa	(80988)4476
							K(Zn+HL)=1.0		

****

C12H12N2 L (6630)

1,2-Bis(4-pyridyl)ethane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	non-aq	25°C	100%	U	HM	K(Zn2A+L=Zn2AL)=2.04 K(ZnB+L=ZnBL)=4.51 K(Zn2C+L=Zn2CL)=6.97	1992UNa (80993)	4477

Medium: CHCl3. A,C=substituted porphyrins, B=substituted porphyrin dimer.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	non-aq	?	100%	U	M	K(ZnA+L)=3.63	1990AHb (80994)	4478

Medium: CH2Cl2. A=biphenyl capped mesoporphyrin. Data for other porphyrin Zn complexes

****

C12H12N2 L CAS 1134-35-6 (3375)
4,4'-Dimethyl-2,2'-bipyridyl; CH3.C5H3N.C5H3N.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=6.0 B2=11.0 K3=4.0	1956YSb (81005)	4479

****

C12H12N2O HL CAS 70301-52-9 (1940)
2-(Hydroxyphenyliminomethyl)pyridine; C5H4N.CH2.NH.C6H4.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	EMF	KNO3	20°C	0.10M	U		K1=7.29 B2=11.50	1978CSa (81022)	4480
Zn++	gl	diox/w	25°C	50%	U		K1=10.8 B2=18.8	1962GNb (81023)	4481

****

C12H12N2O2 HL CAS 4173-74-4 (4915)
1-Phenyl-3-methyl-4-acetylpyrazol-5-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	dis	NaClO4	?	0.10M	U		K1=2.20 B2=5.32	1971NSb (81038)	4482

****

C12H12N2O3 HL Nalidixic acid CAS 389-08-2 (1401)
1-Ethyl-1,4-dihydro-7-methyl-4-oxo-1,8-naphthyridine-3-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	oth/un	25°C	0.05M	C		K1eff=3.80	2000MPa (81059)	4483

Medium: 0.05 M ethanoate buffer, pH=5.5. Method: spectrofluorimetry.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	mixed	25°C	75%	U		K1=5.43	1998SJb (81060)	4484

Medium: 75% DMSO/H2O, 0.10 M NaClO4.

```
--------------------------------------------------------------------------------
Zn++       sp  KCl    25°C 0.10M U        K1=3.8         1978TSb (81061)4485
********************************************************************************
C12H12N2O4            H2L                     CAS 63409-56-3  (8441)
3-(2-Carboxyphenylazo)pentane-2,4-dione;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  25%  M        K1=8.45        1985EEa (81092)4486
********************************************************************************
C12H12N2O4Cl2           L                     CAS 53-85-0  (8151)
5,6-Dichloro-1-(beta-D-ribofuranosyl)benzimidazole;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.50M M        K1=0.86        1998KSd (81097)4487
********************************************************************************
C12H12N4                L                       (3958)
1-(2'-Pyridyl)-3-(6''-methyl-2''-pyridyl)-1,2-diazaprop-2-ene;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  60°C  0.0  M TI     K1=5.79   B2=11.04  1969GGb (81115)4488
Medium:0 corr. (5C):K1=6.68,B2=12.20,(15C):K1=6.40,B2=11.93,(25C):K1=6.19,
B2=11.67,(30C):K1=6.13,B2=11.54,(40C):K1=6.0,B2=11.34,(50C):K1=5.89,B2=11.15
********************************************************************************
C12H12N4O2             HL    AHMP            CAS 62201-49-4  (7697)
4-(4-Acetophenyl)hydrazono-3-methyl-2-pyrazolin-5-one;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  alc/w  25°C  50%  U T H    K1=6.4    B2=12.52  1999EEa (81124)4489
Medium: 50%(v/v) EtOH/H2O, 0.10 M KCl.  DH(K1)=9.57 kJ mol-1,
DS(K1)=155 J K-1 mol-1; DH(K2)=19.2 kJ mol-1, DS(K2)=181 J K-1mol-1.
********************************************************************************
C12H12N8B              HL                      CAS 40250-95-1  (7937)
Tetrakis(pyrazolyl)borate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       dis non-aq 25°C 100%  C                        2001KSb (81141)4490
                                          K(Zn+2HL=ZnL2(org)+2H)=3.7
Method: solvent extraction into chloroform.
K: Zn+2HL(org)=ZnL2(org)+2H.
********************************************************************************
C12H12O3               H2L                     CAS 39113-56-9  (794)
1-Phenylhexane-1,3,5-trione; C6H5.CO.CH2.CO.CH2.CO.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
```

Zn++ gl diox/w 30°C 75% U K1=9.19 B2=17.06 1960KFc (81152)4491
****
C12H12O3 HL (6844)
3-Benzoylpenta-2,4-dione; CH3.CO.CH(CO.C6H5)CO.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.20M U K1=4.51 1992CMd (81162)4492
****
C12H13NO HL CAS 36749-37-8 (3978)
8-Hydroxy-2-propylquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl oth/un 25°C 0.0 U K1=8.96 B2=19.45 1966KUc (81174)4493
****
C12H13NO3 HL (1054)
4-Dimethylamino-benzylidenepyruvic acid; (CH3)2N.C6H4.CH:CH.CO.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp NaClO4 25°C 0.50M C K1=1.254 1984MTa (81188)4494
****
C12H13NO3 H2L (5384)
Acetylacetone-anthranilic acid Schiff base

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 50% U K1=4.98 B2=9.27 1971MGa (81215)4495
****
C12H13NO5 H2L CAS 90274-75-2 (3979)
N-(2'-Acetylphenyl)iminodiethanoic acid; CH3.CO.C6H4.N(CH2.COOH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M U K1=7.13 B2=11.10 1965AUa (81229)4496
****
C12H13NO6 H3L CAS 17335-88-5 (3981)
1-(Carboxybenzyl)iminodiethanoic acid; C6H5.CH(COOH).N(CH2.COOH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 20°C 0.10M U K1=9.78 1966IMb (81240)4497
****
C12H13NO8 H5L (7001)
3-Bis-(carboxymethyl)iminomethyl-2,4-dihydroxybenzoic acid;
HOOC.C6H2(OH)2CH2.N(CH2COOH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---

```
Zn++       gl  KCl    25°C 0.10M U                        1977RTb (81248)4498
                                          K(Zn+H2L)=8.8
*******************************************************************************
C12H13NS               HL                      CAS 54421-21-5  (1034)
2-(2-Propyl)-8-mercaptoquinoline;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  non-aq 25°C 100%  U        K1=5.9    B2=11.3   1984UBa (81252)4499
Medium: DMF, 0.1 M LiClO4
*******************************************************************************
C12H13N3                L                      CAS 1539-42-0  (932)
bis-((2-Pyridyl)methyl)-amine (Di-2-picolylamine); C5H4N.CH2NHCH2.C5H4N
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  KNO3   20°C 0.10M C   H    K1=7.63   B2=12.15  1977AHc (81274)4500
Calorimetry:  DH1=-32.0 kJ mol-1, DS1=37.7; DH(B2)=-54.8, DS(B2)=-48.5
-------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M U        K1=6.8         1968GRa (81275)4501
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=7.57   B2=11.93  1968RBa (81276)4502
*******************************************************************************
C12H13N3OS             HL                      CAS 76877-48-0  (1289)
2-(4',5'-Dimethyl-2-thiazolylazo)-4-methylphenol;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  60%  U        K1=7.42   B2=14.72  1981KTa (81298)4503
*******************************************************************************
C12H13N5O4              L    Ethenoadenosine  CAS 39007-51-7  (6331)
N6-Ethenoadenosine;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C        K1=1.51        1983SSc (81316)4504
Using proton nmr: K1=1.54
*******************************************************************************
C12H14N2O2             HL                      CAS 7524-52-9  (215)
Tryptophan methyl ester; C8H6N.CH2.CH(NH2).COOCH3
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       sp  non-aq 15°C 100%  U    M                   1993MEa (81336)4505
                                          K(ZnA+L)=4.01
                                          K(ZnB+L)=3.21
Medium: CHCl3. A=5,15-Bis(2-hydroxy-1-naphthyl)-2,3,7,8,12,13,17,18-octa-
ethylporphine, B=5,15-Bis(2-methoxy-1-naphthyl) deriv. of A
*******************************************************************************
C12H14N2O3             HL                        (6602)
```

2,3-Dehydro-N-phenylalanyl-alanine; NH2.CH(CH2.C6H5)CO.NH.C(COOH):CH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	C		K1=2.67 B(ZnH-1L)=-4.39 B(ZnH-1L2)=-1.35 B(ZnH-2L2)=-9.84	1994JBa (81340)	4506

****

C12H14N4 L (7104)

6,6'-Bis(aminomethyl)-2,2'-bipyridyl;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	C		K1=10.02 K(ZnL+H)=4.86 *K(ZnL)=-9.46	1995WRa (81349)	4507

****

C12H14N4O2 HL CAS 258823-84-6 (9007)

N-(2-Pyridinylmethyl)-L-histidine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	M		K1=15.31	2002YKa (81353)	4508

****

C12H14N4O2S L Sulfadimidine CAS 57-68-1 (6167)

2-(4-Aminobenzolsulfamido)-4,6-dimethylpyrimidine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	alc/w	25°C	50%	C		K1=3.95	1999GAa (81362)	4509

Medium: 50% EtOH/H2O, 0.10 M NaNO3.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	U	M	K(Zn(NTA)+L)=1.49	1988SSg (81363)	4510

****

C12H14N5O7P H2L e-AMP CAS 361-99-9 (6334)

1,N6-Ethenoadenosine-5'-monophosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	C		K1=3.18	1984SSe (81381)	4511

****

C12H14N6O2 L Cyclo-(His-His) CAS 16944-59-5 (5719)

Cyclo-(Histidyl-histidyl)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	M		K1=2.55 B2= 5.45	2001GVa (81391)	4512

****

C12H14O3 HL CAS 543-05-8 (4900)
Ethyl 2-phenylacetoacetate; CH3.CO.CH(C6H5).CO.O.CH2.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=9.79	1973AAa	(81399)4513

****
C12H14O14 H6L CAS 111451-17-3 (5895)
3,6-Dioxaoctane-1,2,4,5,7,8-hexacarboxylic acid; (CH2(COOH).CH(COOH).O.CH(COOH)-)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	C		K1=8.07	1989MMd	(81411)4514
							K(ZnL+H)=4.53		
							K(ZnHL+H)=3.54		
							K(ZnH2L+H)=2.94		
							K(ZnL+Zn)=2.92		

****
C12H15NO2 HL (4924)
2-Pyridoyl pivaloyl methane; C5H4N.CO.CH2.CO.C(CH3)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=10.33 B2=19.33	1972UDa	(81426)4515

Medium: 75% v/v dioxan, 0.01 M Me4NClO4
****
C12H15NO2 HL (4925)
3-Pyridoyl pivaloyl methane; C5H4N.CO.CH2.CO.C(CH3)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=9.45 B2=18.17	1972UDa	(81431)4516

Medium: 75% v/v dioxan, 0.01 M Me4NClO4
****
C12H15NO2 HL (4926)
4-Pyridoyl pivaloyl methane; C5H4N.CO.CH2.CO.C(CH3)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=9.29 B2=17.87	1972UDa	(81437)4517

Medium: 75% v/v dioxan, 0.01 M Me4NClO4
****
C12H15NO4S H2L Salicyl-Met CAS 65055-24-5 (6176)
N-Salicyl-methionine; HO.C6H4.CO.NH.CH(CH2.CH2.S.CH3)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	alc/w	25°C	50%	U		K1=3.76 B2= 7.26	1989MSi	(81483)4518
							B(ZnH-1L)=-5.66		
							K(Zn+OH+L)=8.34		

Medium: 50% v/v EtOH/H2O, 0.2 M NaNO3.

****

C12H15NO5 H3L (4930)

1-Hydroxy-4-methylphenyl-2-methyleneiminodiethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	U		K1=13.1 K(Zn+HL)=8.0	1977RTb (81490)	4519
Zn++	gl	oth/un	25°C	0.0	U		K1=13.10	1970TTb (81491)	4520

****

C12H15NO6 H2L (4931)

2-(Bis(2-hydroxyethyl)amino)-1,4-dibenzoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	oth/un	25°C	0.10M	U		K1=2.40	1973WUa (81514)	4521

****

C12H15NO6S H2L CAS 34605-45-3 (4959)

4-Toluenesulfonyl glutamic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	C	M	K(Zn+H-1L+H)=15.12 K(Zn+H-1L+2H)=19.56	1999BMa (81519)	4522
Zn++	vlt	KCl	25°C	0.10M	U		B3=14.02	1968RFa (81520)	4523

Additional method: polarography. Also data for ternary complexes with bipyridine.

****

C12H15N5O HL (4920)

2-(5-Methyl-4-imidazolylazo)-4-dimethylaminophenol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U		K1=11.7 B2=21.30	1968YTa (81533)	4524

Medium: 50% dioxan, 0.1 M KNO3

****

C12H16N2O3 HL Ala-Phe CAS 3061-90-3 (6981)

Alanyl-phenylalanine; H2N.CH(CH3)CO.NH.CH(CH2.C6H5)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C	T	K1=3.29	2000RNb (81570)	4525
Zn++	gl	KNO3	20°C	0.5M	U		K1=2.95	1974KHb (81571)	4526

Data for 35 and 45 C.

****

C12H16N2O8 H4L (6460)
1,4-Diaminobut-2-yne-N,N,N',N'-tetraethanoic acid;
(HOOC.CH2)2N.CH2.CC.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	U		K1=9.30		1979TSa (81598)	4527
							K(Zn+HL)=6.48			
							K(Zn+ZnL)=5.8			

****

C12H16N2O8S4 H6L (7852)
N,N'-Bis(dithiocarboxy)-N,N'-bis-1,1'-(1,2-dicarboxyethyl)ethylenediamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	20°C	0.1M	U		K1=14.5		1999SAa (81613)	4528

****

C12H16N4O4 L PgHisOMe CAS 21575-88-6 (718)
L-Pyroglutamyl-histidine methyl ester;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	C		K1=2.12		1989BKa (81622)	4529
							K(Zn+HL=ZnL+H)=-4.23			

****

C12H16N5O13P3 H4L e-ATP CAS 37482-17-0 (5714)
1,N6-Ethenoadenosine 5'-triphosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	U		K1=5.44		1986SSb (81627)	4530
							K(Zn+HL)=3.26			
							K(ZnL+H)=4.3			
							*K(ZnL(H2O))=-9.0			

****

C12H16N6O3 HL His-His CAS 306-14-9 (846)
Histidyl-histidine; H2N.CH(CH2.C3H3N2).CO.NH.CH(CH2.C3H3N2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=5.79	B2= 9.18	2002VVa (81652)	4531
							B(ZnHL)=12.02			
							B(ZnH-1L)=-3.18			
Zn++	gl	KNO3	37°C	0.15M	U	H	K1=4.97	B2=9.61	1976APa (81653)	4532
							K(Zn+H2L)=2.31			
							K(Zn+HL)=4.06			
							K(Zn+2HL)=7.53			
							K(2ZnL=Zn2L2)=3.37			

K(Zn+HL+L)=8.99, K(ZnHL+ZnL)=2.96

Zn++ gl KCl 25°C .058M U T K1=4.30 B2=8.20 1961SMa (81654)4533
At 0 C K1=10.50, K2=6.30 ?

****

C12H16O2 HL CAS 5581-75-9 (5590)
6-Phenylhexanoic acid; C6H5.(CH2)5.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	C	I M	K1=2.47	1985BSd (81665)	4534
							K(Zn(phen)+L)=2.50		

In 50% EtOH: K1=1.96, K(Cu(phen)+L)=2.10

****

C12H16O4S6 L CAS 66785-63-5 (7805)
1,4,7,10,13,16-Hexathiacyclooctadecane-2,3,11,12-tetraone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	con	none	25°C	0.0	C	T H	K1=4.76	1998GRa (81687)	4535

DH(K1)=-45.8 kJ mol-1, DS(K1)=-62 J K-1 mol-1.
Also data for 15-45 C.

****

C12H17NOS HL CAS 34282-27-4 (3393)
N-(2,6-Diethylphenyl)mercaptoacetamide; HS.CH2.CO.NH.C6H3(CH2.CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=10.18 B2=19.25	1961MAe (81709)	4536

****

C12H17N3O10 H4L Asp-Asp-Asp (6445)
Aspartyl-aspartyl-aspartic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=4.55	1995KLa (81734)	4537
							B(ZnH-1L)=-4.58		
							B(ZnH-2L)=-13.46		

****

C12H17N4OClS HL Vitamin B1 CAS 59-43-8 (2777)
Thiamine, Aneurine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	35°C	0.10M	C		K1=2.30	1999DSb (81743)	4538

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	35°C	0.10M	U	M	K1=2.30 B2=4.10	1989SRc (81744)	4539
							K(ZnL+thymine)=4.97		
							K(ZnL+uracil)=4.35		

****

C12H17N4O4PS H2L CAS 495-23-8 (895)
Thiamine orthophosphoric acid, Aneurine monophosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	35°C	0.10M	C		K1=3.54	1997PSb (81759)	4540
Zn++	gl	NaCl	23°C	0.15M	U		K1=2.35	1989DBb (81760)	4541
Zn++	gl	KNO3	45°C	0.10M	U	T	K1=3.24 K(ZnL+H)=2.46	1981TTa (81761)	4542

5 C: K1 = 2.93

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	35°C	0.10M	U		K1=3.54 K(Zn+HL)=2.73	1978KBa (81762)	4543

****

C12H18N2O5S H2L CAS 80459-15-0 (1595)
2-Nitroso-5-(N-propyl-3-sulfopropylamino)phenol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=5.56 B2=10.06	1988YSc (81801)	4544

****

C12H18N2O8 H2L CAS 93031-52-8 (5829)
1,4-Dioxa-7,10-diazacyclododecane-5,12-dione-7,10-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	R4N.X	25°C	0.10M	C		K1=8.57	2002DCb (81827)	4545

Medium: 0.10 M Me4NNO3.

****

C12H18N2O8 H4L (8011)
trans-1,4-Diaminobuten-2-N,N,N',N'-tetraethanoic acid

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	20°C	0.10M	U		K1=10.80 K(Zn+HL)=7.52 K(ZnL+Zn)=5.4	1976TTb (81888)	4546

****

C12H18N2O10 H5L CAS 105147-09-9 (1081)
1-Carboxy-1,3-diaminopropane-N,N,N',N'-tetraethanoic acid;
(HOOCCH2)2NCH(COOH)(CH2)2N(CH2COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=16.94 K(Zn+H2L)=4.62 K(Zn+HL)=10.31 B(Zn2L)=19.49	1988MGa (81906)	4547

K(ZnL+H)=4.52
K(ZnHL+H)=2.92
****
C12H18N4O7P2S H3L Cocarboxylase T CAS 136-09-4 (894)
Thiamine pyrophosphoric acid, Aneurine pyrophosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	U		2000MLa (81926)		4548
							K(2Zn+2HL+2H=Zn2H4L2)=20.66		
							K(2Zn+2HL+H=Zn2H3L2)=15.50		
							K(2Zn+2HL=Zn2H2L2)=10.11		
Zn++	gl	KNO3	35°C	0.10M	C	M	K1=3.70	1999PSb (81927)	4549
Ternary complexes with many aminoacids.									
Zn++	gl	NaCl	23°C	0.15M	U		K1=4.54	1989DBb (81928)	4550
Zn++	gl	KNO3	45°C	0.10M	U	T	K1=4.20	1981TTa (81929)	4551
							K(ZnL+H)=2.76		
5 C: K1 = 3.85									
Zn++	gl	KNO3	35°C	0.10M	U		K1=4.55	1978KBa (81930)	4552
							K(Zn+HL)=2.89		

****
C12H18N4O9 H3L CAS 43101-37-7 (2935)
Tetraglycine-N,N-diethanoic acid; (HOOC.CH2)2N.CH2.CO.Gly-Gly-Gly-OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=7.00	1974MMb (81949)	4553
							K(ZnL+H)=3.41		

****
C12H19NOS2 L (5424)
2-(2-Pyridyl)-1,3-dithioethyl-2-propanol; C2H5.S.CH2.C(OH)(C5H4N).CH2.S.C2H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U		K1=1.20	1981CBa (81973)	4554

****
C12H19NO6 H3L (3991)
N-(2'-Carboxycycloheptyl)iminodiethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	20°C	0.10M	U		K1=12.28	1966IMa (81978)	4555

****
C12H20N2O2 H2L CAS 6310-76-5 (3387)
4,4'-Ethylenedi-iminodi(pentan-2-one);

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  alc/w  25°C  0.2M U        K1=5.96        1999MTc (82003)4556
Medium: 0.2 M KCl in 3:7 v/v H2O/EtOH
*************************************************************************
C12H20N2O6            H3L                    CAS 111652-02-9  (8144)
Azetidine-2-carboxy-1-(4-azaheptane-1,5-dicarboxylic acid);
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=10.5        1989ARa (82009)4557
*************************************************************************
C12H20N2O8            H4L                    CAS 1798-13-6  (4935)
1,2-Diaminobutane-N,N,N',N'-tetraethanoic acid;
(HOOC.CH2)2N.CH2.CH(C2H5).N(CH2.COOH)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       vlt KNO3   20°C 0.10M U        K1=18.23       1968NLa (82014)4558
*************************************************************************
C12H20N2O8            H4L                    CAS 40623-42-5  (1101)
1,2-Diaminoethane-N,N'-di(2-pentane-1,5-dioic acid); (CH2NHCH(COOH)CH2CH2COOH)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       ISE KNO3   25°C 0.10M U        K1=10.25       1972GBe (82047)4559
-------------------------------------------------------------------------
Zn++       gl  KNO3   30°C  1.0M U        K1=7.15        1972TSf (82048)4560
*************************************************************************
C12H20N2O8            H4L                    CAS 61368-60-3  (3389)
1,2-Diaminoethane-N,N'-diethanoic-N,N'-di-2-propanoic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       vlt KNO3   20°C 0.10M U        K1=16.22       1976NKa (82118)4561
-------------------------------------------------------------------------
Zn++       gl  KNO3   20°C 0.10M U        K1=16.02       1966MKb (82119)4562
*************************************************************************
C12H20N2O8            H4L                    CAS 40623-42-5  (3388)
1,2-Diaminoethane-N,N'-diethanoic-N,N'-dipropanoic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KCl    30°C 0.10M U        K1=14.5        1952CMc (82154)4563
*************************************************************************
C12H20N2O8            H4L                    CAS 2458-58-4  (922)
1,4-Diaminobutane-N,N,N',N'-tetraethanoic acid; (HOOC.CH2)2N.(CH2)4.N(CH2.COOH)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
```

```
Zn++       cal KNO3   20°C 0.10M U   H                    1964ANa (82196)4564
DH(K1)=-14.5 kJ mol-1, DS=237 J K-1 mol-1
--------------------------------------------------------------------------------
Zn++       gl  KNO3   20°C 0.10M U        K1=15.04        1964LAa (82197)4565
                                         K(Zn+HL)=7.42
********************************************************************************
C12H20N2O8            H3L    Mugineic acid    CAS 69199-37-7  (9036)
2-Carboxy-a-[(3-carboxy-3-hydroxypropyl)amino]-b-hydroxy-1-azetidinebutanoic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   20°C 0.10M U        K1=10.7         1981STc (82245)4566
********************************************************************************
C12H20N2O8            H4L    BDTA             CAS 868-43-9  (1742)
DL-2,3-Diaminobutane-N,N,N',N'-tetraethanoic acid;
(HOOC.CH2)2N.CH(CH3).CH(CH3).N(CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       ISE KNO3   20°C 0.10M U        K1=18.92        1971ISa (82262)4567
                                         K(Zn+HL)=2.57
--------------------------------------------------------------------------------
Zn++       vlt KNO3   20°C 0.10M U        K1=19.07        1966DMa (82263)4568
--------------------------------------------------------------------------------
Zn++       oth KNO3   20°C 0.10M U        K1=18.5         1965JMb (82264)4569
Method: electrophoresis
--------------------------------------------------------------------------------
Zn++       vlt KNO3   20°C 0.10M U        K1=18.85        1964MNa (82265)4570
********************************************************************************
C12H20N2O8            H4L                      CAS 22968-57-6  (3992)
meso-2,3-Diaminobutane-N,N,N',N'-tetraethanoic acid;
(HOOC.CH2)2N.CH(CH3).CH(CH3).N(CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       ISE KNO3   20°C 0.10M U        K1=17.35        1971ISa (82365)4571
                                         K(Zn+HL)=3.52
--------------------------------------------------------------------------------
Zn++       vlt KNO3   20°C 0.10M U        K1=17.13        1966DMa (82366)4572
--------------------------------------------------------------------------------
Zn++       oth KNO3   20°C 0.10M U        K1=18           1965JMb (82367)4573
Method: electrophoresis
--------------------------------------------------------------------------------
Zn++       vlt KNO3   20°C 0.10M U        K1=17.35        1964MNa (82368)4574
********************************************************************************
C12H20N2O8S           H4L    TEDTA            CAS 923-74-0  (3394)
2,2'-Thiobis(ethyliminodiethanoic acid); S(CH2.CH2.N(CH2.COOH)2)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
```

Zn++ gl KNO3 20°C 0.10M U H K1=13.44 1964ANa (82438)4575
K(Zn+HL)=8.05
By calorimetry: DH(K1)=-15.5 kJ mol-1, DS=205 J K-1 mol-1

Zn++ gl KCl 20°C 0.10M U K1=13.17 1964PCa (82439)4576
****
C12H20N2O9 H4L EEDTA CAS 923-73-9 (2112)
Oxa-bis(ethyleneimino)diethanoic acid; ((HOOC.CH2)2N.CH2.CH2)2O

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ cal KNO3 25°C 0.10M U H 1965WHa (82505)4577
DH(K1)=-31.8 kJ mol-1, DS=194 J K-1 mol-1

Zn++ gl KNO3 20°C 0.10M U H K1=15.3 1964ANa (82506)4578
K(Zn+HL)=8.5
By calorimetry: DH(K1)=-25.0 kJ mol-1, DS=207 J K-1 mol-1

Zn++ gl KCl 20°C 0.10M U K1=15.25 1964PCa (82507)4579

Zn++ EMF KNO3 25°C 0.10M U K1=15.3 1960HRa (82508)4580
****
C12H20N2O10 H4L CAS 10258-50-1 (3993)
(2,3-Dihydroxytetramethylenedinitrilo)tetraethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ oth oth/un ? ? U 1967LDa (82579)4581
B(Zn2L)=19.84
Method: high-frequency titration.
****
C12H20N4 L (6709)
3,7,10,16-Tetraazabicyclo[10.3.1]hexadeca-1(16),12,14-triene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C K1=14.27 1993CDa (82603)4582
K(Zn(OH)L+H)=7.83
****
C12H20N4O3 HL Leu-His CAS 38062-71-4 (5768)
Leucyl-histidine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaNO3 37°C 0.10M C 1984RRc (82611)4583
B(ZnHL)=10.01
B(ZnHL2)=13.65
B(ZnH-1L)=-3.28
****
C12H20N4O6 H2L (7078)

1,4,7,10-Tetraazacyclododeca-2,9-dione-4,7-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	nmr	none	23°C	0	U	M	K(ZnL+HA)=2.1 K(ZnL+B)=2.0	1997IMa (82618)	4584

HA=histamine, B=imidazole

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	C		K1=8.98 K(ZnL+H)=1.47 K(ZnL=ZnH-1L+H)=-9.56 K(ZnH-1L=ZnH-2L+H)=-11.94	1995IOb (82619)	4585

****

C12H20N6O L (5462)

1,9-Bis(4-imidazolyl)-2,8-diaza-5-oxanonane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=9.52	1982BTb (82633)	4586

****

C12H20O8N2 H4L (6908)

2-Methyl-1,2-diaminopropane-N,N,N'N'-tetraethanoic acid;
(HOOC.CH2)2N.CH2.C(CH3)2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	20°C	0.10M	C		K1=17.00	1978NLa (82664)	4587

****

C12H21NO6 H3L (7209)

1-Carboxy-1-aminoheptane-N,N-diethanoic acid; HOOC.CH(C6H13)N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	20°C	0.10M	U		K1=10.21	1985LBc (82688)	4588

****

C12H21N3O6 H3L NOTA (5589)

1,4,7-Triazacyclononane-N,N',N"-triethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=18.3	1975HTa (82722)	4589

By competition with Cd ion.

****

C12H21N3O6 H3L CAS 111769-28-9 (8145)

Azetidine-2-carboxy-1-(4-azaheptane-1-amino-1,5-dicarboxylic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=15.4	1989ARa (82746)	4590

For racemic isomer: K1=12.3

Zn++ gl oth/un 25°C 0.10M M K1=14.7 1983BSd (82747)4591

Medium: 0.10 M KClO4.

****

C12H21N3O6 H3L CAS 31824-09-6 (4936)

cis,cis-1,3,5-Tris(carboxymethylamino)cyclohexane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	U		K1=13.41	1971ZOa (82756)	4592
							K(Zn+HL)=7.87		

****

C12H21N5O3 HL His-Lys CAS 37700-85-9 (5770)

Histidyl-lysine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	37°C	0.10M	C			1984RRc (82764)	4593
							B(ZnHL)=14.78		
							B(ZnH2L2)=28.60		

****

C12H21N7 L (1870)

1,9-Bis(4-imidazolyl)-2,5,8-triazanonane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	cal	KNO3	25°C	0.1M	C	H	K1=13.30	1982TMc (82773)	4594

DH(K1)=-42.6 kJ mol-1

Zn++	cal	KNO3	25°C	0.10M	C			1982TMd (82774)	4595
							DH1=-46.2 kJ/mol		

Zn++	gl	KNO3	25°C	0.10M	C		K1=13.303	1978THb (82775)	4596
							K(ZnL+H)=2.69		

****

C12H22N2O6 H2L (6394)

1,7-Dioxa-4,10-diazacyclododecan-4,10-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	R4N.X	25°C	0.10M	C		K1=12.277	1992ADa (82786)	4597

Medium: 0.1 M Me4NNO3

****

C12H22N2O6 H2L (6641)

7,10-Diaza-1,4-Dioxacyclododecane-7,10-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	R4N.X	25°C	0.10M	C		K1=12.52	1992ADa (82800)	4598

Medium: 0.1 M Me4NNO3

****

C12H22N4O6 H2L ICRF 243 (5772)
DL-NN'-Dicarboxamidomethyl-NN'-dicarboxymethyl-2,3-diaminobutane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	37°C	0.15M	U		K1=11.720 B(ZnH-1L2)=4.254	1985HCa (82830)	4599

****

C12H22N4O6 H2L ICRF 226 CAS 83266-80-2 (8370)
N,N'-(1-Ethyl-1,2-ethanediyl)bis[N-(2-amino-2-oxoethyl)glycine];

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	37°C	0.15M	C		K1=11.219 B(ZnHL)=12.941 B(ZnHL2)=20.849 B(ZnH2L2)=24.316	1982HMb (82839)	4600

****

C12H22N4O6 H2L ICRF 236 (5771)
meso-NN'-Dicarboxamidomethyl-NN'-dicarboxymethyl-2,3-diaminobutane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	37°C	0.15M	U		K1=9.904 B(NiHL)=11.349	1985HCa (82848)	4601

****

C12H23N3O5 H2L (6393)
1-Oxa-4,7,10-triazacyclododecan-4,10-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	R4N.X	25°C	0.10M	C		K1=16.12	1992ADa (82967)	4602

Medium: 0.1 M Me4NNO3

****

C12H23N3O5 H2L CAS 499238-78-7 (8836)
N-Hydroxy-N'-[5-(hydroxymethylamino)-5-oxopentyl]-N-methylpentanediamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.20M	C		K1=7.54 B(ZnHL)=14.02 B(Zn2L3)=21.7	2004FBa (82982)	4603

****

C12H23N3O5 H2L CAS 499238-79-8 (8835)
N-Hydroxy-N'-[6-(hydroxymethylamino)-6-oxohexyl]-N-methylbutanediamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

```
Zn++       gl  KNO3   25°C 0.20M C        K1=8.74        2004FBa (82992)4604
                                          B(ZnHL)=14.00
                                          B(Zn2L3)=23.48
*****************************************************************************
C12H23N3O6            H3L                      CAS 117659-73-1  (8147)
1-Amino-8-methyl-1,5,9-tricarboxy-4,8-diazadecane;
-----------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-----------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=13.7        1989ARa (82999)4605
*****************************************************************************
C12H23N5               L                        (6570)
2-(4-Imidazoyl)-1,5,9-triazacyclododecane;
-----------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-----------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=11.7        1991KKb (83008)4606
*****************************************************************************
C12H24N2               L                        CAS 67483-65-2  (3962)
1,1'-Diaminobicyclohexyl;
-----------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-----------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.10M U        K1=6.35   B2=13.30  1965TSc (83014)4607
*****************************************************************************
C12H24N2O3             HL    Leu-Leu          CAS 36077-41-5  (974)
Leucyl-leucine; H2N.CH(CH2.CH(CH3)2).CO.NH.CH(CH2.CH(CH3)2).COOH
-----------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-----------------------------------------------------------------------------
Zn++       gl  KCl    20°C 0.20M U        K1=2.76   B2=5.27   1982KRc (83037)4608
-----------------------------------------------------------------------------
Zn++       gl  KNO3   20°C  0.5M U        K1=3.00        1974KHb (83038)4609
*****************************************************************************
C12H24N2O4             L                        (6669)
Hexamethylene-N,N'-diethyldihydroxamic acid; CH3CH2N(OH).CO.(CH2)6.CO.N(OH)CH2CH3
-----------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-----------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C                        1993KNa (83048)4610
                                          B(ZnHL)=14.64
                                          B(Zn2L2)=19.00
*****************************************************************************
C12H24N4               L                        CAS 46746-77-4  (107)
5,12-Dimethyl-1,4,8,11-tetraazacyclotetradeca-4,11-diene;
-----------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-----------------------------------------------------------------------------
Zn++       vlt NaClO4 25°C 0.10M U T H    K1=15.00       1981YPa (83063)4611
*****************************************************************************
```

C12H24N4O4 H2L (7522)
1,4,8,11-Tetraazacyclotetradecane-6,13-dicarboxylic acid

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.50M	U		K1=26.3 K(ZnL+H)=5.4 K(ZnHL+H)=4.8 *K(ZnL)=-10.5	1997BLd	(83100)4612

****

C12H24O6 L 18-Crown-6 CAS 17455-13-9 (577)
1,4,7,10,13,16-Hexaoxacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	con	mixed	25°C	90%	C		K1=1.61	2003ISa	(83178)4613

Medium: 90% v/v DMSO/H2O.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	con	alc/w	25°C	40%	C		K1=1.59	2001ISa	(83179)4614

Medium: 40% v/v EtOH/H2O.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	con	none	25°C	0.0	C		K1=0.53	2000KTa	(83180)4615
Zn++	nmr	non-aq	27°C	100%	U	I	K1=2.07	2000SMd	(83181)4616

Competitive method by 7Li nmr. Medium: acetonitrile (AN). Also data for 50% w/w AN/nitrobenzene (K1=2.33) and 50% w/w AN/nitromethane (K1=2.48).

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	alc/w	25°C	100%	C		K1=2.22	1987CBd	(83182)4617

Medium: methanol, 0.10 M Et4NI or Bu4NClO4. Method: polarography.

****

C12H26N2O4 L CAS 41775-36-4 (2470)
1,4,7,13-Tetraoxa-10,16-diazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	R4N.X	25°C	0.10M	C		K1=4.26	1983LCa	(83727)4618

****

C12H26N2O4 L Cryptand 2,2 CAS 23978-55-4 (925)
4,7,13,16-Tetraoxa-1,10-diazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	R4N.X	25°C	0.05M	C		K1=3.0	1997BCc	(83756)4619

Medium: 0.05 M Me4NClO4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	R4N.X	25°C	0.10M	C		K1=3.77	1985CSb	(83757)4620

Medium: 0.10 M Et4NClO4.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	R4N.X	25°C	0.10M	C		K1=4.31	1983LCa	(83758)4621

```
Zn++       gl  alc/w  25°C  95%  C        K1=2.5         1981ANa (83759)4622
Medium: 95% MeOH, 0.1 M Me4NCl
--------------------------------------------------------------------------------
Zn++       gl  alc/w  25°C 100%  C        K1=4.84        1979SAa (83760)4623
                                         B(ZnHL)=13.86
Medium: MeOH, 0.05 M Et4NClO4
--------------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.10M C        K1=3.19        1977ASc (83761)4624
********************************************************************************
C12H26N4O              L                          (7316)
7-Oxa-1,4,10,13-tetraazabicyclo[2(1,13).2.11]heptadecane
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M U        K1=5.81        1987HEa (83942)4625
********************************************************************************
C12H26N12              L                          (7007)
1,10-Di(2-(5-tetraazolyl)ethyl)-1,4,7,10-tetraazadecane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  20°C 0.10M U        K1=14.76       1981ESa (83967)4626
********************************************************************************
C12H26S                L                     CAS 6294-31-3  (5697)
S,S-Dihexylsulfide; C6H13.S.C6H13
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       ISE non-aq 25°C 100%  U        K1=-0.16       1986MMb (84030)4627
Medium: acetone, Bu4NClO4
********************************************************************************
C12H27N3             H3L                     CAS 69881-53-4  (2424)
2,2,4-Trimethyl-1,5,9-triazacyclododecane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M U        K1=7.68        1979RJa (84051)4628
                                         K(ZnL=ZnLOH+H)=-9.56
********************************************************************************
C12H27N3O2             L                          (7053)
1,4-Dioxa-7,11,15-triazacycloheptadecane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=7.09        1994CDa (84056)4629
                                         K(ZnLOH+H)=8.06
********************************************************************************
C12H27N3O3             L    THETAC             (7199)
1,4,7-Tris(hydroxyethyl)-1,4,7-triazacyclononane
--------------------------------------------------------------------------------
```

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	U		K1=12.07	1983SMc (84080)	4630

****

C12H27N3S3 HL TACN-TM (6952)
1,4,7-Tris(2-mercaptoethyl)-1,4,7-triazacyclononane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	C		K1=23.9 B(ZnHL)=34.1 B(ZnH2L)=40.4	1995MWa (84097)	4631

****

C12H27N5O2 HL (7521)
6-Methyl-1,4,8,11-tetraazacyclotetradecane-6-amino-3-carboxylic acid

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.50M	U		K1=14.7 K(ZnL+H)=6.6 K(ZnHL+H)=5.0 *K(ZnL)=-10.8	1997BLd (84109)	4632

****

C12H28N2O9P2 H4L (7242)
1,4,10-Trioxa-7,13-diazacyclopentadecane-7,13-diyldimethylenediphosphonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	R4N.X	25°C	0.10M	C		K1=13.10 B(ZnHL)=19.84 B(ZnH2L)=25.48 B(Zn2L)=16.10 B(Zn2H-1L)=8.39	2000PSa (84146)	4633

Medium: 0.10 M [Et4N]NO3.

Zn++	gl	R4N.X	25°C	0.10M	U		K1=13.25 K(Zn+HL)=6.66 K(Zn+H2L)=5.56	1996BJa (84147)	4634

Medium: 0.1 M Me4NCl

****

C12H28N4 L CAS 76282-33-2 (2883)
1,4,7,10-Tetramethyl-1,4,7,10-tetraazacyclododecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaNO3	25°C	0.10M	U		K1=14.04	1990HWa (84176)	4635

****

C12H28N4 L CAS 24772-41-6 (145)
1,5,9,13-Tetraazacyclohexadecane; cyclo(-(NH.CH2.CH2.CH2)4-)

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M U        K1=13.02       1991LHa (84191)4636
-------------------------------------------------------------------------
Zn++       cal non-aq 25°C 100%  U   HM                  1981GMb (84192)4637
DH(2ZnBr2+L=ZnBrL+ZnBr3)=-152.7. Ternary complexes with C5H5N and CH3CN.
Medium: CH3CN
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U   H    K1=13.05       1980MPa (84193)4638
DH(K1)=-29.7 kJ mol-1, DS(K1)=150.1 J K-1 mol-1
*************************************************************************
C12H28N4                L                          (6828)
1-(3-Aminopropyl)-1,5,9-triazacyclododecane;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C 0.10M M        K1=11.7        1992KKb (84200)4639
*************************************************************************
C12H28N4O               L                          (7305)
1-(2-Hydroxyethyl)-1,4,8,11-tetraazacyclotetradecane;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.10M C         K1=10.3        1997RWa (84205)4640
                                          B(ZnH-1L)=2.0
Medium: Et4NClO4
*************************************************************************
C12H28N4O2              L                      CAS 296-36-6  (2472)
1,10-Dioxa-4,7,13,16-tetraazacyclooctadecane;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       dis non-aq 25°C 100%  C  I                    2004CCa (84221)4641
                                          K(Zn+A+L(org)=ZnAL(org))=11.05
Distribution of ZnA2 from H2O into CH2Cl2. A is nitrate. For the N-tetra-
benzyl- derivative, K'=11.62. Distribution into CHCl3, K=11.88; K'=12.62.
-------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M U        K1=10.51       1990WHa (84222)4642
-------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C        K1=10.51       1989HBa (84223)4643
-------------------------------------------------------------------------
Zn++       gl  R4N.X  25°C 0.10M C        K1=10.90       1983LCa (84224)4644
*************************************************************************
C12H28N4O2              L                      CAS 40025-71-6  (5880)
1,4-Dioxa-7,10,13,16-Tetraazacyclooctadecane;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  NaNO3  25°C 0.10M C         K1=9.52        1989HBa (84242)4645
                                          B(ZnHL)=14.88
```

B(ZnH2L)=20.28
****
C12H29N5 L CAS 82583-20-6 (97)
1,4,7,11,14-Pentaazacycloheptadecane; cyclo(-(NH.C2H4)3.CH2(NH.C2H4)2.CH2-)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.20M M H K1=15.8 1978KKb (84257)4646
B(ZnHL)=20.1
DH1=-53.1 kJ mol-1
****
C12H30N3O9P3 H6L DOPHET CAS 123325-12-2 (227)
1,4,7-Tris(beta-dioxyphosphorylethyl)-1,4,7-triazacyclononane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 1.0M U K1=17.0 1988MKa (84274)4647
K(Zn+HL)=12.9
K(Zn+H2L)=11.1
K(Zn+H3L)=6.9
****
C12H30N4 L (6740)
Tris(2-(dimethylamino)ethyl)amine; N(CH2CH2.N(CH3)2)3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 1.0M U T H K1=9.68 1995CXa (84299)4648
*K(ZnL(H2O))=-8.86
Data for 35 and 45 C. By calorimetry, DH(*K1)=25.5 kJ mol-1, DS(*K1)=-84
J K-1 mol-1.

Zn++ gl NaClO4 25°C 1.00M C K1=9.75 1994AGa (84300)4649
K(Zn+HL)=5.31
****
C12H30N6 L CAS 296-35-5 (143)
1,4,7,10,13,16-Hexaazacyclooctadecane; cyclo(-(NH.CH2.CH2)6-)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.15M C K1=18.70 1989BBa (84316)4650
B(ZnHL)=22.63

Zn++ gl NaClO4 25°C 0.20M U H K1=17.8 1980KKb (84317)4651
DH=-51.9 kJ mol-1, DS=167 J K-1 mol-1
****
C12H30N6 L CAS 212697-43-3 (9176)
1,4,7-Tris(2-aminoethyl)-1,4,7-triazacyclononane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---

```
Zn++       gl  R4N.X  25°C 0.10M C        K1=21.28       2004TBa (84366)4652
                                          K(ZnL+H)=4.13
                                          K(ZnL+OH)=3.4
Medium: 0.1 M N(CH3)4Cl
**************************************************************************
C12H30N6                L                          (6409)
6,13-Dimethyl-1,4,8,11-tetraazacyclotetradecane-6,13-diamine;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.50M U        K1=14.9        1997BLd (84371)4653
                                          K(ZnL+H)=6.8
                                          K(ZnHL+H)=6.0
                                          *K(ZnL)=-10.5
--------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.50M U        K1=16.1        1994LLb (84372)4654
                                          K(ZnL+H)=5.8
                                          K(ZnHL+H)=5.2
                                          K(ZnH-1L+H)=9.6
Data are for the syn isomer.  For the anti isomer, K1=14.9, K(ZnL+H)=6.8,
K(ZnHL+H)=6.0, K(ZnH-1L+H)=10.5.
--------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.50M U        K1=15.0        1991BLa (84373)4655
**************************************************************************
C12H32N4O8P4          H4L                          (7111)
1,4,7,10-Tetraazacyclododecane-1,4,7,10-tetrayltetramethylenetetrakis(phosphinic
acid);
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=14.60       1995BLa (84384)4656
                                          B(ZnHL)=17.22
**************************************************************************
C12H32N4O12P4         H8L    DOTPH            CAS 91987-74-5  (229)
1,4,7,10-Tetraazacyclododecane-N,N',N",N"'-tetramethylenephosphonic acid;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C  1.0M U        K1=24.8        1984KMb (84397)4657
                                          K(Zn+HL)=19.9
                                          K(Zn+H2L)=15.1
                                          K(Zn+H3L)=11.7
                                          K(Zn+H4L)=9.2
**************************************************************************
C12H32N6                L                          (6455)
2,5,8,11,14,17-Hexaazaoctadecane;
CH3.NH.(CH2)2.NH.(CH2)2.NH.(CH2)2.NH.(CH2)2.NH.C(CH2)2.NH.CH3
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
```

Zn++ gl NaClO4 25°C 0.15M C H K1=14.02 1991ABa (84426)4658
B(ZnHL)=21.96
K(Zn+HL)=11.68
DH(K1)=-49.4 kJ mol-1.
****
C12H32N6 L CAS 62708-55-8 (8897)
3,7,10,14-Tetraazahexadecane-1,16-diamine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl R4N.X 25°C 0.10M C H K1=13.84 2002BBg (84433)4659
K(ZnL+H)=6.58
K(ZnHL+H)=6.40
Medium: 0.10 M Me4NCl. By calorimetry, DH(K1)=-64.4 kJ mol-1, DS(K1)=48
J K-1 mol-1; DH(ZnL+H)=-26.3, DS(ZnL+H)=38; DH(ZnHL+H)=-37.2, DS=-2.7.

Zn++ gl R4N.X 25°C 0.10M C H 2002BBg (84434)4660
K(ZnL+OH)=2.66
Medium: 0.10 M Me4NCl. By calorimetry, DH(ZnL+OH)=-0.4 kJ mol-1,
DS(ZnL+OH)=52 J K-1 mol-1.
****
C12H32N6 L CAS 62497-72-7 (8838)
4,7,10,13-Tetraazahexadecane-1,16-diamine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.15M C K1=14.45 2002AGa (84439)4661
K(ZnL+H)=9.27
K(ZnHL+H)=6.11
B(ZnH-2L)=2.66
****
C12H32N6 L (3377)
5-Ethyl-5-(4-amino-2-azabutyl)-1,9-diamino-3,7-diazanonane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M U K1=16.4 1963GCb (84444)4662
K(Zn+HL)=12.1
****
C13H8O3 HL CAS 719-41-5 (3397)
1-Hydroxyxanthone (1-Hydroxy-9-xanthenone)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.10M U K1=6.04 1986DDa (84490)4663
****
C13H9NOBrCl HL (6173)
N-(2-Hydroxy-5-bromobenzylidene)-4-chloroaniline; Cl.C6H4.N:CH.C6H3(OH)Br
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

```
--------------------------------------------------------------------------------
Zn++       gl  mixed  28°C  75%  U        K1=5.07        1988MNb (84530)4664
********************************************************************************
C13H9NOS               HL                          (4945)
2-(2'-Thienyl)-8-hydroxyquinoline; HO.C9H5N.C4H3S
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U        K1=6.61   B2=14.99  1969CBa (84537)4665
Medium: 50% dioxan, 0.1 M NaClO4
********************************************************************************
C13H9NOS               HL                      CAS 3411-95-8  (1683)
2-(2-Hydroxyphenyl)benzothiazole;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  alc/w  20°C  50%  U        K1=<5.7        1959HOa (84545)4666
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U        K1=7.57   B2=13.66  1954CFa (84546)4667
********************************************************************************
C13H9NO2               HL                          (3403)
2-(2'-Hydroxyphenyl)benzoxazole;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  alc/w  20°C  50%  U        K1=7.5         1959HOa (84561)4668
********************************************************************************
C13H9NO2BrCl           HL                      CAS 104614-71-3  (9109)
4-Bromo-N-(3-chlorophenyl)-N-hydroxybenzamide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  C    M   K1=7.76        2001AMc (84574)4669
                                        B(Zn(gly)L)=13.79
Medium: 50% v/v dioxane/H2O
********************************************************************************
C13H9NO2ClF            HL                      CAS 104614-72-4  (9107)
N-(3-Chlorophenyl)-4-fluoro-N-hydroxybenzamide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  C    M   K1=7.99        2001AMc (84582)4670
                                        B(Zn(gly)L)=14.21
Medium: 50% v/v dioxane/H2O
********************************************************************************
C13H9NO2Cl2            HL                      CAS 67201-86-9  (9108)
4-Chloro-N-(3-chlorophenyl)-N-hydroxybenzamide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
```

Zn++ gl diox/w 25°C 50% C M K1=7.78 2001AMc (84590)4671
B(Zn(gly)L)=13.79
Medium: 50% v/v dioxane/H2O
****
C13H9N3OS HL TAN CAS 1147-56-4 (4030)
1-(1',3'-Thiazol-2'-ylazo)-2-hydroxynaphthalene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp NaClO4 20°C 0.05M U K1=9.87 B2=19.74 1964NAc (84610)4672
****
C13H9N3O4 HL (6260)
3-Formyl-4-hydroxy-3'-nitroazobenzene; HO.(CHO)C6H3.N:N.C6H4.NO2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 28°C 0.20M U K1=5.40 B2=9.35 1977WJa (84634)4673
Data also for 2' and 4'-nitro analogues
****
C13H9N3O4S2 H2L CAS 2536-61-0 (4031)
1-(1',3'-Thiazol-2'-ylazo)-2-hydroxynaphthalene-6-sulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 25°C 50% U I K1=7.0 B2=13.3 1967NPb (84640)4674
Medium: 50% MeOH, 0.1 M NaClO4. In 0% MeOH: K1=6.3, K2=5.7
****
C13H10NOBr HL (6171)
N-(2-Hydroxy-5-bromobenzylidene)aniline; C6H5.N:CH.C6H3(OH)Br
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 28°C 75% U K1=5.56 1988MNb (84671)4675
****
C13H10NO2Br H2L (1385)
2'-Hydroxy-5'-bromobenzophenone oxime; Br(HO)C6H3.C(:NOH)C6H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 50% U K1=5.06 1982UVa (84688)4676
****
C13H10NO2Br HL CAS 82461-64-1 (1121)
N-Phenyl-2-bromobenzohydroxamic acid; Br.C6H4.CO.N(C6H5)OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 50% U T H K1=7.65 B2=13.68 1977AGc (84700)4677
At 35 C: K1=7.49, K2=5.87. DH(K1)=-29.9 and DH(K2)=-28.2 kJ mol-1

Zn++ gl diox/w 35°C 50% U K1=7.49 B2=13.36 1974ATa (84701)4678

****
C13H10NO2Cl HL (8130)
N-(2-Chlorophenyl)benzohydroxamic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 50% U K1=7.78 B2=14.53 1986ARb (84707)4679
Also data for the N-(2-chlorophenyl)-3-methoxy, 3-methyl, 3-fluoro,
3-chloro, 3-bromo-, 3-iodo and 3-nitro-benzohydroxamic acids.
****
C13H10NO2Cl HL CAS 36016-24-7 (1818)
N-(4-Chlorophenyl)benzohydroxamic acid; C6H5.CO.N(C6H4Cl)OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 70% U K1=5.53 B2=10.27 1967JSa (84716)4680
Medium: 70% dioxan, 0.1 M KCl
****
C13H10NO2Cl HL CAS 78154-49-1 (5649)
N-3-Chlorophenylbenzohydroxamic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 50% C M K1=8.13 2001AMc (84730)4681
B(Zn(gly)L)=14.48
Medium: 50% v/v dioxane/H2O

Zn++ gl diox/w 30°C 50% U K1=8.74 B2=15.35 1994JBb (84731)4682
Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4.

Zn++ gl diox/w 25°C 50% U K1=7.24 B2=13.14 1989PMb (84732)4683
****
C13H10NO2Cl HL CAS 105417-12-7 (1122)
N-Phenyl-2-chlorobenzohydroxamic acid; Cl.C6H4.CO.N(C6H5)OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 50% U T H K1=7.67 B2=13.74 1977AGc (84748)4684
At 35 C: K1=7.52, K2=5.92. DH(K1)=-26.4 and DH(K2)=-26.4 kJ mol-1

Zn++ gl diox/w 35°C 50% U K1=7.52 B2=13.44 1974ATa (84749)4685
****
C13H10NO2F HL CAS 90493-82-6 (1123)
N-Phenyl-2-fluorobenzohydroxamic acid; F.C6H4.CO.N(C6H5)OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 50% U T H K1=7.61 B2=13.41 1977AGc (84757)4686
At 35 C: K1=7.40, K2=5.69. DH(K1)=-36.9 and DH(K2)=-19.4 kJ mol-1

Zn++ gl diox/w 35°C 50% U K1=7.40 B2=13.09 1974ATa (84758)4687
****
C13H10NO2I HL CAS 90493-83-7 (1120)
N-Phenyl-2-iodobenzohydroxamic acid; I.C6H4.CO.N(C6H5)OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 50% U T H K1=7.58 B2=13.54 1977AGc (84766)4688
At 35 C: K1=7.40, K2=5.64. DH(K1)=-31.7 and DH(B2)=-56.3 kJ mol-1

Zn++ gl diox/w 35°C 50% U K1=7.40 B2=14.04 1974ATa (84767)4689
****
C13H10N2 L CAS 3002-77-5 (3400)
2-Methyl-1,10-phenanthroline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ dis KCl 25°C 0.10M U K1=4.96 B2=9.36 1962IMa (84776)4690
K3=3.35
****
C13H10N2 L CAS 3003-78-6 (2752)
5-Methyl-1,10-phenanthroline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 35°C 0.10M C M K1=5.57 B2=10.34 1998LYa (84795)4691
B(ZnLA)=15.25
B(ZnHLA)=21.36
A is 3,3,9,9-tetramethyl-4,8-diazaundecane-2,10-dione dioxime.

Zn++ gl KNO3 25°C 0.10M C M K1=6.62 B2=12.60 1991DAc (84796)4692
Data for ternary complexes with acetohydroxamic acid

Zn++ ISE alc/w 25°C 50% U K1=5.82 B2=11.53 1972BBa (84797)4693
B3=16.54
Medium: 50% EtOH, 0.1 M KNO3

Zn++ dis KCl 25°C 0.10M U K1=6.62 B2=12.58 1962MBa (84798)4694
K3=5.67

Zn++ gl KNO3 25°C 0.10M U K2=6.0 1956YSb (84799)4695
K3=5.0
****
C13H10N2O HL CAS 5496-07-1 (3404)
2-(2'-Hydroxyphenyl)benzimidazole;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 35°C 60% U K1=6.20 B2=11.70 1984MLa (84820)4696

Zn++ gl alc/w 20°C 50% U K1=7.5 B2=14.4 1959HOa (84821)4697
****
C13H10N2O HL CAS 65782-79-8 (4978)
4-Amino-5-hydroxyacridine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 50% U K1=7.69 B2=14.84 1970CBc (84831)4698
Medium: 50% dioxan, 0.1 M NaClO4
****
C13H10N2O L Pyocyanine CAS 83-06-5 (2186)
Pyocyanine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp non-aq 25°C 100% U K1=3.3 1978MSc (84836)4699
Medium: DMSO
****
C13H10N2O2 HL CAS 27147-03-1 (6307)
2-Hydroxy-5-(phenylazo)benzaldehyde; C6H5.N:N.C6H3(CHO)(OH)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 28°C 50% U K1=5.00 B2=9.18 1975JTb (84845)4700
****
C13H10N2O3 HL CAS 19357-10-9 (9111)
N-(2-Pyridyl)-2-carboxybenzamide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl mixed 25°C 40% U K1=5.73 B2=10.04 2002GSa (84858)4701
Medium: 40% v/v DMF/H2O, 0.1 M NaClO4.
****
C13H10N2O4 H2L CAS 15766-65-6 (1384)
2-Hydroxy-5-nitrobenzophenone oxime; HO(NO2)C6H3.C(:NOH)C6H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 50% U K1=4.59 B2=8.52 1982UVa (84869)4702
****
C13H10N2O4 HL CAS 2029-61-0 (178)
N-Phenyl-2-nitrobenzohydroxamic acid; O2N.C6H4.CO.N(C6H5).OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 50% U T H K1=7.22 B2=12.86 1977AGc (84893)4703
At 35 C: K1=7.12, K2=5.44. DH(K1)=-17.6 and DH(K2)=-35.2 kJ mol-1

Zn++ gl diox/w 35°C 50% U K1=7.12 B2=12.56 1974ATa (84894)4704
****

C13H10N2O5 H3L (1389)
2,4-Dihydroxy-5-nitrobenzophenone oxime; (HO)2(NO2)C6H2.C(:NOH)C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	50%	U		K1=6.92	1982UVa (84915)	4705

****

C13H10N4Br2S HL CAS 104654-49-1 (5015)
Di-4-bromophenylthiocarbazone; Br.C6H4.N:N.CS.NH.NH.C6H4.Br

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U		K1=5.35	1970AFb (84946)	4706

Medium: 50% dioxan, 0.1 M

****

C13H10N4Cl2S HL CAS 19403-31-7 (5014)
Di-4-chlorophenylthiocarbazone; Cl.C6H4.N:N.CS.NH.NH.C6H4.Cl

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U		K1=5.37	1970AFb (84950)	4707

Medium: 50% dioxan, 0.1 M

****

C13H10N4F2S HL CAS 2805-80-3 (5017)
Di-4-fluorophenylthiocarbazone; F.C6H4.N:N.CS.NH.NH.C6H4.F

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	diox/w	25°C	50%	U		K1=5.75	1970AFb (84954)	4708

Medium: 50% dioxan, 0.1 M

****

C13H10N4I2S HL CAS 2059-77-0 (5016)
Di-4-iodophenylthiocarbazone; I.C6H4.N:N.CS.NH.NH.C6H4.I

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U		K1=5.02	1970AFb (84958)	4709

Medium: 50% dioxan, 0.1 M

****

C13H10N4S HL CAS 3788-81-6 (4014)
2-Picolinylaldehyde 2-benzothiazolylhydrazone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U		K1=9.33 B2=18.38	1965HRa (84965)	4710

****

C13H10O2S H2L CAS 88220-26-2 (6572)
3-(1-Naphthyl)-2-mercaptopropenoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

```
------------------------------------------------------------------------------
Zn++       gl  alc/w  25°C  50%  C        K1=9.684  B2=18.89  1989IBa (84975)4711
Medium: 50% v/v EtOH/H2O, 1.0 M NaClO4.
******************************************************************************
C13H10O2S            H3L                      CAS 88220-26-2  (6056)
3-(2-Naphthyl)-2-mercaptopropenoic acid;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  alc/w  25°C  50%  C        K1=9.70   B2=19.04  1987IBa (84979)4712
                                         B(ZnHL)=12.79
Medium: 50% v/v EtOH/H2O, 1.0 M NaClO4
******************************************************************************
C13H11NO              HL                       CAS 779-84-0  (3406)
N-Salicylideneaniline; HO.C6H4.CH:N.C6H5
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  diox/w 27°C  50%  U        K1=5.40        1972SDb (85027)4713
Medium: 50% dioxan, 0.1 M NaClO4
------------------------------------------------------------------------------
Zn++       sp  alc/w  30°C  10%  U                       1969DNa (85028)4714
                                       K(Zn+HL=ZnL+H)=-4.34
Medium: 10% EtOH, 0.2 M NaClO4
******************************************************************************
C13H11NOS            H2L                        (7306)
2-(Salicylideneamino)thiophenol, Salicylaldehyde-2-mercaptoanil;
HO.C6H4.CH:N.C6H4.SH
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  75%  U        K1=16.5        1998FHa (85039)4715
Medium: 75% (v/v) dioxane/water; 0.1 M KNO3.
******************************************************************************
C13H11NOS             HL                       CAS 56048-80-7  (5018)
N-Thiobenzoyl-N-phenylhydroxylamine; C6H5.CS.N(C6H5)OH
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  75%  U        K1=10.12  B2=18.72  1971DTc (85055)4716
******************************************************************************
C13H11NO2             HL                       CAS 1761-56-4  (3408)
2-(Salicylideneamino)phenol, Salicylaldehyde-2-hydroxyanil; HO.C6H4.CH:N.C6H4.OH
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  75%  U        K1=12.9        1998FHa (85067)4717
Medium: 75% (v/v) dioxane/water; 0.1 M KNO3.
******************************************************************************
C13H11NO2            H2L                        (1383)
```

2-Hydroxybenzophenone oxime; HO.C6H4.C(:NOH)C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	50%	U		K1=5.71	1982UVa (85073)	4718

****

C13H11NO2 H2L CAS 78-75-2 (6258)
3-(Salicylideneamino)phenol; HO.C6H4.CH:N.C6H4.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	alc/w	25°C	50%	U		K1=5.3 B2=10.40	1977DWa (85080)	4719

****

C13H11NO2 HL Salicylanilide CAS 87-17-2 (4016)
N-Phenyl-2-hydroxybenzamide; HO.C6H4.CO.NH.C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=5.06	1964JVa (85095)	4720

Medium: 75% dioxan, 0.1 M NaClO4

****

C13H11NO2 HL CAS 304-88-1 (181)
N-Phenylbenzohydroxamic acid; C6H5.CO.N(C6H5).OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	50%	U		K1=9.27 B2=15.71	1994JBb (85129)	4721

Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U		K1=6.06 B2=10.58	1976BLa (85130)	4722
Zn++	gl	diox/w	35°C	50%	U		K1=7.71 B2=14.34	1974ATa (85131)	4723
Zn++	gl	diox/w	25°C	50%	U		K1=7.51 B2=14.14	1972STf (85132)	4724
Zn++	EMF	diox/w	25°C	70%	U		K1=5.76 B2=10.82	1967JSb (85133)	4725

Medium: 70% v/v dioxan/H2O, 0.1 M KCl

****

C13H11NO3 H3L CAS 3147-44-2 (1388)
2,4-Dihydroxy-benzophenone oxime; (HO)2C6H3.C(:NOH)C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	50%	U		K1=7.22	1982UVa (85191)	4726

****

C13H11NO3 H2L CAS 156357-28-7 (8319)
N-(p-Hydroxyphenyl)benzohydroxamic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

Zn++ gl diox/w 30°C 50% U K1=8.31 B2=14.78 1994JBb (85198)4727
Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4.
For N-(m-hydroxyphenyl)benzohydroxamic acid, K1=8.29, K2=6.61.
****
C13H11NO5 HL Oxolinic acid CAS 14698-29-4 (2755)
1-Ethyl-6,7-dioxymethylene-quinoline-4-one-3-carboxylic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp oth/un 25°C 0.05M C 2000MPa (85213)4728
K1eff=3.19
Medium: 0.05 M ethanoate buffer, pH=5.5. Method: spectrofluorimetry.
For 7-Hydroxymethylnalidixic acid (C12H12N2O4) K1eff=3.77

Zn++ sp KCl 25°C 0.10M U K1=4.3 1978TSb (85214)4729
****
C13H11N2O3F3 HL (5563)
3-(2-Acetylphenylhydrazone)-1,1,1-trifluoropentane-2,4-dione;
CF3.CO.C(CO.CH3):N.HN.C6H4.COCH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 75% U K1=8.77 B2=17.02 1990ASb (85239)4730
****
C13H11N3OS L (1274)
1-Benzoyl-3-pyridin-2-ylthiourea; C5H4N.NH.CS.NH.CO.C6H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 25°C 75% U K1=5.51 B2=9.21 1980SMb (85264)4731
****
C13H11N3O2 H2L CAS 62031-25-8 (1119)
4-Hydroxy-3-oximinomethylazobenzene; (HO)(HO.N:CH)C6H3.N:N.C6H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 28°C 60% U K1=6.65 B2=11.80 1978WPa (85275)4732

Zn++ gl alc/w 25°C 42% U K1=4.97 B2=9.58 1974MSb (85276)4733
****
C13H11N3O5S H3L (5019)
4-Hydroxy-3-oximinomethylazobenzene-4'-sulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 25°C 42% U K1=3.67 B2=7.10 1973DSa (85294)4734
Medium: 42% EtOH, 0.2 M NaClO4
****
C13H11N5O2 L CAS 4453-80-9 (8115)
3-Nitro-1,5-diphenylformazan;

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  50%  C T H    K1=6.58   B2=12.02  2001SKb (85311)4735
Medium: 50% v/v dioxane/water, 0.1 M KCl. Data for 20-40 C.
DH(K1)=-30.7 kJ mol-1, DH(K2)=-24.6.
********************************************************************************
C13H11N5O4S           H2L                        (3417)
4-Hydroxy-6-p-sulfoanilinomethylpteridine;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  oth/un 20°C 0.01M U        K1=3.4         1953ALa (85317)4736
********************************************************************************
C13H12N2O6S2          H2L                        (1333)
4-Sulfono-salicylidene sulfanilamide; HO3S.C6H3(OH).CH:N.SO2.C6H4.NH2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   32°C 0.10M U T      K1=6.03        1981SBb (85383)4737
********************************************************************************
C13H12N4O              L    Diphenylcarbaz.  CAS 538-62-5  (1195)
Diphenylcarbazone; C6H5.NH.NH.CO.N:N.C6H5
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U        K1=6.4    B2=12.90  1986MHb (85402)4738
--------------------------------------------------------------------------------
Zn++       sp  NaClO4 25°C  50%  C        K1=6.32   B2=12.44  1985MAb (85403)4739
Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4.
--------------------------------------------------------------------------------
Zn++       sp  diox/w 25°C  50%  U        K1=5.76        1964MFa (85404)4740
********************************************************************************
C13H12N4S              L    Dithizone        CAS 60-10-6  (1801)
Diphenylthiocarbazone; C6H5.NH.NH.CS.N:N.C6H5
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       sp  diox/w 25°C  50%  C        K1=6.14        1985MAb (85440)4741
Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4.
--------------------------------------------------------------------------------
Zn++       sp  NaClO4 25°C 0.10M U        K1=6.93   B2=13.96  1973BSe (85441)4742
--------------------------------------------------------------------------------
Zn++       sp  diox/w 25°C  50%  U        K1=6.16        1970AFb (85442)4743
Medium: 50% dioxan, 0.1 M
--------------------------------------------------------------------------------
Zn++       sp  diox/w 25°C  50%  U        K1=6.18        1964MFa (85443)4744
--------------------------------------------------------------------------------
Zn++       dis NaClO4 25°C  1.0M U    M   K1=5.05        1962HFa (85444)4745
Ternary complexes with diethyldithiocarbamic acid
```

****
C13H12O5 HL CAS 17426-76-5 (3401)
O,O-Dimethylpurpurogallin

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 50% U K1=6.8 B2=12.5 1954BFc (85482)4746
****
C13H13NO HL CAS 24403-51-8 (3410)
1,2,3,4-Tetrahydro-9-hydroxyacridine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 20°C 50% U K1=8.80 B2=16.66 1954IRa (85490)4747
Medium: 50% dioxan, 0.3 M NaClO4
****
C13H13NO L CAS 35854-45-6 (297)
2-(2-Phenyl-2-hydroxy)ethylpyridine;(C6H5)(OH)CHCH2C5H4N

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M U K1=1.2 1974ILa (85496)4748
****
C13H13N3O HL (4018)
3-Hydroxy-1-(2'-methylphenyl)-3-phenyltriazene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.10M U K1=8.38 B2=15.46 1964PSa (85506)4749
****
C13H13N3O HL CAS 5756-83-2 (4019)
3-Hydroxy-1-(4'-methylphenyl)-3-phenyltriazene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.10M U K1=8.62 B2=15.99 1964PSa (85512)4750
****
C13H13N3O2 HL CAS 5756-89-8 (4021)
3-Hydroxy-1-(4'-methoxyphenyl)-3-phenyltriazene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 70% U K1=8.84 B2=16.63 1965PSb (85520)4751
Medium: 70% dioxan, 0.1 M KCl
****
C13H13N5OS HL CAS 220035-45-0 (8639)
alpha-Pyridoin thiosemicarbazone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---

Zn++ gl diox/w 30°C 50% U TIH K1=8.52 B2=15.45 1998OFa (85527)4752
Medium: 50% H2O/dioxane, 0.10 M KNO3. Data for 50% v/v H2O/dioxane, I = 0.05-0.20 M, and for 40 and 50 C at I=0.10. DH and DS values.

****

C13H13O2Br HL (6846)
3-Benzoyl-5-bromohexa-5-ene-2-one; CH2=CBr.CH2.CH(CO.CH3)CO.C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	U		K1=4.47	1992CMd (85534)	4753

****

C13H13O2Cl HL (6842)
3-Benzoyl-5-chlorohex-5-ene-2-one; CH2=CCl.CH2.CH(CO.CH3)CO.C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.20M	U		K1=4.50	1992CMd (85542)	4754

****

C13H14NO3P H2L CAS 19316-85-7 (1466)
2-Hydroxyphenyl-N-phenylaminomethylphosphinic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	20°C	0.10M	U		K1=5.10	1985SIb (85558)	4755

****

C13H14N2 L CAS 104986-55-2 (4972)
1,3-Bis(2'-pyridyl)-propane; C5H4N.CH2.CH2.CH2.C5H4N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	20°C	0.10M	U		K1=1.3	1970BAa (85570)	4756
							K(Zn+HL)=1.0		

****

C13H14N2 L (6631)
1,3-Bis(4-pyridyl)propane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	non-aq	25°C	100%	U	HM		1992UNa (85575)	4757
							K(Zn2A+L=Zn2AL)=1.36		
							K(ZnB+L=ZnBL)=4.63		
							K(Zn2C+L=Zn2CL)=5.54		

Medium: CHCl3. A,C=substituted porphyrins, B=substituted porphyrin dimer.

****

C13H14N2O L CAS 87413-05-6 (6300)
1-Benzyl-1,4-dihydronicotinamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	non-aq	25°C	100%	U			1989FKb (85578)	4758

K(ZnP+L)=1.70
Medium: CH2Cl2. ZnP=tetraphenylporphyrinatozinc(II)
****
C13H14N2O2S HL CAS 4384-37-1 (4032)
2-(4'-Methylphenylsulfonamido)aniline; CH3.C6H4.SO2.NH.C6H4.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w ? 50% U K1=9.33 B2=18.24 1968BRa (85591)4759
Medium: 50% dioxan, 0.01 M
****
C13H14N2O2S L CAS 75391-97-8 (9289)
2-(p-Toluenesulfonylaminomethyl)pyridine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 25°C 80% C K1=7.66 B2=14.57 2003CKa (85596)4760
Medium: 80% MeOH/H2O, 0.1 M Me4NNO3.
****
C13H14N2O3 HL (4989)
1-Phenyl-3-methyl-4-ethoxycarbonylpyrazol-5-one;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ dis NaClO4 ? 0.10M U K1=2.05 B2=5.52 1971NSb (85598)4761
****
C13H14N2O3 HL (4940)
3-(2-Acetylphenylhydrazone)pentane-2,4-dione;(CH3.CO)2C:N.NH.C6H4(CO.CH3)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 75% U K1=10.60 B2=20.12 1990ASb (85602)4762
****
C13H14N2O3 HL Antineoplaston CAS 91531-30-5 (8098)
3-(N-Phenylacetylamino)-2,6-piperidinedione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 45°C 50% C K1=7.13 1996MMc (85624)4763
Medium: 50% v/v MeOH/H2O, 0.10 M KNO3.
****
C13H14N3O5P H2L CAS 80767-75-5 (1467)
2-Hydroxy-4-nitrophenyl-N-(2-pyridylmethyl)aminemethylphosphinic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 20°C 0.10M U K1=5.70 1985SIb (85635)4764
****
C13H14N3O5P H2L CAS 80767-76-6 (1468)
2-Hydroxy-4-nitrophenyl-N-(3-pyridylmethyl)aminemethylphosphinic acid;

```
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 20°C 0.10M U        K1=5.80        1985SIb (85648)4765
*******************************************************************************
C13H14N4                L                      CAS 13103-75-8  (473)
4-(2-Pyridylazo)-N,N-dimethylaniline; C5H4N.N:N.C6H4.N(CH3)2
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       sp  NaNO3  25°C 0.30M U    M   K1=2.31        1971CHe (85669)4766
                                          K(ZnA+L)=2.08
                                          K(ZnB+L)=1.94
                                          K(ZnC+L)=2.39
A=diethylenetriamine; B=triethylenetetramine; H2C=iminodiethanoic acid
-------------------------------------------------------------------------------
Zn++       kin NaNO3  25°C 0.30M U    M   K1=2.40        1971CHe (85670)4767
                                          K(ZnA+L)=2.21
                                          K(ZnB+L)=1.57
                                          K(ZnC+L)=2.45
A=diethylenetriamine; B=triethylenetetramine; H2C=iminodiethanoic acid
-------------------------------------------------------------------------------
Zn++       kin NaNO3  25°C 0.30M U    M                  1971CHe (85671)4768
                                          K(ZnA+L)=1.54
                                          K(ZnB+L)=2.37
                                          K(ZnC+L)=2.40
H2A=ethylenediamine-N,N-diethanoic acid; H2B=cystine;
H5C=tripolyphosphoric acid.
-------------------------------------------------------------------------------
Zn++       sp  NaNO3  25°C 0.30M U    M                  1971CHe (85672)4769
                                          K(ZnA+L)=1.57
                                          K(ZnB+L)=2.76
                                          K(ZnC+L)=1.18
                                          K(ZnD+L)=2.46
H2A=ethylenediamine-N,N-diethanoic acid; H2B=cystine;
H3C=nitrilotriethanoic acid; H5D=tripolyphosphoric acid.
-------------------------------------------------------------------------------
Zn++       kin KNO3   16°C 0.10M U        K1=2.62        1964WIa (85673)4770
-------------------------------------------------------------------------------
Zn++       sp  NaNO3  25°C 0.15M U        K1=2.36        1953KMa (85674)4771
*******************************************************************************
C13H14N4O               L                      CAS 354122-81-9  (8808)
N-Glycylbis(pyridin-2-yl)methylamine;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C        B2=6.66        2001OVa (85689)4772
                                          B(ZnH-1L)=-3.23
                                          B(ZnH-2L)=-11.94
                                          B(ZnH-1L2)=-0.7
```

B(ZnH-2L2)=-9.12

****

C13H14N10 L CAS 41785-01-7 (9049)
Trimethylene-N6,N6'-bisadenine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	C		K1=4.2 B(Zn2L)=7.4 B(ZnHL)=8.4 B(Zn2HL)=11.7 K(Zn+HL)=4.0 K(ZnHL+Zn)=3.3.	2003GFa (85691)	4773

****

C13H15NO HL CAS 91956-75-1 (4023)
2-Butyl-8-hydroxyquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	oth/un	25°C	0.0	U		K1=9.75 B2=19.99	1966KUc (85698)	4774

****

C13H15NO4 HL CAS 35104-87-2 (4997)
2-Nitrobenzoyl pivaloyl methane; O2N.C6H4.CO.CH2.CO.C(CH3)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=8.75 B2=16.77	1972UDa (85712)	4775

Medium: 75% v/v dioxan, 0.01 M Me4NClO4

****

C13H15NO4 HL CAS 18362-53-3 (4998)
4-Nitrobenzoyl pivaloyl methane; O2N.C6H4.CO.CH2.CO.C(CH3)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	75%	U		K1=8.88 B2=17.20	1972UDa (85719)	4776

Medium: 75% v/v dioxan, 0.01 M Me4NClO4

****

C13H15NO6 H3L (4999)
2-Benzylnitrilotriethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	oth	oth/un	25°C	0.10M	U		K1=10.24	1962HKa (85730)	4777

****

C13H15NO6 H3L (4026)
N-(1'-Carboxy-1'-phenylethyl)iminodiethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	20°C	0.10M	U		K1=11.45	1966IMa (85748)	4778

****

C13H15NO6 H3L (4025)
N-(alpha-Carboxy-4'-methylbenzyl)iminodiethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	20°C	0.10M	U		K1=9.90	1966IMb	(85754)4779

****

C13H15NO7 H3L CAS 50444-50-3 (4027)
N-(alpha-Carboxy-4'-methoxybenzyl)iminodiethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	20°C	0.10M	U		K1=9.95	1966IMb	(85763)4780

****

C13H15N2O3P H2L CAS 80767-72-2 (1460)
2-Hydroxyphenyl-(N-2-pyridylmethylamino)methylphosphinic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	20°C	0.10M	U		K1=5.70	1985SIa	(85775)4781

****

C13H15N2O3P H2L CAS 80767-73-3 (1461)
2-Hydroxyphenyl-(N-3-pyridylmethylamino)methylphosphinic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	20°C	0.10M	U		K1=5.80	1985SIa	(85788)4782

****

C13H15N2O3P H2L CAS 80767-74-4 (1462)
2-Hydroxyphenyl-(N-4-pyridylmethylamino)methylphosphinic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	20°C	0.10M	U		K1=5.80	1985SIa	(85801)4783

****

C13H15N2O4P H3L CAS 80767-78-8 (1463)
2-Hydroxyphenyl-(N-2-pyridylmethylamino)methylphosphonic acid;
C6H4(OH)CH(PO3H2).NH.CH2.C5H4N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	20°C	0.10M	U		K1=8.10 K(Zn+HL)=4.05	1985SIa	(85814)4784

****

C13H15N2O4P H3L CAS 85946-85-6 (1464)
2-Hydroxyphenyl-(N-3-pyridylmethylamino)methylphosphonic acid;
C6H4(OH)CH(PO3H2).NH.CH2.C5H4N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

---
Zn++ gl NaClO4 20°C 0.10M U K1=8.20 1985SIa (85827)4785
K(Zn+HL)=4.00
****
C13H15N2O4P H3L CAS 85946-86-7 (1465)
2-Hydroxyphenyl-(N-4-pyridylmethylamino)methylphosphonic acid;
C6H4(OH)CH(PO3H2).NH.CH2.C5H4N

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 20°C 0.10M U K1=8.20 1985SIa (85840)4786
K(Zn+HL)=4.10
****
C13H15N3OS HL CAS 76877-50-4 (1291)
2-(4',5'-Dimethyl-2-thiazolylazo)-4,6-dimethylphenol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 60% U K1=8.05 B2=16.07 1981KTa (85856)4787
****
C13H15N3OS HL CAS 76877-45-7 (1295)
2-(4',5'-Dimethyl-2-thiazolylazo)-4-ethylphenol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 60% U K1=7.37 B2=14.54 1981KTa (85865)4788
****
C13H15N3O2 HL CAS 16832-24-9 (6)
N3-Benzyl-L-histidine; H2N.CH(CH2.C3H2N2(CH2.C6H5))COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C M K1=6.58 B2=12.17 1976BPa (85880)4789
B(Zn(D-His)L)=12.58
B(Zn(L-His)L)=12.27

Zn++ gl KCl 25°C 0.10M C K1=5.790 B2=11.060 1976RIa (85881)4790
K(Zn(DL-Benzyl-His))=5.786
B(Zn(DL-Benzyl-His)2)=11.021

Zn++ gl none 21°C 0.0 M K1=6.54 B2=12.54 1974YAa (85882)4791
****
C13H15N3O2S HL CAS 76877-49-1 (1293)
2-(4',5'-Dimethyl-2-thiazolylazo)-4-methyl-6-methoxyphenol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 60% U K1=7.77 B2=15.04 1981KTa (85889)4792
****
C13H15N3O3 HL Gly-Trp CAS 2390-74-1 (3411)

Glycyltrytophan;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl oth/un 25°C 0.10M U K1=3.3 1954PEa (85897)4793
****
C13H15O2Br HL CAS 41070-38-6 (4994)
2-Bromobenzoyl pivaloyl methane; Br.C6H4.CO.CH2.CO.C(CH3)3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 75% U K1=9.08 B2=17.45 1972UDa (85916)4794
Medium: 75% v/v dioxan, 0.01 M Me4NClO4
****
C13H15O2Br HL CAS 41070-33-1 (4995)
4-Bromobenzoyl pivaloyl methane; Br.C6H4.CO.CH2.CO.C(CH3)3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 75% U K1=9.46 B2=18.22 1972UDa (85921)4795
Medium: 75% v/v dioxan, 0.01 M Me4NClO4
****
C13H15O2Cl HL CAS 41070-37-5 (4992)
2-Chlorobenzoyl pivaloyl methane; Cl.C6H4.CO.CH2.CO.C(CH3)3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 75% U K1=9.11 B2=17.49 1972UDa (85926)4796
Medium: 75% v/v dioxan, 0.01 M Me4NClO4
****
C13H15O2Cl HL CAS 41070-30-8 (4993)
4-Chlorobenzoyl pivaloyl methane; Cl.C6H4.CO.CH2.CO.C(CH3)3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 75% U K1=9.60 B2=18.44 1972UDa (85931)4797
Medium: 75% v/v dioxan, 0.01 M Me4NClO4
****
C13H16N4OS HL CAS 76877-51-5 (1290)
2-(4',5'-Dimethyl-2-thiazolylazo)-5-dimethylaminophenol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 60% U K1=9.66 B2=18.92 1981KTa (85941)4798
****
C13H16N6O L (5437)
Tri-(N-methyl-imidazol-2-yl)-methanol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---

```
Zn++       gl  KNO3   25°C 0.20M U        K1=3.15   B2=5.85   1980BHa (85950)4799
********************************************************************************
C13H16N8O              L                      CAS 499196-34-8  (8833)
N-Histidylbis(imidazol-2-yl)methylamine;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M C        K1=6.82   B2= 9.97  2002OVa (85954)4800
                                          B(ZnH3L2)=28.08
                                          B(ZnH2L2)=22.79
                                          B(ZnHL2)=16.85
                                          B(ZnH2L)=16.84
B(ZnHL)=12.16, B(ZnH-1L)=-0.52.
********************************************************************************
C13H16O2               HL    Mesitoylacetone  CAS 6450-57-3  (4010)
1-(2',4',6'-Trimethylphenyl)butane-1,3-dione;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  75%  U        K1=8.89   B2=16.62  1965UFa (85958)4801
********************************************************************************
C13H16O2               HL                     CAS 13988-67-5  (4973)
Benzoyl pivaloyl methane; C6H5.CO.CH2.CO.C(CH3)3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  75%  U        K1=9.82   B2=18.83  1972UDa (85962)4802
Medium: 75% v/v dioxan, 0.01 M Me4NClO4
********************************************************************************
C13H17NO3              HL                     CAS 94287-43-2  (902)
L-2-(Benzoylamino)-4-methylpentanoic acid; (CH3)2CHCH2CH(NHCO.C6H5)COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U T H    K1=2.74        1980SKa (85974)4803
In 50% v/v dioxan. Temperature range 25-45C. At 35C, DH=8.1 and DS=79.7.
********************************************************************************
C13H17NO6             H2L                     CAS 77553-78-7  (6078)
N-(2-Hydroxy-1-(hydroxybenzyl)-iminodiethanoic acid;
HO.CH2.CH(CH(OH)(C6H5)).N(CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 25°C  1.0M C        K1=7.93   B2=13.20  1981ASb (85986)4804
                                          B(ZnHL)=9.77
                                          B(ZnH-1L)=-0.29
********************************************************************************
C13H17N3O              L    Aminopyrine        (2030)
1-Phenyl-2,3-dimethyl-4-dimethylamino-5-pyrazolone, Dimethylaminoantipyrine;
--------------------------------------------------------------------------------
```

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.50M U        K1=1.00   B2=1.29   1978LWa (85995)4805
*************************************************************************
C13H17N3O5             HL                        (6006)
N-Benzyloxycarbonyl-alanylglycyl hydroxamic acid;
C6H5.CH2.O.CO.NH.CH(CH3).CO.NH.CH2.CO.NHOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=4.0         1987CSb (86014)4806
*************************************************************************
C13H18N2O4              L                        (6005)
N-Benzyloxycarbonyl-valyl hydroxamic acid; C6H5.CH2.O.CO.NH.CH(CH(CH3)2).CO.NHOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=4.8    B2=8.2    1987CSb (86031)4807
*************************************************************************
C13H18N2O4            H2L                    CAS 13933-94-3  (4028)
Pyridoxylidenevaline;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       sp  non-aq 27°C 100%  U        B2=11.5        1967MMb (86040)4808
Medium: MeOH
-------------------------------------------------------------------------
Zn++       sp  oth/un 25°C 0.10M U        K1=7.94        1961DRa (86041)4809
*************************************************************************
C13H19N3                L                        (6739)
2,6-Bis(pyrrolidin-2-yl)pyridine;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.12M U   H    K1=9.06        1993BGb (86066)4810
                                         B(rac-ZnL2)=12.60
                                         B(meso-ZnL2)=13.63
                                         B(Zn(OH)L)=18.14
                                         B(Zn(OH)2L)=29.01
*************************************************************************
C13H19N3O4            H2L                    CAS 380371-98-2  (8005)
N-Benzyl-iminobis(propionohydroxamic acid);
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=8.34        2001SGb (86075)4811
                                         B(ZnHL)=14.68
*************************************************************************
C13H19N3O8            H3L    b-Asp-b-Asp-Pro  CAS 91921-49-2  (8149)
Pyrrolidine-2-carboxy-N-(1,5-dicarboxy-1-amino-4-azaheptane-3,7-dione);
```

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=5.36        1989ARa (86077)4812
********************************************************************************
C13H20NO4P            H3L                        (1471)
2-Hydroxyphenyl-N-(cyclohexylamino)methylphosphonic acid;
C6H4(OH)CH(PO3H2).NH.C6H11
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  NaClO4 20°C 0.10M U        K1=6.80        1985SIb (86085)4813
                                         K(Zn+HL)=3.30
********************************************************************************
C13H20N6O5             HL    Asp-Ala_HisNH2   CAS 83354-03-4  (8246)
Aspartyl-alanyl-histidinamide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.50M U                        1982AGa (86142)4814
                                      K(Zn+H2L)=1.86
                                      K(Zn+HL)=5.28
                                      K(2Zn+HL)=9.1
********************************************************************************
C13H21N3O               L                      CAS 473793-88-3  (8976)
7-Oxa-3,11,17-triazabicyclo[11.3.1]heptadeca-1(17),13,15-triene;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=6.86        2001CDb (86163)4815
********************************************************************************
C13H22N2O8            H4L                      CAS 1798-14-7  (921)
(Pentamethylenedinitrilo)tetraethanoic acid; ((HOOC.CH2)2N.CH2.CH2)2CH2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  KNO3   20°C  1.0M C        K1=14.00       1999ANa (86181)4816
                                         B(NiHL)=19.26
                                         K(NiL+NiHL)=2.80
--------------------------------------------------------------------------------
Zn++       gl  KNO3   20°C 0.10M U   H    K1=12.67       1964ANa (86182)4817
                                         K(Zn+HL)=7.8
By calorimetry: DH(K1)=-11.3 kJ mol-1, DS=204 J K-1 mol-1
********************************************************************************
C13H22N2O8            H4L                      CAS 1198-14-7  (5004)
1,2-Diaminopentane-N,N,N',N'-tetraethanoic acid; (HOOCCH2)2NCH2CH(C3H7)N(CH2COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       vlt KNO3   20°C 0.10M U        K1=18.17       1974NLa (86216)4818
```

```
**************************************************************************
C13H22N2O8            H4L                        (7164)
2,4-Diaminopentane-N,N,N',N'-tetraethanoic acid;
(HOOCCH2)2NCH(CH3)CH2CH(CH3)N(CH2COOH)2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   20°C 0.10M U        K1=16.96       1981NSc (86244)4819
**************************************************************************
C13H22N2O8            H4L                        (5003)
3-Methyl-1,2-diaminobutane-N,N,N',N'-tetraethanoic acid;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       vlt KNO3   20°C 0.10M U        K1=18.53       1968NLb (86271)4820
**************************************************************************
C13H22N4               L                          (6710)
3,7,11,17-Tetraazabicyclo[11.3.1]heptadeca-1(17),13,15-triene;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=12.816      1993CDa (86321)4821
                                          K(Zn(OH)L+H)=8.48
**************************************************************************
C13H22N4O4S2          H2L                     CAS 206430-11-7  (7583)
N-Acetyl-cysteinyl-prolinyl-cysteine amide;
CH3CONHCH(CH2SH)COC4H7NCONHCH(CH2SH)CONH2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=9.31        1998GGb (86335)4822
                                          B(Zn2L2)=23.45
**************************************************************************
C13H22N4O6            H2L                     CAS 93031-56-2  (7079)
1,4,7,10-Tetraazacyclotrideca-2,9-dione-4,7-diethanoic acid;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       nmr none   23°C    0  U    M                   1997IMa (86342)4823
                                       K(ZnL+HA)=2.3
                                       K(ZbL+B)=2.2
HA=histamine, B=imidazole
--------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.10M C        K1=9.13        1995IOb (86343)4824
                                       K(ZnL+H)=2.36
                                       K(ZnL=ZnH-1L+H)=-9.97
                                       K(ZnH-1L=ZnH-2L+H)=-11.24
**************************************************************************
C13H22N6O              L                       CAS 290345-99-2  (7758)
N,N'-Bis(5-methylimidazol-4-ylmethyl)-1,3-diaminopropan-2-ol;
```

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M C I K1=9.63 2000GKc (86363)4825
B(ZnHL)=13.83
B(ZnH-1L)=0.10
In 65%w/w EtOH/H2O; 0.05 NaC6H6SO3, K1=10.97, B(ZnHL)=14.43,
B(ZnH-1L)=1.19, B(Zn2H-2L)=-0.37, B(Zn2H-3L)=-10.38.
****
C13H22O2 HL CAS 41070-22-8 (4974)
Hexahydrobenzoyl pivaloyl methane; C6H11.CO.CH2.CO.C(CH3)3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 75% U K1=9.98 1972UDa (86372)4826
Medium: 75% v/v dioxan, 0.01 M Me4NClO4
****
C13H24N2O6 H2L (5610)
1,11-Dioxa-4,8-diazacyclotridecane-N,N'-diethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl R4N.X 25°C 0.10M C K1=10.26 1998CCd (86403)4827
K(ZnL+H)=4.08
Medium: 0.10 M Me4NNO3.
****
C13H24N4O4S2 H2L CAS 206430-06-0 (7579)
N-Acetyl-cysteinyl-valinyl-cysteine amide;
CH3CONHCH(CH2SH)CONHCH(CH(CH3)2)CONHCH(CH2SH)CONH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C K1=9.39 1998GGb (86425)4828
B(Zn2L2)=23.26
****
C13H25N5 L (7379)
1-(Imidazol-4-ylmethyl)-1,5,9-triazacyclododecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaCl 25°C 0.15M C K1=10.08 1997DMb (86432)4829
K(ZnL+H)=4.96
K(ZnL=ZnH-1L+H)=-10.87
****
C13H25N5 L (7380)
1-(Pyrazol-3-ylmethyl)-1,5,9-triazacyclododecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaCl 25°C 0.15M C K1=9.25 1997DMb (86435)4830

K(ZnL+H)=5.36
K(ZnL=ZnH-1L+H)=-8.97

****

C13H25N5 L (2943)
2,6-Bis-(5-(1,4-diazahexyl)pyridine; (H2N.C2H4.NH.CH(CH3))2.C5H3N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	cal	KNO3	25°C	0.1M	C	H	K1=15.73	1982TMc	(86443)4831
DH(K1)=-58.1 kJ mol-1									
Zn++	cal	KNO3	25°C	0.10M	C		DH1=-58.1 kJ/mol	1982TMd	(86444)4832
Zn++	gl	KNO3	25°C	0.10M	C		K1=15.73 K(ZnL+H)=2.74	1978HMa	(86445)4833

****

C13H28N4O2 L CAS 17023-02-8 (7247)
3,3,9,9-Tetramethyl-4,8-diazaundecane-2,10-dione dioxime;
(HON:C(CH3)C(CH3)2NHCH2)2CH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	25°C	0.15M	C		K1=5.01 B(ZnH-1L)=0.26 B(ZnH-2L)=-8.79	2004NJa	(86530)4834
Zn++	gl	KNO3	35°C	0.10M	C	M	K1=9.91 B(ZnHL)=16.40	1998LYa	(86531)4835

Ternary complexes with 5-substituted-1,10-phenanthrolines.

****

C13H29N3O L (6454)
4,8,12-Trimethyl-1-oxa-4,8,12-triazacyclotetradecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U		K1=6.36 B(ZnH-1L)=-1.58 B(ZnH-2L)=-12.49 K(ZnL+OH)=5.88 K(ZnL+2OH)=8.79	1991ACa	(86546)4836

****

C13H30N2O4 L CAS 139-90-2 (3415)
N-(2-Hydroxyethyl)-N,N',N'-tri(2-hydroxypropyl)ethylenediamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.50M	U		K1=5.67	1960HDa	(86556)4837

****

C13H30N4O L CAS 252191-62-1 (7610)

1-(3-Hydroxypropyl)-1,4,8,11-tetraazacyclotetradecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl R4N.X 25°C 0.10M C K1=13.0 1999DWa (86565)4838
K(Zn+HL)=6.6
K(ZnL=ZnH-1L+H)=-8.2
Medium: 0.1 M NEt4ClO4
****
C14H8N3OCl HL CAS 25732-24-5 (5080)
10-Chloro-7-hydroxyindolo(2,3-b)quinoxaline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp diox/w ? 50% U 1970KMc (86595)4839
K(Zn+HL=ZnL+H)=(?)3.71
****
C14H8N3O8S2F3 HL (9231)
1-(2-Thenoyl),4-trifluoro,2-[2-hydroxy-2-sulpho-5-nitrophenylazo]butadi-1,3-one;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KCl 25°C 0.1M U K1=7.47 B2=14.03 2004ACa (86605)4840
****
C14H8N4O4Br2S H2L 3,5-di-Br-PAHQS (7223)
7-(3,5-Dibromo-2-pyridyl)-azo)-8-hydroxyquinoline-5-sulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp KNO3 25°C 0.10M C K1=16.01 1990HCa (86615)4841
****
C14H8N4O4Cl2S H2L (6672)
7-((3,5-Dichloro-2-pyridyl)azo)-8-hydroxyquinoline-5-sulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp KNO3 25°C 0.10M C K1=15.96 1990HCa (86619)4842
****
C14H8O4 H2L Quinizarin CAS 81-64-1 (1060)
1,4-Dihydroxyanthraquinone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp alc/w 20°C 50% U 1982KMd (86661)4843
K(Zn+HL)=4.9
Medium: 50% v/v EtOH/H2O
****
C14H8O7S H3L DASA CAS 83-61-4 (950)
1,2-Dihydroxyanthraquinone-3-sulfonic acid, Alizarin Red S;

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  NaClO4 30°C  0.0  U  I     K1=8.61   B2=15.04  1972GDa (86706)4844
I=0.02: K1=9.11, K2=6.72;  0.05: K1=9.22, K2=6.75;
0.15: K1=9.32, K2=6.70;  0.2: K1=8.72, K2=6.32
*************************************************************************
C14H9NO2               HL                     CAS 641-63-4  (4038)
2-(2'-Pyridyl)indan-1,3-dione;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  75%  U        K1=9.64   B2=18.98  1964CMb (86785)4845
*************************************************************************
C14H9N2OClS            HL                       (562)
N-(2'-Hydroxy-5'-chlorobenzylidene)-4-aminobenzothiazole;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  diox/w 25°C 0.10M U        K1=6.1    B2=12.90  1978SUa (86817)4846
*************************************************************************
C14H9N3O               HL                     CAS 25732-18-7  (5042)
1-Hydroxyindolo(2,3-b)quinoxaline;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  diox/w   ?   50%  U        K1=6.47   B2=14.02  1970KMc (86825)4847
-------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U        K1=7.25   B2=14.28  1970MKg (86826)4848
Medium: 50% v/v dioxan, 0.01 M (H,K)NO3
*************************************************************************
C14H9N3O               HL                     CAS 25732-19-8  (5043)
4-Hydroxyindolo(2,3-b)quinoxaline;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       gl  diox/w   ?   50%  U        K1=6.48   B2=14.11  1970KMc (86837)4849
-------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U        K1=8.23   B2=15.01  1970MKg (86838)4850
Medium: 50% v/v dioxan, 0.01 M (H,K)NO3
*************************************************************************
C14H9N7O6             H3L                       (5044)
1,5-Bis(2-hydroxy-4-nitrophenyl)-3-cyanoformazan;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Zn++       sp  NaClO4 25°C 0.10M U                      1971BSf (86858)4851
                                        B(ZnH4L2)=53.5
*************************************************************************
C14H10NO2F3            HL                     CAS 530-28-9  (2574)
N-(3-Trifluoromethylphenyl)-2-aminobenzoic acid; HOOC(C6H4)NH(C6H4)CF3
```

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  mixed  22°C  90%  U        K1=2.51        1982GKb (86895)4852
Medium: 90% DMF/H2O
********************************************************************************
C14H10N2OS             HL                      CAS 5005-14-1  (563)
N-(2'-Hydroxybenzylidene)-4-aminobenzothiazole;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C 0.10M U        K1=7.7    B2=14.40  1978SUa (86898)4853
********************************************************************************
C14H10N2O5           H3L                       CAS 85545-78-4  (6309)
3,2'-Dicarboxy-4-hydroxyazobenzene; (HO)(COOH)C6H3.N:N.C6H4.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  alc/w  25°C  75%  U        K1=13.19  B2=23.26  1976RKa (86904)4854
********************************************************************************
C14H10N4O2S            HL                        (6854)
3-Phenyl-5-mercapto-4-(2-nitrophenyl)-1,2,4-triazole; C6H5.C2N3(SH)(C6H4.NO2)
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  mixed  30°C  70%  U        K1=4.87   B2=8.94   1991SMc (86918)4855
Medium: 70% DMF. Data also for 4-chlorophenyl, 2-nitrophenyl, 4-nitrophenyl,
3,5-dinitrophenyl analogues
********************************************************************************
C14H11NO2              HL                      CAS 10472-94-3  (4040)
1-Phenyl-3-(2'-pyridyl)propane-1,3-dione; C6H5.CO.CH2.CO.C5H4N
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  75%  U  I     K1=10.86  B2=20.90  1967WHa (86939)4856
Medium: 75% dioxan, 0.01 M. In 0.002 M K1=11.15, K2=10.85
********************************************************************************
C14H11NO2              HL                      CAS 10472-95-4  (4041)
1-Phenyl-3-(3'-pyridyl)propane-1,3-dione; C6H5.CO.CH2.CO.C5H4N
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  75%  U  I     K1=10.15  B2=19.47  1967WHa (86943)4857
Medium: 75% dioxan, 0.01 M. In 0.002 M: K1=10.39, K2=9.86
********************************************************************************
C14H11NO2              HL                      CAS 6312-20-3  (4042)
1-Phenyl-3-(4'-pyridyl)propane-1,3-dione; C6H5.CO.CH2.CO.C5H4N
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
```

Zn++ gl diox/w 25°C 75% U I K1=9.62 B2=18.43 1967WHa (86947)4858
Medium: 75% dioxan, 0.01 M. In 0.002 M: K1=9.92, K2=9.50
****
C14H11NO3 H2L CAS 7316-93-5 (5047)
N-Salicylideneanthranilic acid; HO.C6H4.CH:N.C6H4.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 50% U K1=4.65 B2=8.49 1972MGa (86951)4859
Medium: 50% dioxan, 0.1 M NaClO4
****
C14H11NO4 H2L CAS 279-92-0 (3430)
2,2'-Iminodibenzoic acid; HOOC.C6H4.NH.C6H4.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 25°C 50% U K1=4.48 B2=7.99 1973DSb (86965)4860
Medium: 50% EtOH, 0.2 M NaClO4

Zn++ gl diox/w 35°C 50% U K1=5.6 1958YSa (86966)4861

Zn++ gl diox/w 35°C 50% U K1=5.6 1958YSa (86967)4862
****
C14H11NO4 H2L CAS 156357-30-1 (8320)
N-(p-Carboxyphenyl)benzohydroxamic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 50% U K1=8.07 B2=14.29 1994JBb (86974)4863
Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4.
For N-(o-carboxyphenyl)benzohydroxamic acid, K1=7.70, K2=5.95.
****
C14H11N3O HL CAS 24854-76-0 (1380)
2-(1H-Benzimidazol-2-yl-methylene-amino) phenol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 60% U K1=7.80 1984ORa (86990)4864
Data also for 4-Cl- and 4-NO2- analogues
****
C14H11N5O2 H3L (5046)
1,5-Bis(2-hydroxyphenyl)-3-cyanoformazan; HO.C6H4.N:N.C(CN):N.NH.C6H4.OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp NaClO4 25°C 0.10M U 1971BSf (87007)4865
K(ZnH4L2)=60.0
****
C14H11N5O8S2 H5L CAS 1105-53-9 (5084)
1,5-Bis(2-hydroxy-5-sulfophenyl)-3-cyanoformazan;

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       sp  NaClO4 25°C 0.10M U                      1971BSf (87013)4866
                                        B(ZnH4L2)=78.4
--------------------------------------------------------------------------------
Zn++       gl  NaNO3  20°C 0.10M U       K1=15.97       1971SEa (87014)4867
********************************************************************************
C14H11O2NF2S           HL                    CAS 51679-49-3  (2928)
N-((3-Difluoromethylthio)phenyl)anthranilic acid;HOOC(C6H4).NH.(C6H4).S.CHF2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  mixed  22°C  90%  U       K1=2.70        1982GKb (87025)4868
Medium: 90% DMF/H2O
********************************************************************************
C14H11O2NF2S           HL                    CAS 51679-50-4  (2929)
N-((4-Difluoromethylthio)phenyl)anthranilic acid;HOOC(C6H4).NH.(C6H4).S.CHF2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  mixed  22°C  90%  U       K1=2.59        1982GKb (87030)4869
Medium: 90% DMF/H2O
********************************************************************************
C14H12NOBr             HL                    CAS 20772-74-1  (6172)
N-(2-Hydroxy-5-bromobenzylidene)-4-methylaniline; HO(Br)C6H3.CH:N.C6H4.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  mixed  28°C  75%  U       K1=6.32        1988MNb (87038)4870
********************************************************************************
C14H12NO2Cl            HL                    CAS 67055-92-9  (6301)
N-(3-Chlorophenyl)-4-methylbenzohydroxamic acid; CH3.C6H4.CO.N(C6H4Cl)OH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  C    M   K1=8.30        2001AMc (87058)4871
                                        B(Zn(gly)L)=14.78
Medium: 50% v/v dioxane/H2O
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  U       K1=7.41   B2=13.56  1989PMb (87059)4872
Data also for 4-fluoro, 4-chloro, 4-bromo, 4-nitro and 4-methoxy analogues
********************************************************************************
C14H12NO3Cl            HL                    CAS 67135-47-1  (9106)
N-(3-Chlorophenyl)-N-hydroxy-4-methoxybenzamide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Zn++       gl  diox/w 25°C  50%  C    M   K1=8.35        2001AMc (87093)4873
                                        B(Zn(gly)L)=14.97
```

Medium: 50% v/v dioxane/H2O

****

C14H12N2 L CAS 484-11-7 (450)
2,9-Dimethyl-1,10-phenanthroline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	dis	KCl	25°C	0.10M	U		K1=4.1	B2=7.7	1962IMa (87120)	4874
Zn++	gl	KNO3	25°C	0.10M	U		K1=3.1		1956YSb (87121)	4875

****

C14H12N2 L CAS 3248-05-3 (3427)
4,7-Dimethyl-1,10-phenanthroline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	dis	oth/un	25°C	0.10M	U		K1=6.90 K3=6.04	B2=13.08	1963BMb (87142)	4876
Zn++	gl	KNO3	25°C	0.10M	U		K2=6.3 K3=5.4		1956YSb (87143)	4877

****

C14H12N2 L CAS 3002-81-1 (451)
5,6-Dimethyl-1,10-phenanthroline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	dis	oth/un	25°C	0.10M	U		K1=6.87 K3=5.71	B2=12.89	1963BMb (87156)	4878

****

C14H12N2OS H2L (7309)
Salicylaldehyde thiobenzoylhydrazone; HO.C6H4.CH:N.N:C(SH).C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	75%	U		K1=16.9		1998FHa (87163)	4879

Medium: 75% (v/v) dioxane/water; 0.1 M KNO3.

****

C14H12N2O2 HL (6311)
4-Hydroxy-3-formyl-2'-methylazobenzene; (HO)(CHO)C6H3.N:N.C6H4.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	28°C	50%	U		K1=4.88	B2=8.82	1975JTb (87172)	4880

****

C14H12N2O2 HL (6328)
4-Hydroxy-3-formyl-4'-methylazobenzene; (HO)(CHO)C6H3.N:N.C6H4.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo

Zn++ gl diox/w 28°C 50% U K1=4.75 B2=8.71 1975JTb (87182)4881
****
C14H12N2O2 H2L (7307)
Salicylaldehyde benzoylhydrazone; HO.C6H4.CH:N.N:C(OH).C6H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 75% U K1=16.6 1998FHa (87190)4882
Medium: 75% (v/v) dioxane/water; 0.1 M KNO3.
****
C14H12N2O3 H2L CAS 4870-46-6 (3432)
2-Hydroxy-5-methyl-2'-carboxy-azobenzene; HO.C6H3(CH3).N:N.C6H4.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp none 25°C 0.0 U K1=7.58 1984MSc (87202)4883

Zn++ gl diox/w 30°C 75% U 1957SFb (87203)4884
K(Zn+H2L=ZnL+2H)=-8.0

Zn++ gl diox/w 30°C 75% U K1=12.39 1952SNa (87204)4885
****
C14H12N2O4 H2L (3433)
2,2'-Hydrazodibenzoic acid; HOOC.C6H4.NH.NH.C6H4.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 35°C 50% U K1=4.6 1958YSa (87237)4886
****
C14H12N4O HL CAS 66751-18-6 (5048)
1-(5-Methyl-4-imidazolylazo)-2-naphthol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 50% U K1=11.6 B2=21.30 1968YTa (87306)4887
Medium: 50% dioxan, 0.1 M KNO3
****
C14H12N4O L CAS 74126-83-3 (5438)
Di(2-pyridyl)-imidazol-2-yl-methanol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.20M U K1=7.50 B2=14.17 1980BHa (87311)4888
****
C14H12N4O2Br2 HL CAS 72833-87-5 (2533)
2-(2-(3,5-Dibromopyridyl)azo)-5-dimethylaminobenzoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ sp diox/w 25°C 40% C K1=6.27 1986KHa (87316)4889

****
C14H12OS HL CAS 15473-65-1 (5049)
3-Mercapto-1-(2'-naphthyl)but-2-en-1-one;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 75% U K1=10.28 B2=20.26 1969UTa (87324)4890
Medium: 75% dioxan, 0.01 M Me4NI
****
C14H12OS HL CAS 15473-98-0 (5050)
4-Mercapto-4-(2'-naphthyl)but-3-en-2-one;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 75% U K1=9.88 B2=19.41 1969UTa (87326)4891
Medium: 75% dioxan, 0.01 M Me4NI
****
C14H13NO HL CAS 982-76-3 (5058)
N-(Salicylidene)-4-methylaniline; CH3.C6H4.N:CH.C6H4.OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 27°C 50% U K1=5.05 1972SDb (87382)4892
Medium: 50% dioxan, 0.1 M NaClO4
****
C14H13NO2 H2L (1387)
2'-Hydroxy-5'-methylbenzophenone oxime; HO(CH3)C6H3.C(:NOH)C6H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 50% U K1=6.15 1982UVa (87389)4893
****
C14H13NO2 HL DPAHA CAS 4463-22-3 (880)
2,2'-Diphenylacetohydroxamic acid; (C6H5)2.CH.CO.NH.OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 20°C 50% U TIH K1=6.05 B2=10.80 1979RSb (87399)4894
DH(K1)=-24.9 kJ mol-1, DS=30.6 J K-1 mol-1, DH(K2)=-23.9, DS2=9
****
C14H13NO2 HL N,2'-DPAHA CAS 13663-57-5 (879)
N,2'-Diphenylacetohydroxamic acid; C6H5.CH2.CO.N(C6H5).OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 30°C 50% U M K1=6.55 B2=11.05 1992RAa (87418)4895
B(ZnL(phen))=6.39

Zn++ gl alc/w 20°C 50% U T H K1=6.68 B2=11.33 1985RSd (87419)4896
30 C:K1=6.55, K2=4.50; 40 C, K1=6.43, K2=4.37; 50 C, K1=6.30, K2=4.23

DH(K1)=-27.5 kJ mol-1, DS=34 J K-1 mol-1; DH(K2)=-28.3, DS=5.6

Zn++ gl alc/w 30°C 50% U T K1=6.55 B2=11.05 1981RSa (87420)4897
Medium: 50% v/v EtOH, 0.1 M KNO3

****

C14H13NO2 HL CAS 1503-92-0 (1817)
N-(4-Tolyl)benzohydroxamic acid; C6H5.CO.N(C6H4.CH3).OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	30°C	50%	U		K1=9.96	B2=17.50	1994JBb	(87439)4898

Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4.

Zn++ gl diox/w 25°C 70% U K1=6.23 B2=11.42 1969JSa (87440)4899

****

C14H13NO2 HL CAS 1143-74-2 (4044)
N-2-Tolylbenzohydroxamic acid; C6H5.CO.N(C6H4.CH3).OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	30°C	50%	U		K1=9.57	B2=16.91	1994JBb	(87472)4900

Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4.

Zn++ gl diox/w 25°C 50% U T K1=7.80 B2=14.55 1979AMa (87473)4901
At 35 C, K1=7.69, K2=6.62. Also data for the 4-methyl-, 4-methoxy-,
4-fluoro, 4-chloro-, 4-bromo- and 4-nitro-bezohydroxanic acid derivatives.

Zn++ gl diox/w 25°C 50% U K1=8.19 B2=14.90 1972STf (87474)4902

Zn++ oth diox/w 25°C 70% U K1=11.10 1968JSc (87475)4903

****

C14H13NO2 HL CAS 14489-88-4 (203)
N-3-Tolylbenzohydroxamic acid; C6H5.CO.N(C6H4.CH3).OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	70%	U T		K1=9.23	B2=16.99	1975SAa	(87491)4904

****

C14H13NO2 HL CAS 17120-15-9 (380)
N-Phenyl-2-methylbenzohydroxamic acid; CH3.C6H4.CO.N(C6H5)OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	diox/w	25°C	50%	U TI		K1=8.04	B2=14.44	1977AGb	(87509)4905

Zn++ gl diox/w 25°C 50% U T H K1=8.04 B2=14.44 1977AGc (87510)4906
At 35 C: K1=7.86, K2=6.21. DH(K1)=-31.7 and DH(K2)=-33.4 kJ mol-1

Zn++ gl diox/w 35°C 50% U K1=7.86 B2=14.07 1974ATa (87511)4907

Zn++ oth diox/w 30°C 50% U K1=8.16 B2=14.86 1973ASa (87512)4908
****
C14H13NO2 HL CAS 889-29-2 (6259)
N-Salicylidene-3-methoxyaniline; HO.C6H4.CH:N.C6H4.OCH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl alc/w 25°C 50% U K1=3.55 B2=6.60 1977DWa (87523)4909
****
C14H13NO3 H2L (1386)
2-Hydroxy-5-methoxybenzophenone oxime; HO(CH3O)C6H3.C(:NOH)C6H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 50% U K1=5.59 1982UVa (87535)4910
****
C14H13NO3 H2L CAS 51931-02-1 (5063)
N-(2-Hydroxy-1-naphthalidene)-beta-alanine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ oth NaClO4 30°C 0.10M U K1=4.95 1972MSe (87550)4911
****
C14H13NO3 HL CAS 34661-16-0 (1124)
N-Phenyl-2-methoxybenzohydroxamic acid; CH3O.C6H4.CO.N(C6H5)OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ EMF diox/w 25°C 50% U T H K1=8.84 B2=15.66 1977AGc (87562)4912
At 35 C: K1=8.63, K2=6.65. DH(K1)=-36.9 and DH(K2)=-29.9 kJ mol-1

Zn++ gl diox/w 35°C 50% U K1=8.63 B2=15.28 1974ATa (87563)4913
****
C14H13NO4S H2L (3660)
2-Aminobenzenesulfonic acid 2-hydroxyacetophenone Schiff base;
HSO3.C6H4.N:C(CH3).C6H4.OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 25°C 0.10M U T H K1=3.78 1977SMd (87570)4914
****
C14H13N3O2 HL (4045)
1-(4'-Acetylphenyl)-3-hydroxy-3-phenyltriazene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 25°C 70% U K1=7.79 B2=14.24 1964PSe (87592)4915
Medium: 70% dioxan, 0.1 M KCl
****
C14H13N3O2S HL CAS 40788-59-8 (6178)

2-Benzenesufonamidomethylbenzimidazole; C6H5SO2NHCH2C7H5N2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	mixed	20°C	50%	M		K1=8.12	1988NRa (87603)	4916

Medium: 0.25 M NaClO4 in 50% acetone

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	30°C	50%	C	M	K1=6.19 B2=11.99 K(Zn(gly)+L)=6.09 B(Zn(gly)L)=11.80	1987MSd (87604)	4917

Medium: 50% v/v dioxane/H2O, 0.2 M NaNO3.

****

C14H13N5OS HL (5394)
1-(2-Pyridylmethylideneamino)-3-(salicylideneamino)thiourea;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	mixed	25°C	40%	U		K1eff=4.69	1985RGa (87611)	4918

Medium: 40% DMF, pH 4.5

****

C14H13N5O2 HL (5393)
1-(2-Pyridylmethylideneamino)-3-(salicylideneamino)urea;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	mixed	25°C	32%	U		K1eff=4.50	1985RGa (87621)	4919

Medium: 32% DMF, pH 4.5

****

C14H13O2P HL CAS 3064-56-0 (7013)
2-(Diphenylphosphino)-ethanoic acid; (C6H5)2P.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	U		K1=1.3	1979POa (87630)	4920

****

C14H14N4 L CAS 98240-13-2 (4033)
N,N'-Bis(2'-picolinylidene)-1,2-diaminoethane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	dis	non-aq	25°C	100%	C	M		2001OHb (87676)	4921

Method: distribution from buffered 0.10 M NaCl into nitrobenzene.
K(Zn+3L(org)+2A=ZnL3A2(org))=14.4. HA is picric acid.

****

C14H15N2O8Cl H4L (1903)
4-Chloro-1,2-diaminobenzene-N,N,N',N'-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

---
Zn++ gl KCl 25°C 0.10M U K1=12.35 1990MDa (87737)4922
B(ZnHL)=15.54
****
C14H15N3O2 HL CAS 113749-54-5 (9003)
N,N-Bis(2-pyridinylmethyl)glycine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M M K1=9.08 2002YKa (87753)4923
****
C14H15N5O L CAS 74126-82-2 (5436)
2-Pyridyl-di(N-methylimidazol-2-yl)-methanol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.20M U K1=5.0 B2=9.30 1980BHa (87776)4924
****
C14H15N5OS HL CAS 220035-48-3 (8653)
alpha-Pyridoin 2-methylthiosemicarbazone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 50% U TIH K1=8.43 B2=15.76 1998OFa (87781)4925
Medium: 50% H2O/dioxane, 0.10 M KNO3. Data for 50% v/v H2O/dioxane, I =
0.05-0.20 M, and for 40 and 50 C at I=0.10. DH and DS values.
****
C14H15N5OS HL CAS 220035-52-9 (8654)
alpha-Pyridoin 4-methylthiosemicarbazone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl diox/w 30°C 50% U TIH K1=8.42 B2=15.72 1998OFa (87787)4926
Medium: 50% H2O/dioxane, 0.10 M KNO3. Data for 50% v/v H2O/dioxane, I =
0.05-0.20 M, and for 40 and 50 C at I=0.10. DH and DS values.
****
C14H16NO3P H2L CAS 25881-35-0 (1469)
Phenyl-N-(benzylamino)methylphosphonic acid; C6H5.CH(PO3H2).NH.CH2.C6H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 20°C 0.10M U K1=6.40 1985SIb (87804)4927
K(Zn+HL)=3.00
****
C14H16NO4P H3L CAS 61146-25-6 (1470)
2-Hydroxyphenyl-N-(benzylamino)methylphosphonic acid; C6H4(OH)CH(PO3H2).NH.CH2.C6H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaClO4 20°C 0.10M U K1=6.90 1985SIb (87817)4928

K(Zn+HL)=3.20

****

C14H16N2 L CAS 1620-43-7 (5033)
1,4-Bis(2'-pyridyl)butane; C5H4N.CH2.CH2.CH2.CH2.C5H4N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	20°C	0.10M	U		K1=1.0	1970BAa	(87833)4929
							K(Zn+HL) < 1		

****

C14H16N2O2 L CAS 52411-34-4 (2475)
2,2'(1,2-Ethanediylbis(oxy))bisaminobenzene; H2N.C6H4.OCH2CH2O.C6H4.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	25°C	85%	C	T		1983HBa	(87857)4930
							K1 < 1.3		

****

C14H16N2O8 H4L CAS 40774-59-2 (1901)
1,2-Diaminobenzene-N,N,N',N'-tetraethanoic acid; C6H4(N(CH2.COOH)2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	1.00M	C	H	K1=12.89	1992ANb	(87929)4931
By calorimetry: DH(K1)=4.1 kJ mol-1, DS=260 J K-1 mol-1									
Zn++	cal	NaClO4	25°C	1.00M	U	H	K1=12.89	1987MNa	(87930)4932
DH(K1)=-4.1 kJ mol-1; DS(K1)=260 J K-1 mol-1									
Zn++	gl	NaClO4	25°C	1.00M	C		K1=12.89	1985NKa	(87931)4933
							K(ZnL+H)=2.96		
							K(ZnHL+H)=1.3		
							K(ZnH-1L+H)=11.4		

****

C14H16N2O8 H4L CAS 103012-22-2 (1904)
1,3-Diaminobenzene-N,N,N',N'-tetraethanoic acid; C6H4(N(CH2.COOH)2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	U		K1=5.20	1968UHa	(87980)4934
							K(Zn+H2L)=1.8		
							K(Zn+HL)=3.95		
							B(Zn2L)=7.40		

****

C14H16N2O8 H4L (6108)
1,3-Phenylenediamine-N,N'-disuccinic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	25°C	0.50M	C	M	K1=3.966	1989FRa	(87986)4935

B(ZnH2L)=11.768
B(ZnHL)=8.483
B(Zn2L)=6.040
B(ZnLA)=6.59
B(ZnHLA)=12.35,B(ZnHLB)=11.68,B(ZnH2LB)=16.22,B(ZnH3LB)=20.22,B(ZnHLC)=11.74
B(ZnH2LC)=15.84, B(ZnH3LC)=20.23. H2A=Oxalic, H2B=Malonic, H2C=Succinic acid
****

C14H16N2O8 H4L CAS 3020-07-3 (1905)
1,4-Diaminobenzene-N,N,N',N'-tetraethanoic acid; C6H4(N(CH2.COOH)2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	C		K1=5.31	1997GHc	(88001)4936

B(ZnH2L)=13.85
B(ZnHL)=9.33
B(Zn2L2)=15.46
B(Zn2HL2)=19.84
B(Zn3HL3)=29.73, B(ZnH3L2)=24.02, B(Zn2H2L2)=23.83, B(Zn3L3)=25.77,
B(ZnH4L2)=27.22, B(ZnHL2)=16.30, B(Zn2L)=9.14, B(ZnH2L2)=20.74.
****

C14H16N2O8 H4L CAS 91856-15-4 (8449)
1,4-Phenylenediamine-N,N'-disuccinic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaCl	25°C	0.50M	C		K1=5.32 B2= 8.29	1984RFe	(88007)4937

B(ZnH2L)=12.2
B(ZnHL)=9.47
K(Zn+H2L)=0.95
K(Zn+HL)=2.84
****

C14H17N2O4P H3L (1472)
2-Hydroxyphenyl-N-(2-(2'-pyridyl)ethylamino)methylphosphonic
acid;C6H4(OH)CH(PO3H2)NHCH2CH2C5H4N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	20°C	0.10M	U		K1=8.15	1985SIb	(88037)4938

K(Zn+HL)=4.05
****

C14H17N5O3 HL Pipemidic acid CAS 51940-44-4 (2535)
8-Ethyl-5,8-dihydro-5-oxo-2-(1-piperazinyl)pyrido[2,3-d]pyrimidine-6-carboxylic
acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	sp	oth/un	25°C	0.05M	C			2000MPa	(88054)4939

K1eff=3.45
Medium: 0.05 M ethanoate buffer, pH=5.5. Method: spectrofluorimetry.
****

C14H18N2O HL (5069)
1-Phenyl-3-methyl-4-butylpyrazol-5-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	dis	NaClO4	?	0.10M	U		K1=3.03	B2=6.06	1971NSb (88057)	4940

C14H18N2O2 HL (7898)
1-(2-Hydroxyphenyl)-2,5-diaza-8-oxonona-1,5-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	alc/w	25°C	0.2M	U		K1=4.78	1999MTc (88061)	4941

Medium: 0.2 M KCl in 3:7 v/v H2O/EtOH

C14H18N2O5 HL Aspartame CAS 22839-47-0 (417)
Aspartyl-phenylalanine methyl ester; H2NCH(CH2COOH)CONHCH(CH2Ph)COOCH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	37°C	0.15M	C		K1=3.80	B2=6.87	1976MTa (88074)	4942
							B(ZnHL)=9.33			
							B(ZnHL2)=13.21			
							B(ZnH-1L)=-4.7			

C14H18N2O5 H2L HIDA (6633)
N-(2,6-Dimethyl-phenylcarbamoylmethyl)iminodiethanoic acid;
(CH3)2C6H3.NH.CO.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.50M	U		K1=6.62	B2=8.47	1992GLa (88080)	4943
							B(ZnH-1L)=-0.73			
							B(ZnH-2L)=-10.69			

C14H18N4 L DPEN CAS 4608-34-3 (1850)
N,N'-Bis-(2-pyridylmethyl)-1,2-diaminoethane; (C5H4N.CH2.NH.CH2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	25°C	0.10M	U	H	K1=11.13	1975APc (88099)	4944

DH(K1)=-47.3 kJ mol-1, DS=54.8 J K-1 mol-1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	25°C	0.10M	U		K1=11.4	1968GRa (88100)	4945
Zn++	gl	oth/un	25°C	0.10M	U		K1=11.5	1964PCa (88101)	4946

C14H18N6O4 HL CAS 432038-60-3 (8908)
N-Acetyl-L-histidyl-L-histidine;

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=3.35        2002VVa (88120)4947
                                          B(ZnH-1L)=-3.74
**************************************************************************
C14H18O2               HL                     CAS 41070-28-4  (5035)
2-Toluoyl pivaloyl methane; CH3.C6H4.CO.CH2.CO.C(CH3)3
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  75%  U        K1=9.66   B2=18.69  1972UDa (88123)4948
Medium: 75% v/v dioxan, 0.01 M Me4NClO4
**************************************************************************
C14H18O2               HL                     CAS 41070-24-0  (5036)
4-Toluoyl pivaloyl methane; CH3.C6H4.CO.CH2.CO.C(CH3)3
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  75%  U        K1=9.98   B2=19.03  1972UDa (88128)4949
Medium: 75% v/v dioxan, 0.01 M Me4NClO4
**************************************************************************
C14H18O3               HL                     CAS 41070-25-1  (5037)
2-Anisoyl pivaloyl methane; CH3O.C6H4.CO.CH2.CO.C(CH3)3
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  75%  U        K1=10.01  B2=18.72  1972UDa (88133)4950
Medium: 75% v/v dioxan, 0.01 M Me4NClO4
**************************************************************************
C14H18O3               HL                     CAS 41070-23-9  (5038)
4-Anisoyl pivaloyl methane; CH3O.C6H4.CO.CH2.CO.C(CH3)3
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  diox/w 30°C  75%  U        K1=10.0   B2=19.11  1972UDa (88138)4951
Medium: 75% v/v dioxan, 0.01 M Me4NClO4
**************************************************************************
C14H20N6O3              L                      CAS 432038-56-7  (8907)
L-Histidyl-L-histidine ethyl ester;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=5.70        2002VVa (88189)4952
                                          B(ZnHL)=11.70
                                          B(ZnH-1L)=-1.20
                                          B(ZnH-2L)=-10.26
**************************************************************************
C14H20O5                L    Benzo15-crown-5  CAS 14098-44-3  (608)
2,3-Benzo-1,4,7,10,13-pentaoxacyclopentadeca-2-ene;
--------------------------------------------------------------------------
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	con	mixed	25°C	90%	C		K1=2.14	2003ISa (88206)	4953

Medium: 90% v/v DMSO/H2O.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	con	alc/w	25°C	40%	C		K1=2.01	2001ISa (88207)	4954

Medium: 40% v/v EtOH/H2O.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	nmr	non-aq	27°C	100%	C		K1=3.44	2000SMg (88208)	4955

Medium: acetonitrile. Method: competitive 7Li nmr technique.

****

C14H21NO7 HL CAS 85906-10-1 (6635)
2-(Benzylamino)-2-deoxy-D-glycero-D-gulo-heptonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	U		K1=3.88 B2=6.33 B(ZnH-1L)=-5.4 B(ZnH2L2)=20.8	1992VDa (88406)	4956

****

C14H21N7O6 HL GlyGlyHisGlyGly CAS 60343-81-9 (73)
Glycyl-glycyl-histidyl-glycyl-glycine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	37°C	0.15M	U		K1=2.91 B(ZnHL)=9.46 B(ZnH-1L)=-4.23 B(Zn2L2)=9.06 B(Zn2H-1L2)=2.24	1977APa (88418)	4957

****

C14H22N2O8 H4L CDTA CAS 482-54-2 (200)
trans-1,2-Diaminocyclohexane-N,N,N',N'-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	KNO3	25°C	1.0M	U	I	K1=18.0	1967JGb (88528)	4958

K1=18.5(I=0.1)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	cal	KNO3	25°C	0.10M	U T	H		1965WHa (88529)	4959

DH(K1)=-32.2 kJ mol-1, DS=247 J K-1 mol-1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	cal	KNO3	20°C	0.10M	U T	H		1963ANb (88530)	4960

DH(K1)=-8.1 kJ mol-1, DS=342 J K-1 mol-1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	20°C	0.10M	U	H	K1=19.32	1963ANf (88531)	4961

By calorimetry: DH(K1)=-8.1 kJ mol-1, DS=343 J K-1 mol-1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	EMF	KNO3	25°C	0.10M	U		K1=18.6	1960HRa (88532)	4962

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Zn++       vlt KNO3   20°C 0.10M U        K1=18.67       1954SGa (88533)4963
                                          K(ZnL+H)=4.07
*******************************************************************************
C14H22N2O10          H5L                          (1083)
1-Carboxy-1,5-diaminopentane-N,N,N',N'-tetraethanoic acid;
(HOOCCH2)2NCH(COOH)(CH2)4N(CH2COOH)2
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M U        K1=13.30       1988TGe (88895)4964
                                          K(Zn+H2L)=3.71
                                          K(Zn+HL)=10.38
                                          B(Zn2L)=18.70
                                          B(Zn2L2)=29.62
*K(ZnH2L)=-3.21, *K(ZnHL)=-6.02.
*******************************************************************************
C14H22N4O              L                          (5979)
1-((6-(Dimethylamino)methyl)-2-pyridyl)methyl)hexahydro-5H-1,4-diazepin-5-one;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  NaClO4 50°C 0.50M C        K1=4.32        1984GCb (88908)4965
Data also for complex with other lactam.
*******************************************************************************
C14H22N4O8P2S        H3L    HETPP            CAS 10241-38-0  (6093)
2-(1 Hydroxyethyl)thiamine pyrophosphate;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  KCl    25°C 0.20M U                        2000MLa (88911)4966
                                          K(2Zn+2HL+2H=Zn2H4L2)=21.62
                                          K(2Zn+2HL+H=Zn2H3L2)=16.45
                                          K(2Zn+2HL=Zn2H2L2)=11.01
*******************************************************************************
C14H22N4O9           H3L    Ala-Ala-Asp-Asp    (6444)
Alanyl-alanyl-aspartyl-aspartic acid;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=3.77        1995KLa (88916)4967
                                          B(ZnH-1L)=-4.77
                                          B(ZnH-2L)=-14.42
*******************************************************************************
C14H22N4O9           H3L    Ala-Asp-Ala-Asp    (6443)
Alanyl-aspartyl-alanyl-aspartic acid;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Zn++       gl  KNO3   25°C 0.10M C        K1=3.84        1995KLa (88920)4968
                                          B(ZnH-1L)=-4.73
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B(ZnH-2L)=-13.77
****
C14H22N4O9 H3L Ala-Asp-Asp-Ala (6442)
Alanyl-aspartyl-aspartyl-alanine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
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Zn++ gl KNO3 25°C 0.10M C K1=3.69 1995KLa (88924)4969
B(ZnH-1L)=-4.50
B(ZnH-2L)=-13.10
****
C14H22N4O9 H3L Asp-Ala-Ala-Asp (6441)
Aspartyl-alanyl-alanyl-aspartic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C K1=4.88 1995KLa (88928)4970
B(ZnH-1L)=-4.00
B(Zn(H-3L)=-12.57
****
C14H22N6O4 L CAS 204922-29-2 (7538)
1-(2,4-Dinitrophenyl)-1,4,7,10-tetraazadodecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaNO3 25°C 0.10M C K1=7.89 1998KGa (88960)4971
****
C14H22N6O5 HL Asp-Ala-His-Me CAS 66277-14-3 (2223)
Aspartyl-alanyl-histidine-N-methylamide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl KNO3 25°C 0.10M C M K1=4.17 B2=6.43 1983DOa (88974)4972
B(ZnHL)=10.02
B(ZnH-1L)=-4.09
B(CuZnH-2L)=0.39

Zn++ gl KNO3 25°C 0.16M M K1=4.75 B2=8.15 1979LSa (88975)4973
B(ZnHL)=9.95
B(ZnH-1L)=-4.34
****
C14H22N8O2 L (7443)
N,N'-Di(histidyl)-1,2-diaminoethane; C3H3N2CH2CH(NH2)CONHCH2CH2NHCOCH(NH2)CH2C3H3N2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Zn++ gl NaCl 25°C 0.10M C T 1998TGa (88981)4974
B(ZnHL)=12.33
B(Zn2L2)=16.47
B(Zn4H-4L2)=-2.29

B(Zn4H-5L2)=-11.56
B(Zn4H-6L2)=-21.15, B(ZnH-2L)=-11.77. Also data at 90 C.

****

C14H22O5 H2L CAS 85785-29-1 (2250)
Di(hepta-4,6-dione)ether, (CH3.CO.CH2.CO.(CH2)3)2O

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	diox/w	24°C	50%	U		K1=8.8	1979ACa	(88987)4975

****

C14H22O8S4 H4L (1160)
Ethane-tetramercaptopropanoic acid; (CH.(S.CH2.CH2.COOH)2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	U		K1=3.00	1975PJa	(88997)4976

****

C14H23N3O10 H5L DTPA CAS 67-43-6 (238)
Diethylenetriamine-pentaethanoic acid; HOOC.CH2.N(CH2.CH2.N(CH2.COOH)2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	C		K1=18.29	2001CCa	(89087)4977
							K(ZnL+H)=5.60		
							K(ZnHL+H)=3.06		
Zn++	vlt	KNO3	25°C	0.10M	C		K1=18.61	2001CKb	(89088)4978
Method: cyclic voltammetry. Medium: pH 10.									
Zn++	nmr	mixed	25°C	0.10M	U			1998LVa	(89089)4979
							K(LaL+Zn)=1.53		
Method: 13C nmr. Medium: 30% D2O/H20, 0.1 M metal ion, pH=6.5.									
Also data for the formation of borate esters.									
Zn++	gl	NaCl	37°C	0.15M	C		K1=17.45 B2=21.78	1984DMb	(89090)4980
							B(ZnHL)=22.53		
							B(ZnH2L)=24.88		
Zn++	gl	oth/un	25°C	0.10M	U	H	K1=18.8	1974DTa	(89091)4981
DH=-44.3 kJ mol-1									
Zn++	sp	oth/un	20°C	0.0	U		K1=18.73	1968KAb	(89092)4982
Zn++	cal	KNO3	20°C	0.10M	U	T H		1965ANa	(89093)4983
DH(K1)=-36.8 kJ mol-1, DS=230 J K-1 mol-1									
Zn++	cal	KNO3	25°C	0.10M	U	H		1965WHa	(89094)4984
DH(K1)=-44.3 kJ mol-1, DS=209 J K-1 mol-1									
Zn++	EMF	KNO3	25°C	0.10M	U		K1=18.8	1960HRa	(89095)4985

Zn++ gl KNO3 25°C 0.10M C K1=18.0 1960WAa (89096)4986
K(ZnL+H)=5.6

Zn++ EMF oth/un 20°C 0.10M U K1=18.75 1959ANd (89097)4987
K(ZnL+Zn)=4.36
K(Zn+HL)=13.40

Zn++ gl KNO3 25°C 0.10M U K1=18.3 B2=22.8 1959CFc (89098)4988

Zn++ gl oth/un 20°C 0.10M U K1=18.17 1958DRa (89099)4989

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C14H23N3S2 L CAS 771500-58-4 (9194)
5-(3-Aminopropyl)-2,8-dithia-5-aza-2,6-pyridinophane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

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Zn++ gl R4N.X 25°C 0.10M C K1=8.5 2004BBe (89457)4990
K(ZnL+H)=6.0
K(ZnL+OH)=6.1

Medium: 0.1 M Me4NO3

****

C14H23N5O5S2 H2L (7586)
N-Acetyl-cysteinyl-(R)-Apa-cysteine amide;
CH3CONHCH(CH2.SH)CONHC4H5NOCH2CONHCH(CH2SH)CONH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ gl KNO3 25°C 0.10M C K1=9.25 1998GGb (89465)4991
B(Zn2L2)=23.34

****

C14H24N2O7 H3L (3440)
N-(2-Hydroxycyclohexyl)ethylenediamine-N,N',N'-triethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

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Zn++ gl oth/un 25°C 0.10M U K1=15.02 1960SAc (89488)4992

****

C14H24N2O8 H4L (5075)
1,2-Diaminoethane-N,N'-diethanoic-N,N'-di-2-butyric acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

---

Zn++ vlt KNO3 20°C 0.10M U K1=16.04 1969NDc (89499)4993

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C14H24N2O8 H4L (7165)
1,2-Diaminohexane-N,N,N',N'-tetraethanoic acid; (HOOCCH2)NCH2CH(C4H9)N(CH2COOH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

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Zn++ vlt KNO3 20°C 0.10M U K1=18.18 1974NLa (89524)4994

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C14H24N2O8 H4L HMDTA CAS 1633-00-7 (920)

1,6-Diaminohexane-N,N,N',N'-tetraethanoic acid; ((HOOC.CH2)2N.CH2.CH2.CH2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KNO3	20°C	0.10M	U	H	K1=12.68 K(Zn+HL)=8.15 K(ZnL+Zn)=3.7	1964ANa	(89553)4995

By calorimetry:DH(K1)=-16.7 kJ mol-1, DS=186 J K-1 mol-1

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C14H24N2O8 H4L CAS 1633-00-7 (5076)

4-Methyl-1,2-diaminopentane-N,N,N',N'-tetraethanoic acid;
(HOOCCH2)2NCH2CH(N(CH2COOH)2CH2CH(CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	vlt	KNO3	20°C	0.10M	U		K1=18.03	1968NLb	(89622)4996

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C14H24N2O8 H4L EDTP (2936)

Diaminoethane-N,N,N',N'-tetrapropanoic acid; (HOOC.CH2CH2)2N.CH2CH2.N(CH2CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	NaClO4	25°C	0.10M	C	I	K1=9.31 B(ZnHL)=13.71	1989LKa	(89669)4997
Zn++	gl	KCl	30°C	0.10M	U		K1=7.8	1953CCb	(89670)4998

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C14H24N2O9 H4L CAS 87720-52-3 (1593)

2,2'-Oxybis(propyliminodiethanoic acid)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Zn++	gl	KCl	20°C	0.10M	U		K1=13.53 K(Zn+HL)=9.19	1961ISa	(89701)4999

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EXPLANATORY NOTES

DATA Flags are :-

T Data at other TEMPERATURES
I Data with various BACKGROUNDS
H Data for THERMOCHEMICAL quantities
M Data for TERNARY Complexes

EVALUATION Flags are :-

T or IUP=T signifies EVALUATION RATING = Tentative by IUPAC
R or IUP=R signifies EVALUATION RATING = Recommended by IUPAC

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