SC-Database
Software version = 5.81 Data version = 4.62
Experiment list contains 2363 experiments for
 (no ligands specified)
 2 metals : Pb++, Pb++++
 (no references specified)
 (no experimental details specified)

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e- HL Electron (442)

Electron;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	EMF	non-aq	30°C	100%	U		1974BNb (772)		1
							K=-11.20(-336.8mV) M units		
Medium: N,N-dimethylformamide; K: PbCl2(s) + 2e=Pb(s) + 2Cl-									
Pb++	EMF	none	25°C	0.00	U		1971VGa (773)		2
							K=-4.182(-123.7mV)		
K: Pb++ + 2e=Pb(s)									
Pb++	EMF	non-aq	25°C	100%	U	T	1954PSa (774)		3
							K=-6.52(-193mV) M units		
Medium: formamide; K: Pb++ + 2e=Pb(s). K=-6.68(-193mV,18 C) M units									
Pb++	EMF	none	25°C	0.0	U	T	1941IVa (775)		4
							K=-11.84(-350.2 mV)		
K: PbF2(s)+2e=Pb(s)+2F. K=-11.91(15 C;-340.2 mV),-11.81(35 C;-360.9 mV)									
Pb++	EMF	none	25°C	0.0	U		1939HHa (776)		5
							K(Pb+2e=Pb(s))=-4.23(-125.1mV)		
Pb++	EMF	none	25°C	0.0	U		1937FAa (777)		6
							K(Pb+2e=Pb(s))=-4.31(-127.4mV)		
Pb++	EMF	none	25°C	0.0	U	T	1935HHa (778)		7
							K=-12.02(-355.3 mV)		
K: PbSO4(s)+2e=Pb(s)+SO4. K=-12.22(0 C;-331.0 mV),-12.08(15 C;-345.2 mV), -11.88(50 C;-380.6 mV),-11.83(60 C;-391.0 mV)									
Pb++	EMF	none	25°C	0.0	U	T	1934SCa (779)		8
							K=-11.85(-350.5 mV)		
K: PbSO4(s)+2e=Pb(in Pb-Hg,2-phase)+SO4. K=-12.11(0 C;-328.1 mV), -11.97(12.5 C;-339.2 mV),-11.75(37.5 C;-361.9 mV),-11.66(50 C;373.8 mV)									
Pb++	EMF	none	25°C	0.0	U		1932CAa (780)		9
							K(Pb+2e=Pb(s))=-4.27(-126.3mV)		
Pb++	EMF	none	25°C	0.0	U	T	1923SWa (781)		10

K=8.44(249.4 mV)
K: PbO(s,r)+2H+2e=Pb(s)+H2O. K=7.70(45 C;243.0 mV)

Pb++ EMF oth/un 18°C 8.40M U 1922GRa (782) 11
K=-21.23(-613 mV)
Medium: KOH. K: Pb(OH)4+2e=Pb(s)+4OH ?

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	oth	oth/un	25°C	0.0	U			1990SAa (1156)	12
							*K(Pb3L2(s)+2H=3Pb+2HL)=-9.07		
Calculated from thermodynamic data.									
Pb++	sol	oth/un	20°C	var	U			1956CHc (1157)	13
							Kso(Pb3L2)=-35.39		

****

BF4- HL (2497)
Tetrafluoroborate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	non-aq	22°C	100%	U		B2=7.5	1988BEb (1201)	14
Medium: CH2Cl2									

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	oth	KNO3	25°C	0.70M	C		K1=2.20 B2=4.41	1984BEa (1323)	15
Method: Differential pulse anodic stripping voltammetric (DPASV)									
Pb++	vlt	NaClO4	25°C	0.70M	C		K1=<3.5 B2= 7.08	1983TVa (1324)	16
Methods: DC, NP and DP polarography.									
Pb++	sol	none	22°C	0.0	U		K1=5.21	1963SHb (1325)	17
							B3=11.17		
							Kso=-10.78		

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	NaClO4	25°C	1.00M	U		K1=1.10 B2=1.38	1990HEa (2158)	18
							B3=2.38		
Method: lead amalgam electrode.									

```
-------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 4.06M U        K1=1.34   B2=2.19   1989FSb  (2159)  19
                                          B3=3.10
                                          B4=3.03
                                          B5=3.15
                                          B6=2.14
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C  1.0M C        K1=1.35   B2= 2.25  1988MFb  (2160)  20
                                          B3=3.26
Analysis of literature data, applying correction for adsorption on Hg drop
-------------------------------------------------------------------------------
Pb++       sp  oth/un 25°C 1.00M U        K1=1.12   B2=1.66   1982BYa  (2161)  21
                                          B3=2.07
                                          B4=1.77
Medium: mixed HBr-HClO4 solutions.
-------------------------------------------------------------------------------
Pb++       ISE non-aq 295°C 100%  U T H    K1=2.18   B2=4.06   1982GGa  (2162)  22
Medium: molten KNO3-Ba(NO3)2 (87.6:12.4 mol%). Data also at 285, 332 C
-------------------------------------------------------------------------------
Pb++       sp  non-aq 25°C 100%  U                      1982JAa  (2163)  23
                                          K(PbBr3+Br)=1.6
Medium: propylene carbonate, LiBr
-------------------------------------------------------------------------------
Pb++       dis NaClO4 25°C 1.00M U        K1=0.93   B2=1.6    1982KSa  (2164)  24
                                          B3=2.0
-------------------------------------------------------------------------------
Pb++       ISE non-aq 25°C 100%  U        K1=4.5    B2=8.3    1982SSc  (2165)  25
                                          B3=10.9
Medium: dimethylacetamide
-------------------------------------------------------------------------------
Pb++       EMF oth/un 25°C  0.0  C T H    K1=1.62         1981PPa  (2166)  26
Method: Ag/AgBr,Br- electrode. Extrapolated from data for 0.014-0.03 M
(PbBr2/HBr). Data for 5-35 C. DH(K1)=8.14 kJ mol-1, DS(K1)=59 J K-1 mol-1.
-------------------------------------------------------------------------------
Pb++       ISE oth/un 50°C  var  U TI     K1=2.43   B2=4.68   1979ZMa  (2167)  27
Medium: Ca(NO3)2.aNH4NO3.xH2O. Data quoted applies when a= 1.5 and x= 5.77.
Further data available for 50 to 65 C and for various a and x values
-------------------------------------------------------------------------------
Pb++       ISE KNO3   25°C 0.10M C        K1=1.50         1977BLc  (2168)  28
                                          Kso(PbBr2)=-4.32
Method: Pb and Ag/AgBr ion selective electrodes.
-------------------------------------------------------------------------------
Pb++       ISE diox/w 25°C  30%  U  I     K1=1.73   B2=2.73   1976DFa  (2169)  29
                                          B3=3.67
                                          B4=2.22
Pb(Hg)-electrode; Medium: 30% w/w dioxan/H2O, LiClO4
-------------------------------------------------------------------------------
Pb++       sol NaClO4 25°C 1.00M U  I     K1=1.18         1976FSa  (2170)  30
-------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C  1.0M U        K1=1.09   B2=1.41   1973BHb  (2171)  31
```

B3=2.36

Method: Pb amalgam electrode

Pb++ kin NaClO4 25°C 0.10M U I K1=1.35 1973HHb (2172) 32

K1=1.16(I=1)

Pb++ ISE non-aq 25°C 100% U K1=4.48 B2=6.81 1973SLb (2173) 33

B3=7.64

Medium: DMSO, 1 M (Li,Na)ClO4. Using least squares: K1=4.46,B2=6.76,B3=7.59.

Pb amalgam electrode

Pb++ sp NaClO4 25°C 4.0M U 1973VIa (2174) 34

K1=1.505-0.013 C

B2=1.443-0.002 C

B3=2.996-0.095 C

B4=2.693+0.054 C

B5=2.653+0.06 C;log Kso=-3.943+0.244C;C=total conc. bromide. Also PbHg electrode & solubility

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Pb++ EMF NaClO4 25°C 2.0M U I K1=1.20 B2=1.40 1972FSe (2175) 35

B3=2.36

B4=2.48

B5=1.54

Medium:LiClO4. K1=1.06, B2=1.75, B3=2.04(I=0.5); K1=1.04, B2=1.78, B3=2.20, B4=2.00(I=1); K1=1.28, B2=2.30, B3=2.86, B4=3.03, B5=2.3(I=3)

Pb++ EMF none 25°C 0.0 U I K1=1.64 B2=2.49 1972FSe (2176) 36

B3=2.86

B4=2.20

In 4M LiClO4: K1=1.51, B2=2.66, B3=3.38, B4=3.55, B5=3.4

Pb++ EMF R4N.X 40°C ? U T K1=2.09 B2=3.60 1972NGa (2177) 37

Medium: NH4NO3(H2O)2; K1=2.04,K2=1.66(55 C); K1=2.00,K2=1.68(70 C). DH(K1)= -10.9 kJ mol-1. At 70 C, 1.5H2O: K1=2.08,K2=1.92. 3H2O: K1=1.89,K2=1.76

Pb++ EMF none 25°C 0.0 U K1=1.69 B2=1.9 1972SFa (2178) 38

B3=2.9

Pb++ vlt NaClO4 25°C 1.0M U K1=1.40 B2=2.30 1971BHb (2179) 39

B3=3.30

Pb++ sol NaClO4 25°C 3.0M U K1=1.28 1970FSb (2180) 40

B(Pb2L)=0.8

Medium: LiClO4

Pb++ EMF non-aq 25°C 100% U K1=3.4 B2=6.3 1970SZa (2181) 41

B3=9.0

B4=11.8

Medium: DMF, 1 M LiClO4

```
Pb++       EMF non-aq 250°C 100%  U        K1=2.66   B2=4.74   1969GSe  (2182)  42
Medium: (Na,K)NO3
-------------------------------------------------------------------------------
Pb++       oth non-aq 700°C 100%  U                    1968BHa  (2183)  43
                                        K3=0.7
Methods:partial pressure of PbBr2, mass spectrometry.  Medium:KBr/PbBr2 melt
-------------------------------------------------------------------------------
Pb++       ISE NaClO4  5°C  3.0M U T      K1=1.34   B2=2.33   1968FSc  (2184)  44
                                        B3=2.92
                                        B4=3.19
Method:amalgam electrode. Medium:LiClO4. At 65 C: K1=1.31,B2=2.27,B3=2.88,
B4=2.73. DH(K1)=-2.2 kJ mol-1,DH(B2)=-5.8,DH(B3)=-6.2,DH(B4)=-15.5
-------------------------------------------------------------------------------
Pb++       vlt non-aq 145°C 100%  U        K1=1.87   B2=3.25   1968ILa  (2185)  45
Medium:(Li/Na/K)NO3 eutectic. m units
-------------------------------------------------------------------------------
Pb++       sol oth/un 25°C  4.0M U        K1=1.07   B2=2.20   1966NHb  (2186)  46
                                        B4=3.43
                                        B6=2.87
Medium: H2SO4
-------------------------------------------------------------------------------
Pb++       sol non-aq 275°C 100%  U T      K1=1.30       1965SPa  (2187)  47
Medium: (Na,K)NO3. K1=1.28(300 C) m units
-------------------------------------------------------------------------------
Pb++       EMF NaClO4 25°C  3.0M U        K1=1.30   B2=1.90   1964BLc  (2188)  48
                                        B3=2.5
                                        B4=2.81
                                        Kso=-5.28
-------------------------------------------------------------------------------
Pb++       EMF NaClO4 25°C  3.0M U                    1964BLc  (2189)  49
                                        K(Pb+2Br+Br2=Pb(IV)Br4)=3.58
                                        K(Pb+4Br+Br2=Pb(IV)Br6)=4.23
-------------------------------------------------------------------------------
Pb++       ISE non-aq 200°C 100%  U T      K1=2.86   B2=5.34   1964BMa  (2190)  50
Medium: molten (Li/K)NO3. At 160 C:K1=3.00, K2=2.60,   x units
-------------------------------------------------------------------------------
Pb++       dis non-aq 450°C 100%  U        K1=0.82   B2=1.7    1963KEb  (2191)  51
Medium: liquid KNO3. m units. Kd(PbBr2(in KNO3)=PbBr2(in AgNO3))=0.26
-------------------------------------------------------------------------------
Pb++       EMF non-aq 240°C 100%  U T      K1=2.40   B2=4.50   1963MBc  (2192)  52
Method: Ag electrode. K1=2.28(280 C), 2.23(300 C). K2=1.93(280 C), 1.85
(300 C). Medium: liquid Na0.5K0.5NO3, x units. Also data for 25 and 75% Na.
-------------------------------------------------------------------------------
Pb++       EMF oth/un 25°C  4.0M U   H                1963MId  (2193)  53
                                        K(Na+PbBr4)=-0.96
                                        K(K+PbBr4)=0.00
                                        K(Rb+PbBr4)=0.15
                                        K(Cs+PbBr4)=0.26
Method: Pb/Hg electrode. Medium: LiClO4. At 35C: K(K+PbBr4)=-0.12, DH=-21 kJ
mol-1; DS=-71 J K-1 mol-1
```

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-------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C  6.0M U  I     K1=1.70   B2=3.28   1963MKb  (2194)  54
                                          B3=3.90
                                          B4=4.65
Method:amalgam electrode. At I=3:K1=1.30,B2=1.90,B3=2.88,B4=2.81,B5=2.3
I=1:K1=1.04,B2=1.45,B3=2.23,B4=1.54. Also in 4 M LiClO4, NaNO3 and NaCl
-------------------------------------------------------------------------------
Pb++       ISE NaNO3  25°C  4.0M U  I     K1=0.72   B2=0.85   1963MKb  (2195)  55
                                          B3=1.0
                                          B4=0.93
                                          B5=0.1
                                          B6=-0.3
Method:amalgam electrode.   (I=1):K1=0.60, B2=1.00, B3=1.26
also values for I=3,2,0.75
-------------------------------------------------------------------------------
Pb++       sol non-aq 275°C 100%  U        K1=1.11   B2=1.9    1962VOa  (2196)  56
                                          K3=0.6
                                          K(PbCrO4(s)=Pb+CrO4)=-6.79
Medium: liquid Na0.5K0.5NO3. m units.
-------------------------------------------------------------------------------
Pb++       EMF non-aq 255°C 100%  U T      K1=1.26       1961DGb  (2197)  57
Method: Ag electrode. Medium: liquid (Na,K)NO3. K1=1.15(303 C), 1.05(319 C),
K2=0.79(306 C)
-------------------------------------------------------------------------------
Pb++       EMF NaClO4 25°C  4.0M U  I     K1=1.45   B2=2.12   1961KMc  (2198)  58
                                          B3=3.28
                                          B4=2.84
                                          Kso(PbL2)=-5.68
Method: Pb/Hg elect. I=6 M: K1=1.70,B2=3.28,B3=3.90,B4=4.65; I=2 M: K1=1.28,
B2=1.40,B3=2.54. By solubility, 4 M: K1=1.50,B2=2.48,B3=3.26,B4=3.30,B5=3.30
-------------------------------------------------------------------------------
Pb++       EMF NaClO4 25°C  4.0M U  I     K1=1.54   B2=2.65   1961KMc  (2199)  59
                                          B3=3.30
                                          B4=3.76
Method: Pb/Hg electrode. Medium: LiClO4
-------------------------------------------------------------------------------
Pb++       EMF NaClO4 25°C  4.0M U        K1=1.54   B2=2.65   1961MId  (2200)  60
                                          B3=3.30
                                          B4=3.76
                                          B5=2.5
                                          B6=2.2
Method: Pb/Hg electrode. Medium: LiClO4. For solutions with [Br-]=[Cs+]
K1=1.54, B2=2.74, B3=3.5, B4=3.9, B5=3.9, B6=3.4, B7=3.3.
-------------------------------------------------------------------------------
Pb++       EMF NaClO4 25°C  5.0M U                      1960FSb  (2201)  61
                                          B4=2.85
Method: Pb/Hg electrode
-------------------------------------------------------------------------------
Pb++       vlt non-aq   ?  100%  U        K1=1.6    B2=2.0    1960HSc  (2202)  62
                                          B3=2.3
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B4=3.33

Medium: HCONH2, 1 M NaClO4?.

Pb++ sol non-aq 250°C 100% U T K1=1.26 B2=2.0 1958DIc (2203) 63
K3=0.0

Medium: liquid (Na,K)NO3. K1=1.11(275 C), 1.04(300 C), K2=0.3(275 C), K2=0.3(300 C), K3=0.0(275 C), 0.3(300 C). m units.

Pb++ sol oth/un 25°C dil U T M 1958TPb (2204) 64
Kso(PbFBr)=-8.48

Kso=-9.09(0 C), -7.96(50 C), -7.51(75 C), -7.17(100 C)

Pb++ EMF none 17°C 0.0 U K1=2.22 1956CHa (2205) 65
K(PbBrOH(s)=Pb+Br+OH)=-14.8
Kso(PbBr0.5OH1.5)=-17.45

Method: Ag electrode, conductivity, and glass electrode. I=0 corr.

Pb++ ix NaClO4 20°C 1.0M U K1=1.56 B2=2.00 1956KAa (2206) 66

Pb++ vlt NaClO4 25°C 1.0M U K1=1.11 B2=1.43 1956KIb (2207) 67
K3=0.75

Pb++ sp none 25°C 0.0 U K1=1.77 1955BPa (2208) 68

Pb++ con none 25°C 0.0 U T H K1=1.47 1955NAa (2209) 69

I=0 corr. DH(K1)=12.0 kJ mol-1; DS=68.6 J K-1 mol-1. K1=1.54(35 C)

Pb++ sp none 18°C 0.0 U I K1=1.85 1955PPa (2210) 70

I=0 corr. K1 also for H2O/MeOH

Pb++ EMF none ? 0.0 U K1=2 1951CHa (2211) 71
K(PbBrOH(s)=Pb+Br+OH)=-14.70
Kso(PbBr0.5(OH)1.5)=-17

Method: Ag electrode, glass electrode and solubility. I=0 corr.

Pb++ vlt oth/un 25°C var U B2=1.92 1951VPa (2212) 72
B4=3.00

Pb++ EMF none 25°C 0.0 U 1932CSa (2213) 73
K(PbBr2(s)=Pb+2Br)=-4.41

Method: Pb/Hg electrode. I=0 corr.

Pb++ sp none 22°C 0.0 U K1=1.15 1931FLa (2214) 74

Pb++ sol oth/un 25°C var U 1926BUa (2215) 75
B3=3.3

Pb++ sol oth/un 25°C var U K1=1.14 1901ENa (2216) 76
Kso(PbL2)=-4.56
K(PbL2(s)=PbL+L)=-3.42

```
                                          K(PbL2(s)=PbL2)=-2.97
********************************************************************************
BrO3-                  HL    Bromate            (6017)
Bromate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       sol none   25°C  0.0  U        K1=1.84        1936MHa  (2428)  77
                                          Kso(PbL2)=-5.10
********************************************************************************
CN-                    HL    Cyanide          CAS 74-90-8  (230)
Cyanide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       ISE non-aq 183°C 100%  U        K1=2.4         1966BJa  (2750)  78
Medium: molten KSCN, 180-185 C, ion fraction units
--------------------------------------------------------------------------------
Pb++       vlt oth/un   ?   1.0M U                       1941KLa  (2751)  79
                                          B4=10.3?
Medium: KCN.
********************************************************************************
CO3--                  H2L   Carbonate        CAS 465-79-6  (268)
Carbonate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 3.00M C                       1992NEa  (3319)  80
                                          B(1,-1,1)=-6.09
                                          B(2,-2,1)=-10.51
                                          B(3,-2,1)=-9.20
B(p,q,r); pPb+qH+rCO2(g)+r(H2O)=(Pb)pHq(CO2)r(H2O)r
--------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 3.00M C        B2=8.9         1987FGb  (3320)  81
                                          B(Pb(OH)L)=10.9
--------------------------------------------------------------------------------
Pb++       oth oth/un 25°C  0.0  C   H    K1=7.20        1984FCa  (3321)  82
                                          K(Pb+HCO3)=1.90
K(Pb+HCO3) calc using electrostatic model. K1 from assessment of lit data.
DH(K1)=-17.1 kJ mol-1, DH(Pb+HCO3)=3.6 (from DS calc by electrostat model)
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.30M U                       1982BSa  (3322)  83
                                          Kso=-12.15
                                          *Kso=5.20
Further data are available for various combinations of M and L.
--------------------------------------------------------------------------------
Pb++       oth oth/un 25°C 0.70M C        K1=6.20   B2= 9.96  1980SRa  (3323)  84
Recalculation of literature data with allowance for alkali and alkaline
earth ion pairs. Medium: synthetic seawater, 0.70 M NaCl/NaClO4.
--------------------------------------------------------------------------------
```

Pb++ vlt KNO3 25°C 0.10M U K1=6.1 1979BKa (3324) 85

Pb++ ISE KNO3 25°C 0.10M C 1977BLc (3325) 86
Kso(PbCO3)=-12.51
Method: Pb ion selective electrode.

Pb++ vlt KNO3 25°C 0.10M U K1=6.4 B2=9.8 1976BHa (3326) 87
By differential pulse polarography, K1=6.1, B2=9.1

Pb++ vlt KNO3 25°C 0.10M U K1=6.2 1975EAa (3327) 88

Pb++ sol none 25°C 0.0 U T K1=7.0 B2=9.0 1969BAc (3328) 89
At 200 C: K1=10.9, B2=12.3

Pb++ vlt KNO3 ? 1.80M U B2=7.9 1969FFa (3329) 90
B3=9.1
K(Pb+2HL)=5.6
K(Pb+4HL)=5.3

Pb++ oth none 50°C 0.0 U T 1969HEa (3330) 91
Kso=-13.19
Method: Estimated data. Temp. range 50-300 C,(cerrusite). Kso=-13.16(60C); -13.21(100 C); -13.54(150 C); -14.30(200 C); -15.31(250 C); -16.50(300 C)

Pb++ sol NaClO4 300°C 0.0 U TI K1=12.21 1968BAb (3331) 92
Medium: 0 corr. K1=11.89(250 C). In 1 M NaClO4, 25 C: B2=9.09

Pb++ vlt NaNO3 18°C 1.0M U 1967BAf (3332) 93
K(Pb+3HL)=5.19
K(Pb(HL)2+HL)=0.42

Pb++ vlt oth/un 20°C var U 1965BBc (3333) 94
K(Pb+2HL)=4.77
K(Pb+3HL)=5.19

Pb++ gl none 25°C 0.0 U M 1963NMd (3334) 95
K(Pb+Cl+0.5CO2(g))=0.90
Kso(PbClL0.5)=-9.97
I=0 corr. K: Pb+Cl+0.5CO2(g)=PbCl(CO3)0.5(s)+H. K(PbClL0.5(s)+0.5CO2(g)+0.5 H2O=PbL(s)+H+Cl)=-5.82

Pb++ gl none 25°C 0.0 U M 1962NMf (3335) 96
Kp=-3.91
Kp'=-5.78
I=0 corr. Kp: PbCl2(s)+0.5CO2(g)+0.5H2O=PbClL0.5(s)+H+Cl. Kp': PbClL0.5(s)+ 0.5CO2(g)+0.5H2O=PbL(s)+H+Cl

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Pb++ gl none 25?°C 0.0 U M 1962NMg (3336) 97
Kp=-5.85
I=0 corr. Kp: PbCl(CO3)0.5(s)+0.5CO2(g)+0.5H2O=PbCO3(s)+H+Cl

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--------------------------------------------------------------------------------
Pb++       sol KNO3   25°C 0.25M U  I                    1961NMc  (3337)  98
                                        Ks(PbCO3(s)+2H=Pb+H2CO3)=4.08
Ks=5.06(I=2), 4.58(I=1), 3.55(I=0 corr.). Kso=-13.13(I=0 corr.)
--------------------------------------------------------------------------------
Pb++       vlt KNO3   18°C 1.70M U        B2=8.2          1959FBa  (3338)  99
--------------------------------------------------------------------------------
Pb++       con none   25°C  0.0  U T                     1959UGa  (3339) 100
                                        Kso(PbCO3(s))=-13.24
I=0 corr. K=-13.10(30 C)
--------------------------------------------------------------------------------
Pb++       sol oth/un 18°C  dil  U                      1935KAa  (3340) 101
                                        Kso(PbCO3(s))=-11.87
From thermo. data, 25 C: Kso=-13.14, K(PbCO3(s)+CO2(g)+H2O=Pb+2HCO3)=-10.65
--------------------------------------------------------------------------------
Pb++       sol none   25°C  0.0  U                      1928RSa  (3341) 102
                                        Ks=-5.10
I=0 corr. Ks: Pb3(CO3)2(OH)2(s)+7OH=3Pb(OH)3+2CO3
--------------------------------------------------------------------------------
Pb++       sol oth/un 18°C  var  U                      1913APa  (3342) 103
                                        Kso(PbCO3(s))=-13.0
                                        Ks=-45.46
Ks: Pb3(OH)2L2(s)=3Pb+2OH+2L
--------------------------------------------------------------------------------
Pb++       sol oth/un 18°C    ?  U                      1907PLa  (3343) 104
                                        Kso(PbCO3(s))=-13.48
********************************************************************************
C2N3-                  HL    Dicyanamide      CAS 504-66-5  (2917)
Dicyanamide; (NC.N.CN)-
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       ISE non-aq 25°C 100%  U        K1=2.0    B2=3.7    1982SSc  (3472) 105
                                        B3=5.9
                                        B4=8.5
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
--------------------------------------------------------------------------------
Pb++       ISE non-aq 25°C 100%  U        K1=1.8    B2=3.4    1982SSc  (3479) 106
                                        B3=5.7
                                        B4=8.1
Medium: dimethylacetamide
********************************************************************************
C6N6Fe----            H4L                      (2191)
Hexacyanoferrate (II); Fe(II)(CN)6----
--------------------------------------------------------------------------------
```

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       ISE KNO3   25°C 0.10M C                         1977BLc  (3596) 107
                                     Kso(Pb2Fe(CN)6)=-15.6
Method: Pb ion selective electrode.
-------------------------------------------------------------------------
Pb++       con oth/un   ?        U                         1970BEa  (3597) 108
                                     Kso=-15.5
-------------------------------------------------------------------------
Pb++       sol oth/un 35°C       U                         1969YPa  (3598) 109
                                     Ks(Pb(OH)4L=Pb(OH)4+L)=-24.5
-------------------------------------------------------------------------
Pb++       ISE oth/un 25°C  0.0  U                         1964RPa  (3599) 110
                                     Kso(Pb2L)=-18.02
Method:amalgam electrode. Medium:0 corr
-------------------------------------------------------------------------
Pb++       sol oth/un 25°C  var  U                         1956TGb  (3600) 111
                                     Kso=-14.46
-------------------------------------------------------------------------
Pb++       con none   20°C  0.0  U                         1934RIa  (3601) 112
                                     Kso=-16.9
*************************************************************************
Cl-                    HL    Chloride         CAS 7647-01-0  (50)
Chloride;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       sp  NaCl   25°C  0.0  C  I                      2000FOa  (5325) 113
                                     B4=0.14
                                     Kso(Na3Pb2(SO4)3Cl)=-19.4
Data for0.2-5.0 m Cl-.
-------------------------------------------------------------------------
Pb++       vlt oth/un 25°C  4.0M U        K1= 1.28  B2=2.03   1992ZBa  (5326) 114
                                     B3=2.40
                                     B4=1.57
Medium: LiClO4-LiCl mixtures. By Square-wave Voltammetry (SWV) performed at
a frequency of 100 s-1 at pH=2
-------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 1.00M U        K1=0.93   B2=1.08   1990HEa  (5327) 115
                                     B3=1.72
Method: lead amalgam electrode.
-------------------------------------------------------------------------
Pb++       vlt NaClO4 20°C 0.10M C        K1=1.19        1989HSa  (5328) 116
Method: anodic amalgam voltammetry
-------------------------------------------------------------------------
Pb++       EMF NaClO4 25°C 5.00M U  I     K1=1.24   B2=1.96   1988FSb  (5329) 117
                                     B3=2.22
                                     B4=2.13
Molal equilibrium constants: K1=1.15; B2=1.78; B3=1.95; B4=1.77
-------------------------------------------------------------------------
```

```
Pb++       vlt NaClO4 25°C  4.0M C        K1=0.95   B2= 1.96  1988PBb  (5330) 118
                                         B3=1.99
                                         B4=1.43
Method: polarography. Medium pH 2.0
-------------------------------------------------------------------------------
Pb++       vlt oth/un 25°C  56%  U  I     K1=4.77   B2=8.77   1987BMa  (5331) 119
                                         K3=3.60
Medium: 56% HF. In 47% HF:K1=3.57, K2=3.70, K3=4.00; 26% HF:K1=2.0, K2=2.15
K3=2.0; 5% HF: K1=1.06, K2=1.08, K3=2.0
-------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C    0  U  I     K1=1.32   B2=2.09   1987KSd  (5332) 120
                                         B3=2.34
-------------------------------------------------------------------------------
Pb++       oth NaCl   25°C 1.0mM U        K1=1.00   B2=1.09   1985BMc  (5333) 121
                                         B3=0.82
Calculated from data by T M Seward: Geochim.Cosmo.Acta,48,121.
-------------------------------------------------------------------------------
Pb++       sp  none   25°C    0  U  I     K1=1.327  B2=1.759  1984BMb  (5334) 122
                                         B3=1.723
Values derived from data in HCl-HClO4 media, 0.01-1.0 M.
-------------------------------------------------------------------------------
Pb++       sol NaClO4 25°C  0.0  C        K1=1.61   B2= 1.67  1984LSc  (5335) 123
                                         B3=2.62
                                         Kso(PbCl2)=-4.771
Medium: 0-1.0 M HCl/HClO4.
-------------------------------------------------------------------------------
Pb++       sp  NaCl   25°C  var  U TIH    K1=1.41   B2=1.97   1984SEa  (5336) 124
                                         B3=1.66
                                         B4=1.46
I=0.0012 to 3.223 M Cl-. 25-300 C. Constants at I=0.
DH(K1)=2.5 kJ mol-1; DH(K2)=12.3; DH(K3)=-17.5
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C  1.0M C  I     K1=0.86   B2= 1.24  1983BPa  (5337) 125
                                         B3=0.97
Method: polarography. Also data for 10-50% MeOH/H2O, 10-20% PrOH/H2O,
10-30% i-PrOH/H2O.
-------------------------------------------------------------------------------
Pb++       sp  oth/un 25°C 1.00M U        K1=0.98   B2=1.30   1982BMc  (5338) 126
                                         B3=1.17
Medium: NaCl-NaClO4 mixtures.  By potentiometry: K1=0.85, B2=1.24, B3=1.09.
-------------------------------------------------------------------------------
Pb++       sp  oth/un 25°C 1.00M U    M                   1982BYa  (5339) 127
                                         B(PbClBr)=1.90
                                         B(PbClBr2)=2.34
                                         B(PbCl2Br)=1.85
Medium: mixed HCl-HBr-HClO4 solutions.
-------------------------------------------------------------------------------
Pb++       ISE non-aq 315°C 100%  U T H    K1=1.9    B2=3.40   1982GGa  (5340) 128
Medium: molten KNO3-Ba(NO3)2 (87.6:12.4 mol%), Data also at 335, 355 C
-------------------------------------------------------------------------------
```

```
Pb++       oth NaCl   23°C 0.70M U        K1=0.999  B2=1.037  1982ROa  (5341) 129
                                          B3=1.250
-------------------------------------------------------------------------------
Pb++       ISE non-aq 25°C 100%  U        K1=5.4    B2=9.5    1982SSc  (5342) 130
                                          B3=13.2
                                          B4=15.3
Medium: dimethylacetamide
-------------------------------------------------------------------------------
Pb++       sp  oth/un 25°C 1.00M U  I     K1=0.91   B2=1.21   1981BWa  (5343) 131
                                          B3=1.16
Medium: mixed HCl-HClO4 solutions. In 0.33 M MgCl2 + 0.01 M HCl, K1=0.84,
B2=1.06, B3=0.92.
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 20°C 2.22M U        K1=1.09   B2=1.02   1981TCa  (5344) 132
                                          B3=1.59
Using convolution voltammetry
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C 1.00M U        K1=0.83   B2=1.19   1980LBb  (5345) 133
                                          B3=0.86
Alternative methods: Neopolarography and Anodic stripping voltametry.
-------------------------------------------------------------------------------
Pb++       EMF oth/un 25°C  0.0  C TIH    K1=1.59        1980PPc  (5346) 134
Method: Ag/AgCl,Cl- electrode. Extrapolated from data for 0.014-03 M
(PbCl2+HCl). Data for 5-40 C. DH(K1)=8.79 kJ mol-1, DS(K1)=-59.9
-------------------------------------------------------------------------------
Pb++       oth oth/un 25°C 0.70M C        K1=1.01   B2= 1.50  1980SRa  (5347) 135
Recalculation of literature data with allowance for alkali and alkaline
earth ion pairs. Medium: synthetic seawater, 0.70 M NaCl/NaClO4.
-------------------------------------------------------------------------------
Pb++       vlt KNO3   25°C 0.10M U        K1=1.4         1979BKa  (5348) 136
-------------------------------------------------------------------------------
Pb++       ISE oth/un 65°C  var  U TI     K1=1.86   B2=3.42   1979ZMa  (5349) 137
Medium: Ca(NO3)2.aNH4NO3.xH2O. Data quoted applies when a= 1.5 and x= 8.96.
Further data available for 50 to 65 C and for various a and x values
-------------------------------------------------------------------------------
Pb++       ISE diox/w 25°C  50%  U  I     K1=1.23   B2=1.86   1978FDb  (5350) 138
                                          B3=2.04
-------------------------------------------------------------------------------
Pb++       ISE KNO3   25°C 0.10M C        K1=0.82        1977BLc  (5351) 139
                                          Kso(PbCl2)=-3.58
Method: Pb and Ag/AgCl ion selective electrodes.
-------------------------------------------------------------------------------
Pb++       ISE diox/w 25°C  30%  U  I     K1=1.48   B2=1.56   1976DFa  (5352) 140
                                          B3=2.30
Pb(Hg)-electrode; Medium: 30% w/w dioxan/H2O, LiClO4
-------------------------------------------------------------------------------
Pb++       sol NaClO4 25°C 1.00M U  I     K1=1.00        1976FSa  (5353) 141
-------------------------------------------------------------------------------
Pb++       ISE oth/un 25°C 3.00M U  I     K1=1.28   B2=1.87   1975FGa  (5354) 142
                                          B3=2.01
```

B4=1.89

Data also for MeOH/H2O

Pb++ sol none 25°C 0.0 U 1974DZc (5355) 143
Ks(PbLOH(s)=Pb+L+OH)=-13.27

Pb++ vlt NaClO4 25°C 2.0M U K1=0.81 B2=1.10 1974MId (5356) 144
B3=1.22

Pb++ ISE NaClO4 25°C 1.0M U K1=0.94 B2=1.08 1973BHb (5357) 145
B3=1.72

Pb++ kin NaClO4 25°C 0.10M U I K1=1.23 1973HHb (5358) 146
K1=1.08(I=1)

Pb++ ISE non-aq 25°C 100% U K1=4.11 B2=8.5 1973SLb (5359) 147
B3=10.0
B4=11.30
Medium: DMSO, 1 M LiClO4. Using least squares: B3=9.88, B4=11.36. Pb amalgam electrode

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Pb++ sp NaClO4 25°C 4.0M U I 1973VIa (5360) 148
K1=1.277+0.002C
B2=1.574+0.001C
B3=2.286-0.036C
B4=1.433+0.096C
Kso=-3.329+0.079C; C=total concentration of chloride. PbHg electrode also

---

Pb++ EMF NaClO4 25°C 2.0M U I K1=1.04 B2=1.40 1972FSd (5361) 149
B3=1.40
B4=0.85
Medium: LiClO4. K1=1.48,B2=2.08,B3=1.81,B4=0.9(I=0); K1=0.90,B2=1.30(I=0.5); K1=1.34,B2=2.10,B3=2.40,B4=1.90(I=4)

Pb++ ISE NaClO4 25°C 0.10M U K1=1.11 B2=1.56 1972FSe (5362) 150
Medium: LiClO4. Method: Pb amalgam electrode

Pb++ ISE NaClO4 25°C 1.0M U I M 1972FSe (5363) 151
B(PbBrL)=1.89
B(PbBrL2)=1.77
B(PbBr2Cl)=2.11
B(PbBr3L)=2.00
Medium: LiClO4, PbHg electrode. Many related interhalogen equilibria at I=0 to I=4

Pb++ EMF oth/un 25°C 1.00M U K1=0.85 B2=1.26 1972FSf (5364) 152
B3=1.20
Medium: LiCl-LiClO4 mixtures.

Pb++ EMF R4N.X 40°C ? U TI K1=1.86 B2=3.49 1972NGa (5365) 153

Medium: NH4NO3(H2O)2. K1=1.86,K2=1.58(55 C); K1=1.85,K2=1.53(70 C)
Data also at different solvation numbers(0 to 3). DH(K1)=-10.5 kJ mol-1(n=0)

Pb++ ISE none 25°C 0.0 U K1=1.5 B2=1.9 1972SFa (5366) 154
B3=2.7

Pb++ vlt NaClO4 25°C 1.0M U K1=1.18 B2=1.18 1971BHb (5367) 155
B3=1.90

Pb++ ISE NaClO4 25°C 4.0M U K1=1.19 B2=1.86 1971VIa (5368) 156
B3=2.03
B4=1.82

Method: Pb amalgam electrode. Using spect.: K1=1.13,B2=1.90,B3=2.08,B4=1.85

Pb++ sol NaClO4 25°C 3.0M U K1=1.20 1970FSb (5369) 157

Medium: LiClO4

Pb++ ISE non-aq 250°C 100% U K1=2.60 B2=4.68 1969GSe (5370) 158
K3=1.48
K4=1.15

Medium: molten (Na,K)NO3

Pb++ oth none 50°C 0.0 U T K1=1.63 B2=1.85 1969HEa (5371) 159
B3=1.81
B4=1.59

Evaluated from literature data. At 100 C: K1=1.73,B2=2.04,B3=2.13,B4=2.05;
At 150 C: K1=1.88,B2=2.29,B3=2.50,B4=2.57

Pb++ vlt non-aq 145°C 100% U K1=1.32 B2=2.36 1968ILa (5372) 160

Medium: (Li/Na/K)NO3 eutectic. m units

Pb++ oth oth/un 23°C var U K2=0 1968SCc (5373) 161
K3=0

Method:electrical migration or transference number. Medium:LiCl var

---

Pb++ sol oth/un 35°C dil U 1968YPa (5374) 162
Ks(PbOHCl)=-6.12

Pb++ ISE NaClO4 25°C 4.0M U I K1=1.24 B2=1.73 1966VSa (5375) 163
B3=2.14
B4=1.39

Method:amalgam electrode. At I=3:K1=1.05, B2=1.51, B3=1.83

Pb++ vlt NaClO4 25°C 1.0M U 1965HPa (5376) 164
B4/B2=0.15?

Pb++ sp NaClO4 25°C 4.0M U K1=1.0 B2=2.47 1965HPa (5377) 165
K(PbCl2(s)=PbCl2)=-3.33
K3 < -0.4
B4/B2=0.15

B6/B4=-1.7
Also solubility. Medium: HClO4

Pb++ ISE NaClO4 25°C 3.0M U I M K1=1.18 B2=1.72 1965MKb (5378) 166
B3=2.00
B4=1.04
Method:amalgam electrode. In With 3 M LiCl:K(Na+PbCl4)=-0.14, 0.31(K+), 0.42(Rb+),0.50(Cs+); K(Na+PbCl3)=-1.0,-0.3(K+),-0.2(Rb+),-0.1(Cs+)

Pb++ ISE NaClO4 25°C 3.0M U M K1=1.19 B2=1.73 1965MKc (5379) 167
B3=2.03
B4=0.85
K(Na+PbCl4)=-0.85
yethod:amalgam electrode. Medium:3 LiClO4,1 HClO4. K(K+PbL4)=-0.64, 0.0(Cs+), -0.05(NH4+), 0.85(H+PbCl4)

Pb++ ISE oth/un 25°C 0.0 U 1964APb (5380) 168
Kso(PbCl2)=-4.8

Pb++ ISE non-aq 200°C 100% U T K1=2.31 B2=4.26 1964BMa (5381) 169
Medium: (Li/K)NO3. K1=2.40(160 C),2.36(180 C); K2=2.04(160 C),1.97(180 C)

Pb++ ISE oth/un 25°C 2.50M U 1964BMc (5382) 170
B3=2.81
Method:amalgam electrode. Medium:Ca(ClO4)2

Pb++ ISE NaClO4 25°C 3.0M U M 1964MKb (5383) 171
K'-0.33
K"=-1.05 or -0.7 ?
Method:amalgam electrode. K': Li2PbL4+Na=LiNaPbL4+Li. K": Li2PbL4+2Na
---
Pb++ ISE NaClO4 25°C 3.0M U H K1=1.16 B2=1.81 1964MKd (5384) 172
B3=1.91
B4=1.2
Method: Pb/Hg electrode. DH(K1)=3.6 kJ mol-1,DH(B2)=7.9,DH(B3)=10.9,DH(B4)=0
DS(K1)=34.3 J K-1 mol-1,DS(B2)=62.7,DS(B3)=75.2,DS(B4)=66.9

Pb++ sol NaClO4 25°C 3.0M U K1=1.23 B2=1.87 1964MKf (5385) 173
B3=1.98
B4=1.72
K(Na+PbCl4)=-0.28
Medium: LiClO4. By amalgam electrode:Kso=-5.0

Pb++ vlt non-aq 280°C 100% U K1=1.32 B2=0.48 1963DGd (5386) 174
Medium: liquid (K/Na)NO3. m units. By Pb electrode K1=1.32, B2=0.78

Pb++ dis non-aq 480°C 100% U K1=0.41 B2=1.7 1963KEb (5387) 175
Medium: liquid KNO3. Kd(PbCl2(in KNO3)=PbCl2(in AgCl))=0.14. m units
---
Pb++ ISE NaNO3 25°C 3.0M U I K1=0.31 B2=0.34 1963MFa (5388) 176

B3=-0.2
Method:amalgam electrode. In 3 M LiNO3: K1=0.32, B2=0.10, B3=-0.28
In 3 M KNO3:K1=0.46, B2=0.58, B3=-0.1,B4=0 plus other backgrounds
---
Pb++ ISE oth/un 25°C 3.0M U 1963MFe (5389) 177
K(NH4+PbCl4)=0.48
K(2NH4+PbCl4)=-0.33

Pb++ ISE NaClO4 25°C 4.0M U 1963MId (5390) 178
K(Na+PbCl4)=-0.05
K(K+PbCl4)=0.45
K(Rb+PbCl4)=0.57
K(Cs+PbCl4)=0.66

Pb++ ISE NaClO4 25°C 3.0M U I K1=1.16 B2=1.7 1963MKc (5391) 179
B3=1.97
B4=0.7
Method:amalgam electrode. When I=1:K1=0.90, B2=1.36, B3=1.45
also data for I=4,2,0.75,0.5,0.25 and NaNO3: K1=0.43,B3=0.5,B3=-0.3 at I=4

Pb++ sol non-aq 250°C 100% U T K1=1.21 1963RSc (5392) 180
Medium: liquid (Na/K)NO3. K1=1.21(275 C), 1.12(300 C). m units.

Pb++ ISE none 25°C 0.0 U K1=1.62 B2=2.44 1962APa (5393) 181

Pb++ oth KNO3 -3°C sat U K1=1.05 1962FCa (5394) 182
Method: freezing point

Pb++ sol non-aq 275°C 100% U T K1=1.20 1962SIc (5395) 183
Medium: liquid (Na/K)NO3. K1=1.04(300 C), 0.85(325 C). m units
---
Pb++ sol non-aq 275°C 100% U K1=1.04 B2=1.64 1962VOa (5396) 184
K3=0.7
Ks(PbCrO4(s)=Pb+CrO4)=-6.79
Medium: liquid (Na/K)NO3. m units

Pb++ ISE NaClO4 25°C 4.0M U I K1=1.23 B2=1.76 1961MIb (5397) 185
B3=2.15
B4=1.58
B5=1.3
Method: Pb/Hg electrode. In LiClO4: K1=1.23, B2=1.72, B3=2.08, B4=1.34,
B5=0.6. CsClO4: 1.30, 1.88, 2.43, 2.30, 1.7, B6=2.0. Plus other media
---
Pb++ vlt non-aq 180°C 100% U K1=1.62 B2=2.10 1960COd (5398) 186
Medium: liquid (Li/K)NO3

Pb++ vlt non-aq 180°C 100% U K1=2.43 1960COd (5399) 187
Medium: liquid (Li/K)NO3, x units.

Pb++ ISE oth/un 25°C 5.0M U 1960FSb (5400) 188

B3=1.95

Pb++ vlt non-aq ? 100% U K1=1.6 B2=2.87 1960HSa (5401) 189
Medium: HCONH2, 0.64 M NaClO4 ?

Pb++ sol non-aq 275°C 100% U T K1=1.5 B2=2.45 1959DLa (5402) 190
K3=0.7
Medium: LiClO4(liquid). K1=1.7(300 C), K2=1.0(300 C), K3=0.7(300 C)

Pb++ vlt oth/un 25°C 2.0M U I K1=1.46 B2=1.20 1959TCa (5403) 191
K3=-0.31
B3=0.89
Medium: LiNO3. Also MeOH/H2O and EtOH/H2O mixtures. In MeOH K1=2.80, K2=0.86

Pb++ sol non-aq 250°C 100% U T K1=1.26 B2=1.56 1958DIc (5404) 192
K3=0.3
Medium:(Na/K)NO3(liquid). K1=0.90(275 C),0.78(300 C); K2=0.48(275 C,300 C);
K3=0(275 C,300 C).

Pb++ ix NaClO4 0°C 1.0M U K1=1.81 1958ZKa (5405) 193

Pb++ ix NaClO4 20°C 1.0M U K1=0.81 1957KAa (5406) 194
By quinhydrone electrode K1=0.66, K2=0.42

Pb++ vlt NaClO4 25°C 2.0M U K1=1.18 B2=1.15 1957KLa (5407) 195
K3=0.34

Pb++ vlt oth/un ? 2.0M U K1=1.16 B2=1.26 1957KRa (5408) 196
K3=0.19

Pb++ vlt none 25°C 0.0 U 1957PCb (5409) 197
Kso(PbL2(s))=-4.76

Pb++ oth non-aq 307°C 100% U K1=1.78 B2=1.48 1956ARc (5410) 198
B4=0.8
Method: freezing point. Medium: liquid NaNO3

Pb++ gl none 17°C 0.0 U 1956CHa (5411) 199
Kso(PbClOH(s))=-13.7
Kso(PbCl0.5(OH)1.5(s))=-16.6

Pb++ sp none 25°C 0.0 U K1=1.57 1955BPa (5412) 200

Pb++ sp none 18°C 0.0 U I K1=1.59 1955BPc (5413) 201
I=0 corr. K1=2.74 in 40 mol% MeOH.

Pb++ vlt NaClO4 25°C 1.0M U K1=0.96 B2=0.87 1955KIa (5414) 202
K3=0.50

Pb++ con none 25°C 0.0 U H K1=1.59 1955NAa (5415) 203

```
I=0 corr. DH(K1)=18.3 kJ mol-1, DS=92 J K-1 mol-1
-------------------------------------------------------------------------
Pb++       vlt oth/un 25°C  1.0M U  I     K1=1.43   B2=2.26   1955PCa  (5416) 204
                                          K3=-0.18
                                          K4=0.07
                                          B6=2.10
At I=0 corr.: K1=1.10, K2=1.16, K3=-0.40, K4=-1.05
In 1 M KCl: K1=0.88, K2=0.61, K3=-0.40, K4=-0.15, B6=0.46
-------------------------------------------------------------------------
Pb++       ix  none   25°C  0.0  U        K1=1.60   B2=1.78   1954NKa  (5417) 205
                                          K3=-0.1
                                          K4=-0.3
-------------------------------------------------------------------------
Pb++       sol none    0°C  0.0  U                  1951DCa  (5418) 206
                                          Kso(PbCl(OH))=-13.7
                                          Kso(PbCl0.5(OH)1.5)=-17
-------------------------------------------------------------------------
Pb++       vlt oth/un 25°C  var  U        K1=1.64   B2=1.28   1951VPa  (5419) 207
                                          K3=0.57
-------------------------------------------------------------------------
Pb++       sol oth/un 18°C  var  U        K1=1.05        1950CAa  (5420) 208
-------------------------------------------------------------------------
Pb++       vlt oth/un 25°C  var  U                  1950KKb  (5421) 209
                                          B3=1.70
                                          K4=-0.10
-------------------------------------------------------------------------
Pb++       oth none   25°C  0.0  U        K1=1.54        1949GGa  (5422) 210
-------------------------------------------------------------------------
Pb++       sol none   25°C  0.0  U  I     K1=1.64        1949JAc  (5423) 211
-------------------------------------------------------------------------
Pb++       oth none   25°C  0.0  U        K1=1.58        1947NGa  (5424) 212
-------------------------------------------------------------------------
Pb++       sol none   25°C  0.0  U        K1=1.75        1945NAa  (5425) 213
-------------------------------------------------------------------------
Pb++       ISE none   25°C  0.0  U                  1944NGa  (5426) 214
                                          Kso(PbL2)=-4.79
-------------------------------------------------------------------------
Pb++       sol none   25°C  0.0  U                  1942GNa  (5427) 215
                                          B3=1.4
-------------------------------------------------------------------------
Pb++       ISE none   25°C  0.0  U        K1=1.42        1938GUa  (5428) 216
-------------------------------------------------------------------------
Pb++       sp  none   22°C  0.0  U        K1=1.11        1931FLa  (5429) 217
I=0 corr. By Pb electrode Kso(PgL2(s))=-4.67
-------------------------------------------------------------------------
Pb++       oth none   18°C  0.0  U        K1=1.52        1930RDa  (5430) 218
-------------------------------------------------------------------------
Pb++       sol oth/un 18°C  var  U        K1=1.5    B2=2.1    1910BSa  (5431) 219
-------------------------------------------------------------------------
Pb++       sol oth/un 25°C  var  U        K1=1.20        1901ENa  (5432) 220
```

B3=1.38
B4=1.1

****

ClO3- HL Chlorate CAS 7790-93-4 (971)
Chlorate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	kin	NaClO4	25°C	1.0M	U		K1=0.23	1973HHb (6055)	221
Pb++	vlt	NaClO4	25°C	1.0M	U		K1=-0.32 B2=-0.64	1956KEa (6056)	222

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	non-aq	22°C	100%	U		B3=8.3	1988BEb (6352)	223

Medium: CH2Cl2

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	KNO3	25°C	0.10M	C		Kso(PbCrO4)=-12.35	1977BLc (6502)	224

Method: Pb ion selective electrode.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	kin	non-aq	300°C	100%	U		K(Pb+Cr2O7)=1.65	1958DIb (6503)	225

Medium: (Na,K)NO3(liquid,eutectic); in m units

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	kin	oth/un	300°C	100%	U		K(Pb+Cr2O7)=1.65	1958DIb (6504)	226

Medium: (Na,K)NO3(liquid,eutectic);in m units

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	none	17°C	0.0	U		Ks(Pb(L)0.5(OH))=-15.87	1956CHa (6505)	227
Pb++	sol	oth/un	25°C	dil	U		Kso=-12.55	1942KPa (6506)	228
Pb++	sol	oth/un	18°C	var	U		Kso=-13.75	1911BEa (6507)	229

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	ISE	none	25°C	0.0	C			1993DPd	(7081)	230
							Kso(PbF2)=-6.95			
Method: double membrane F ion selective electrode.										
Pb++	ISE	NaClO4	25°C	1.00M	U		K1=1.46	B2=2.52	1990HEa	(7082) 231
Method: lead amalgam electrode										
Pb++	ISE	NaClO4	25°C	1.0M	C		K1=1.38	B2= 2.56	1989LWe	(7083) 232
Method: F ion-selective electrode.										
Pb++	vlt	mixed	25°C	60%	U		K1=9.3	B2=15.10	1987BMa	(7084) 233
							Medium: 60% w/w HF/H2O			
Medium: 60% w/w HF/H2O										
Pb++	ISE	NaClO4	25°C	0.10M	U		K1=1.45	B2=2.84	1986SZa	(7085) 234
Pb++	ISE	KNO3	25°C	1.00M	C	I	K1=1.13		1984HCa	(7086) 235
Also in 1.0 M NaNO3, K1=1.10										
Pb++	ISE	KNO3	25°C	0.10M	C		K1=1.6		1977BLc	(7087) 236
							Kso(PbF2)=-6.49			
Method: Pb and F ion selective electrodes.										
Pb++	ISE	NaClO4	25°C	1.0M	U		K1=1.46	B2=2.52	1973BHb	(7088) 237
Pb++	ISE	NaClO4	25°C	1.0M	U		K1=1.40		1972HEa	(7089) 238
Pb++	ISE	NaClO4	25°C	1.0M	U	M			1972HEa	(7090) 239
							B(PbClL)=2.8			
							B(PbBrL)=2.9			
Method: fluoride-ISE and Pb amalgam electrode										
Pb++	vlt	NaClO4	25°C	1.0M	U	M	K1=1.40	B2=2.54	1971BOa	(7091) 240
							B(PbFCl)=2.72			
Pb++	vlt	NaClO4	15°C	1.0M	U	I	K1=1.53	B2=2.59	1970BHb	(7092) 241
Using fluoride ISE: K1=1.62(I=1). In 0.1 M NaClO4: K1=1.73										
Pb++	cal	oth/un	25°C	1.0M	U	HM			1970JOb	(7093) 242
DH(so(PbClL)=-36.6 kJ mol-1										
Pb++	sol	none	20°C	0.0	U				1969ANa	(7094) 243
							Kos(PbClL)=-8.82			
Pb++	vlt	KNO3	270°C	100%	U		K1=1.23	B2=2.63	1969BOc	(7095) 244
Pb++	ISE	NaClO4	25°C	1.0M	U		K1=1.48		1965BCc	(7096) 245
Method: amalgam and quinhydrone electrodes										

```
--------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C  2.0M U        K1=1.26   B2=2.55   1963MHb  (7097) 246
                                         Kso(PbF2)=-6.60
--------------------------------------------------------------------------------
Pb++       ISE KNO3   25°C  1.0M U                          1961SRa  (7098) 247
                                         Kso(PbF2)=-6.26
--------------------------------------------------------------------------------
Pb++       sol none   25°C  0.0  U    M                    1961TPa  (7099) 248
                                         Kso(PbFI(s))=-8.07
--------------------------------------------------------------------------------
Pb++       sol none   25°C  0.0  U T                       1961TPb  (7100) 249
                                         Kso(PbFCl(s))=-8.62
Kso=-9.17(0 C), -7.99(50 C), -7.62(75 C), -7.24(100 C)
--------------------------------------------------------------------------------
Pb++       sol none   25°C  0.0  U    M                    1961TPc  (7101) 250
                                         K(PbBrF(s)=PbBr+F)=-5.65
--------------------------------------------------------------------------------
Pb++       con NaClO4 25°C 0.50M U  I     K1=<0.3          1958CPa  (7102) 251
                                         K(Pb+HF=PbF+H) < -2.7
At I=0 corr. K1 < 0.78
--------------------------------------------------------------------------------
Pb++       vlt none   25°C  0.0  U        B2=2.27          1956TKa  (7103) 252
                                         B3=3.42
                                         B4=3.1
--------------------------------------------------------------------------------
Pb++       EMF NaClO4 25°C 0.50M U  I     K1=<0.3          1955PAa  (7104) 253
At I=0 corr K1 < 0.8
--------------------------------------------------------------------------------
Pb++       ISE none   25°C  0.0  U                        1941IVa  (7105) 254
                                         Kso(PbF2)=-7.57
--------------------------------------------------------------------------------
Pb++       con none   18°C  0.0  U T                       1923BOa  (7106) 255
                                         Kso(PbF2)=-7.49
Kso=-7.57(9 C), -7.43(26.6 C)
********************************************************************************
FClBrI                 HL                        (541)
Halides, comparative (for book data under ligand 80)
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       EMF NaClO4 25°C  5.0M U    M                    1960FSb  (7411) 256
                                         B(PbCl3Br)=2.46
                                         B(PbCl2Br2)=3.03
                                         B(PbClBr3)=3.20
                                         B(PbBr3I)=3.80
Method: Pb/Hg electrode. B(PbBr2I2)=4.48, B(PbBrI3)=5.15, B(PbCl3)=1.95,
B(PbBr4)=2.85, B(PbI4)=5.32
********************************************************************************
H2O                    L    Water            CAS 7732-18-5  (6115)
Water
```

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	vlt	non-aq	18°C	100%	U		K1=1.18 B3=1.70 B4=1.70 B5=1.11	B2=1.48	1962MGc (7608)	257

Medium: Me2CO

Pb++	vlt	alc/w	25°C	100%	U	I	K1=-0.08	B2=0.24	1961MGa (7609)	258

Medium: MeOH, 0.05 M NH4ClO4. K3=-0.34 (0.1 M NH4NClO4)

Pb++	vlt	alc/w	25°C	100%	U		K2=-1.42 K3=-1.64 K4=-1.66 K5=-1.70		1958VAa (7610)	259

Medium: EtOH, 0.1 M KNO3

****

I- HL Iodide CAS 10034-85-2 (20)

Iodide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	ISE	NaClO4	25°C	1.00M	U	T	K1=1.18 B3=3.16 B4=4.8	B2=2.30	1990HEa (8274)	260

Method: lead amalgam electrode.

Pb++	ISE	non-aq	295°C	100%	U	T	H	K1=3.57	B2=6.74	1982GGa (8275)	261

Medium: molten KNO3-Ba(NO3)2 (87.6:12.4 mol%). Data also at 315, 335 C

Pb++	dis	NaClO4	25°C	1.00M	U		K1=1.29 B3=3.0 B4=3.9	B2=1.8	1982KSa (8276)	262
Pb++	ISE	non-aq	25°C	100%	U		K1=3.7 B3=9.2	B2=6.5	1982SSc (8277)	263

Medium: dimethylacetamide

Pb++	sol	NaClO4	25°C	0.1M	U	H			1977HMc (8278)	264
							Ks=--24.60			
Pb++	sol	NaClO4	25°C	1.00M	U	I	K1=1.63 B(Pb2I)=1.70		1976FSa (8279)	265
Pb++	ISE	non-aq	25°C	100%	U		K1=2.62 B3=4.28	B2=3.95	1973SLb (8280)	266

Medium: DMSO, 1 M (Li,Na)ClO4

Pb++	sol	NaClO4	5°C	3.0M	U	H	K1=2.34	B2=3.74	1972FSc (8281)	267

B3=5.11
B4=5.44
B5=5.83
B6=5.90
Medium: LiClO4. B7=5.5,B8=6.0. DH(K1)=-49.4 kJ mol-1, DH(B2)=-53.6, DH(B3)=
-42.7, DH(B4)=-49.4. Data at 15, 25 and 35 C. 35 C:K1=1.52,B2=2.80,B3=4.32

Pb++ sol NaClO4 25°C 3.0M U T 1972FSc (8282) 268
Kso(PbI2(s))=-8.50
Medium: LiClO4; Kso=-9.33(5 C), -8.95(15 C), -8.25(35 C)

Pb++ EMF NaClO4 25°C 0.50M U I K1=1.34 B2=2.34 1972FSd (8283) 269
B3=3.15
B4=3.20
B5=4.04
Medium: LiClO4. K1=1.50, B2=2.48, B3=3.18, B4=3.88, B5=4.48(I=1); K1=1.58,
B2=3.00,B3=3.85,B4=4.34,B5=4.64(I=2). Also I=3, I=4

Pb++ EMF oth/un 25°C 3.0M U I K1=1.65 B2=3.00 1972FSd (8284) 270
B3=4.43
B4=5.08
B5=5.2
Medium: LiClO4. K1=1.90, B2=3.78, B3=4.85, B4=5.30, B5=5.95(I=4); K1=1.98,
B2=3.15, B3=3.81, B4=3.75, B5=3.81(I=0 corr)

Pb++ ISE NaClO4 25°C 1.0M U I M 1972FSd (8285) 271
B(PbClL)=2.15
B(PbCl2L)=2.56
B(PbClL2)=3.28
B(PbCl3L)=2.12
Medium: LiClO4; PbHg electrode. Data for many other interhalogen complexes,
I=0 to I=4

Pb++ vlt NaClO4 25°C 1.0M U K1=4.0 B2=7.3 1971BHb (8286) 272

Pb++ sol NaClO4 25°C 3.0M U K1=1.69 1970FSb (8287) 273
B(Pb2I)=1.95
Medium: LiClO4

Pb++ EMF non-aq 25°C 100% U K1=2.70 B2=4.85 1970SZa (8288) 274
B3=7.0
B4=8.6
Medium: DMF, 1 M LiClO4

Pb++ vlt oth/un 25°C var U 1969FTa (8289) 275
Kso(PbI2(s))=-7.89
medium: NaI

Pb++ dis NaNO3 30°C 0.10M U K1=7.3 1965SMg (8290) 276
Kd(Ph3PbOH(CHCl3)+I)=-0.6

```
                                        Kd(Ph3PbOH(MIBK)+I)=-0.1
-------------------------------------------------------------------------------
Pb++       ISE alc/w  20°C 100%  U  I                    1961GGc  (8291) 277
                                        B5=8.47
                                        B6=8.20
                                        B7=7.89
Medium: MeOH, 3 M NaClO4. Method: Pb/Hg electrode(Pb). In Me2CO,1.3 M NaClO4
B3=15.77, B4=16.27, B5=16.51, B6= ca.17
-------------------------------------------------------------------------------
Pb++       EMF NaClO4 25°C  5.0M U                      1960FSb  (8292) 278
                                        B4=5.32
Method: Pb/Hg electrode
-------------------------------------------------------------------------------
Pb++       vlt non-aq   ?  100%  U                      1960HSd  (8293) 279
                                        B4=4.30
Medium: HCONH2, 1 M NaClO4 ?
-------------------------------------------------------------------------------
Pb++       sol NaClO4 25°C  2.0M U       K1=1.30   B2=2.38   1960HYa  (8294) 280
                                        B3=3.14
                                        B4=4.43
                                        Kso(PbL2)=-7.605
-------------------------------------------------------------------------------
Pb++       sol none   25°C  0.0  U T H                  1960NMa  (8295) 281
                                        K(PbL2(s)+OH=PbOHL+L)=7.23
I=0 corr. K=7.43(10 C), 7.09(40 C), 7.01(50 C), 6.88(60 C). DH(K)=-19.1 kJ
mol-1, DS=74.5 J K-1 mol-1; DH(Pb(OH)I(s)=Pb+OH+I)=84.0, DS=-12
-------------------------------------------------------------------------------
Pb++       sol oth/un 22°C  dil  U T                   1959DUa  (8296) 282
                                        Kso(PbL2)=-7.89
Kso=-8.01(18 C)
-------------------------------------------------------------------------------
Pb++       sol oth/un 25°C  var  U                     1959KBb  (8297) 283
                                        Kso(PbL2)=-8.97
                                        K(PbL2(s)+L=PbL3)=-3.3
                                        K(PbL2(s)+2L=PbL4)=-2.74
                                        B3=5.7
Medium KI. B4=6.23
-------------------------------------------------------------------------------
Pb++       sol oth/un 25°C  dil  U                     1959NMa  (8298) 284
                                        K(PbL2(s)+OH=PbLOH+L)=7.13
                                        K(Pb(OH)L(s)=Pb+OH+L)=-15.2
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C  1.0M U       K1=1.26   B2=2.80   1956KEa  (8299) 285
                                        K3=0.62
                                        K4=0.50
-------------------------------------------------------------------------------
Pb++       sp  none   25°C  0.0  U       K1=1.92        1955BPa  (8300) 286
-------------------------------------------------------------------------------
Pb++       sp  none   18°C  0.0  U  I    K1=1.92        1955PPa  (8301) 287
I=0 corr. Also in MeOH/H2O mixtures
```

Pb++ cal oth/un 25°C var U H 1954YSa (8302) 288
DH(K1)=-4.2 kJ mol-1. DS=29 J K-1 mol-1

Pb++ sol oth/un 25°C var U K1=2.30 1953YSa (8303) 289
B(Pb2L)=1.67
Medium Pb(NO3)2. From thermodynamic data, I=0 corr. Kso(PbL2)=-8.98

Pb++ cal oth/un ? var U H 1952YAa (8304) 290
DH(B4)=-65.3 kJ mol-1, DS=-96.2 J K-1 mol-1

Pb++ ISE oth/un 25°C var U T H 1949KOb (8305) 291
B4=6.20
Method: Pb electrode. Medium KI. B4=6.80(0 C), 5.64(30 C), 4.70(35 C).
DH(B4)=-250 kJ mol-1

Pb++ vlt oth/un 17°C var U 1946MSa (8306) 292
B4=7

Pb++ sol none 25°C 0.0 U H 1945NAb (8307) 293
I=0 corr. DH(so(PbL2))=59.0 kJ mol-1.

Pb++ EMF none 25°C 0.0 U T H 1945NAb (8308) 294
Kso(PbL2)=-8.15
Method: Ag electrode, I=0 corr. Kso=-9.02(0 C), -7.52(45 C), -7.09(60 C).
DH(so)=60.7 kJ mol-1

Pb++ sol none 25°C 0.0 U K1=2.1 1944NAa (8309) 295
Kso(PbL2)=-8.19

Pb++ sol none 25°C 0.0 U 1941LKa (8310) 296
K(PbL2(s)=PbL2)=-4.47
K(PbL2(s)+L=PbL3)=-4.65
K(PbL2(s)+2L=PbL4)=-3.85
K3=-0.18
I=0 corr. K4=0.80

Pb++ sol none 25°C 0.0 U K1=2.0 B2=3.15 1941LKa (8311) 297
B3=3.92
B4=4.47
Kso(PbL2)=-8.06

Pb++ sol oth/un 20°C var U 1940GOa (8312) 298
B3=5.44

Pb++ sp none 22°C 0.0 U K1=1.46 1931FLa (8313) 299
I=0 corr. At 25 C, by Pb electrode Kso(PbL2)=-8.01

Pb++ sol none 25°C 0.0 U T 1923BOa (8314) 300
Kso(PbL2)=-7.86

I=0 corr. Kso=-8.54(0 C), -8.13(15 C), -7.07(45 C), -6.58(65 C)

Pb++ sol oth/un 25°C dil U 1901ENa (8315) 301
Kso(PbL2)=-7.8

****

IO3- HL Iodate CAS 7782-68-5 (1257)
Iodate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	KNO3	25°C	0.10M	C		Kso(Pb(IO3)2)=-12.68	1977BLc (8543)	302

Method: Pb ion selective electrode.

Pb++	sol	oth/un	rt	dil	U		Kso(PbL2)=-12.49	1926GHa (8544)	303

Pb++	con	none	18°C	0.0	U	T	Kso(PbL2)=-12.92	1923BOa (8545)	304

I=0 corr. Kso=-13.28(9.2 C), -12.58(25.8 C)

Pb++	con	oth/un	20°C	dil	U		Kso(PbL2)=-12.86	1903BOb (8546)	305

****

MnO4- HL Permanganate CAS 13456-41-3 (5678)
Manganate(VII), Permanganate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	none	17°C	0.0	U		Ks(Pb(L)0.5(OH)1.5)=-18.9	1956CHa (8635)	306

****

MoO4-- H2L Molybdate (443)
Molybdate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	none	25°C	0.0	C		Kso(PbMoO4)=-12.92	1977CCa (8749)	307

Method: Pb ion selective electrode. Medium pH 6.0.
Data extrapolated to I=0.0 M.

Pb++	ISE	none	25°C	0.0	U		Kso=-12.80	1977VLa (8750)	308

Pb++	sol	oth/un	22°C	dil	U		Kso(PbL)=-9.72	1963CKa (8751)	309

Pb++	cal	none	25°C	0.0	U	H	Kso(PbL)=-13.0	1958MHa (8752)	310

DH(Kso)=49.8kJ mol-1, DS=-81.2 J K-1 mol-1. Also from thermodynamic data

****

NH3 L Ammonia CAS 7664-41-7 (414)

Ammonia

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	R4N.X	25°C	5.00M	U		K1=1.55		1985MMa	(9191) 311

****

NH3O L Hydroxylamine; CAS 5470-11-1 (1808)

Hydroxylamine; NH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	vlt	oth/un	25?°C	1.0M	U	I	K1=0.23	B2=0.13	1968STc	(9270) 312
							K3=0.60			

K1=0.78, K2=1.40 with I=1 M KCl or KNO3

****

NO2- HL Nitrite CAS 7782-77-6 (635)

Nitrite;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	sol	NaNO3	20°C	1.40M	U		K1=2.54	B2=3.17	1971GFb	(9393) 313
							B3=2.78			
Pb++	sp	NaClO4	25°C	1.0M	U	I	K1=1.86		1971TLa	(9394) 314

K1=1.87(I=0.7), 1.91(I=2.0), 2.51(I=0 corr)

Pb++	vlt	NaClO4	30°C	1.0M	U		K1=1.93	B2=2.36	1967JGa	(9395) 315
							B3=2.13			
Pb++	sol	oth/un	20°C	var	U				1966GAd	(9396) 316
							Ks(Pb(SCN)2(s)+L)=-0.7			
							Ks(PbCl2(s)+L)=-0.5			
							Ks(PbBr2(s)+L)=-0.8			
Pb++	ISE	alc/w	20°C	50%	U	I	K1=2.40	B2=3.57	1965GAc	(9397) 317
							B3=3.80			

Method: amalgam electrode. Medium:50% MeOH, 1.6 M LiClO4. 70%: B2=3.70, B3=4.12. 80%: K1=3.44, B2=4.05, B3=5.02. 100%:K1=3.6, B2=5.0, B3=5.5, B4=5.6

Pb++	ISE	NaClO4	25°C	3.80M	U	I	K1=2.13	B2=2.96	1964GAa	(9398) 318
							B3=3.15			

Method: amalgam electrode. B4=2.96(I>5). In EtOH: B3=4.68(50%), 5.11(80%)

Pb++	vlt	NaClO4	25°C	2.50M	U	I			1961TBa	(9399) 319
							B3=3.00			
							K3=0.32			

By spec., 18 C, I=0.7 M: K1=2.15

```
--------------------------------------------------------------------------------
Pb++       ISE NaClO4 30°C  2.0M U        K1=2.85        1959VKa  (9400) 320
********************************************************************************
NO3-                   HL    Nitrate          CAS 7697-37-2  (288)
Nitrate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       nmr oth/un 22°C  var  C T H    K1=0.70        2000AGa  (9834) 321
Self medium, 0.05-0.25 m Pb(NO3)2. Also data for 37-77 C.
DH(K1)=12.6 kJ mo-1, DS(K1)=49 J K-1 mol-1. Method: 207Pb nmr
--------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C 0.05M C  I     K1=0.43   B2= 0.32  1987RRb  (9835) 322
Method: polarography. Data for 0.3-5.0 M NaClO4. At I=5.0 M,
K1=0.28, B2=0.079, B3=0.11.
--------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C  1.0M C    M   K1=0.32   B2= 0.32  1985RRg  (9836) 323
                                        B(Cd(SCN)NO3)=0.90
Method: polarography.
--------------------------------------------------------------------------------
Pb++       nmr oth/un 25°C  var  C        K1=0.091       1983HHb  (9837) 324
Method: 207Pb nmr. K1 value valid for 0.01-1.0 M Pb(NO3)2 solution.
--------------------------------------------------------------------------------
Pb++       kin NaClO4 25°C 0.10M U  I     K1=0.90        1973HHb  (9838) 325
K1=0.62(I=1)
--------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C  3.0M U TI     K1=0.52   B2=0.45   1972FRa  (9839) 326
                                        B3=0.26
                                        B4=-0.3
Method:Pb/Hg electrode. Medium:LiClO4. K1=1.11,B2=1.40(I=0). K1=0.53,B2=0.43
(I=0.5). K1=0.40,B2=0.23,B3=-0.05(I=2). Temp. range: 2 to 65 C
--------------------------------------------------------------------------------
Pb++       vlt oth/un 25°C  3.0M U   H    K1=0.53   B2=0.48   1972FRa  (9840) 327
                                        B3=0.30
                                        B4=0.11
Medium:LiClO4. By spec.K1=0.57,B2=0.48.By sol.K1=0.46,B2=0.30,B3=0.2,B4=-0.5
Also DH, DS data
--------------------------------------------------------------------------------
Pb++       ISE alc/w  25°C 24.7M U TI     K1=1.49   B2=2.37   1971GFc  (9841) 328
                                        B3=2.62
                                        B4=2.70
                                        B5=2.42
                                        B6=2.15
Method: Pb/Hg. Medium: MeOH/H2O, C mols MeOH. When C=6: K1=0.72, B2=0.83,
B3=0.65,B4=0.18. Data also 5 C, 15 C, 35 C, 45 C and 55 C
--------------------------------------------------------------------------------
Pb++       ISE alc/w  25°C 12.0M U TI     K1=1.23   B2=1.86   1971GFc  (9842) 329
                                        B3=2.18
                                        B4=1.70
                                        B5=1.70
```

Method: Pb/Hg electrode. Medium: EtOH/H2O, C mols EtOH. When C=3, K1=0.58, B2=0.83, B3=0.30, B4=0.00. Data also at 15 C, 35 C, 45 C, 55 C and 65 C

Pb++ sp NaClO4 25°C 3.0M U K1=0.57 B2=0.48 1969FRb (9843) 330
Medium: LiClO4

Pb++ ISE NaClO4 2°C 3.0M U T K1=0.56 B2=0.53 1967FRb (9844) 331
B3=0.30
B4=-0.2
Method:Pb/Hg electrode. Medium:LiClO4. K1=0.51(25 C),0.42(43.5 C),0.36(65C); B2=0.32(25C),0.30(43.5C),0.23(65C); B3=0.32(25C),0.18(43.5C),0.15(65C)

Pb++ ISE NaClO4 25°C 3.0M U H 1967FRb (9845) 332
Method:Pb/Hg electrode. Medium: LiClO4. DH(K1)=5.9 kJ mol-1, DH(K2)=-5.4, DH(K3)=5.4; DS(K1)=-10.0 J K-1 mol-1, DS(K2)=21.7, DS(K3)=14.6

Pb++ vlt non-aq 125°C 100% U K1=2.46 B2=3.60 1966AMc (9846) 333
B3=4.6
Medium: Me2SO2

Pb++ oth oth/un 25?°C 0.0 U K1=1.3 1966MBb (9847) 334

Pb++ vlt NaClO4 25°C 2.0M U K1=0.3 B2=0.4 1965HUa (9848) 335
B3 < -2.3
By amalgam electrode: K1=0.15, B2=0.39

Pb++ vlt mixed ? 80% U K1=0.6 B2=1.0 1965MAd (9849) 336
Medium: 80% i-PrOH, HClO4

Pb++ vlt mixed 27°C 25% U I K1=0.32 B2=0.02 1964MAa (9850) 337
Medium: 25% i-PrOH, I=1.5 M ClO4. In 80%,I=1.5: K1=0.81, B2=1.15; 90%, I=1.0: K1=1.00, B3=2.19

Pb++ EMF NaClO4 25°C 4.0M U 1963MId (9851) 338
B4=-0.60
K(Na+PbL4)=-0.33
Medium: LiClO4. Method: Pb/Hg electrode. K(Na+PbL4)=-0.33, K(K+PbL4)=0.15

Pb++ ISE NaClO4 25°C 3.0M U I K1=0.5 B2=0.0 1963MKc (9852) 339
B3=-0.3
B4=-0.2
Method: amalgam electrode. I=1.0: K1=0.34, B2=0.56. Also I=4, 2, 0.75

Pb++ EMF NaClO4 25°C 3.0M U K1=0.48 B2=0.52 1963MKd (9853) 340
B3=0.08
B4=-0.64
Method: Pb/Hg electrode. Medium:LiClO4. K(Na+PbL4)=0.01 K(2Na+PbL4)=-0.89, K(K+PbL4)=0.42, K(2K+PbL4)=-0.82, K(3K+PbL4)=-0.74, K(NH4+PbL4)=0.32 etc.

Pb++ EMF alc/w 20°C 100% U B2=2.92 1961GGc (9854) 341

Method: Pb/Hg elctrode. Medium: MeOH

Pb++ EMF NaClO4 25°C 4.0M U K1=0.48 B2=0.54 1961MIc (9855) 342
B3=0.11

Method: Pb/Hg elctrode. Medium:LiClO4. Also values in NaNO3 and KNO3

Pb++ vlt oth/un 25°C 0.0 U K1=1.08 1961NRa (9856) 343

Pb++ EMF NaNO3 ? var U K1=0.80 1960GRc (9857) 344

Pb++ vlt oth/un 25°C 2.0M U I K1=0.7 1959TCa (9858) 345
Medium:LiL. Also K1 for MeOH/H2O and EtOH/H2O mixt

Pb++ vlt oth/un 25°C 2.0M U I K1=1.5 1959TSa (9859) 346
Medium:NH4L. Also K1 for MeOH/H2O and EtOH/H2O mixt

Pb++ sol NaClO4 35°C var U K1=0.7 1957MPa (9860) 347

Pb++ sp oth/un 25°C 0.0 U K1=1.15 1956BDa (9861) 348

Pb++ sp NaClO4 25°C 1.0M U I K1=0.31 1955BPa (9862) 349
Medium: HClO4. K1=0.36(I=2), 0.25(I=0.5)

Pb++ con oth/un 25°C 0.0 U H K1=1.18 1955NAa (9863) 350
DH(K1)=-2.4 kJ mol-1, DS=15 J K-1 mol-1

Pb++ vlt NaClO4 25°C 2.0M U K1=0.45 1953HSa (9864) 351
K1=0.52(Pb/Hg electrode); 0.2(spectrophotometry)

Pb++ EMF oth/un 25°C 0.0 U K1=0.9 1945NAa (9865) 352

Pb++ sol oth/un 18°C 0.20M U 1945PEa (9866) 353
Ks(PbOHL(s)+H=Pb+L+H2O)=3.55

Pb++ oth oth/un 18°C 0.0 U K1=1.19 1930RDa (9867) 354

Pb++ oth oth/un ? var U K1=0.96 B2=0.96 1908LEa (9868) 355

Pb++ sol oth/un 25°C var U K1=0.64 1901ENa (9869) 356

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N3- HL Azide CAS 7782-79-8 (441)
Azide;

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

---

Pb++ cal oth/un 25°C 0.0 U H 1956GWc (10250) 357
DH(Kso(PbL2(s,alpha))=66.7 kJ mol-1

Pb++ sol oth/un 20°C 0.0 U 1954FSa (10251) 358
Kso(PbL2(s))=-8.74

```
                                        Kso(Pb(OH)L)=-14.5
Ks(PbL2(s)+0.5H2O=0.5Pb2OL2(s)+HL)=-3.46
-------------------------------------------------------------------------------
Pb++       EMF oth/un 25°C  0.0  U                      1952SUa (10252) 359
                                        Kso(PbL2(s))=-8.59
*******************************************************************************
OH-                    HL    Hydroxide          (57)
Hydroxide;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Pb++       sp  NaClO4 25°C  1.0M C  I                     2001PHa (11850) 360
                                        *K1=-7.2
                                        *B2=-16.1
                                        *B3=-26.5
                                        *B4=-38.0
In 5.0 M NaClO4, *K1=-7.2, *B2=-16.2, *B3=-26.7 and *B4=-38.7.
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.10M U                      2000KAa (11851) 361
                                        *K1=-7.76
                                        *B2=-16.5
                                        *B3=-25.9
                                        *B(2,1)=-6.3
*B(3,4)=-23.7, *B(4,4)=-20.26, *B(6,8)=-43.2.
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 100°C 3.00M C                     1996FOa (11852) 362
                                        *K1=-6.05
                                        *B(4,4)=-15.94
Method: potentiometry plus coulometry.  Medium: 3 M LiClO4.
-------------------------------------------------------------------------------
Pb++       gl  NaNO3  50°C 0.10M U       K1=6.11   B2=10.46  1995CMa (11853) 363
                                        B(PbL3)=13.46
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 30°C 0.10M C       K1=7.75        1995STa (11854) 364
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C  1.0M C   H                 1993CWa (11855) 365
                                        *K1=-7.80
                                        *B(3,4)=-22.69
                                        *B(3,5)=-30.8
                                        *B(4,4)=-19.58
*B(6,8)=-42.43. By calorimetry: DH(*K1)=24 kJ mol-1,  DH(*B(3,4))=112,
DH(*B(3,5))=146, DH(*B(4,4))=86, DH(*B(6,8))=215 .
-------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C  1.0M C                     1993CWa (11856) 366
                                        *K1=-7.94
                                        *B(3,4)=-22.83
                                        *B(4,4)=-19.01
                                        *B(6,8)=-41.55
-------------------------------------------------------------------------------
Pb++       sol NaNO3  22°C 1.00M U    M                1989NSa (11857) 367
```

```
                                        B(Pb(OH)(NO3))=10.23
-------------------------------------------------------------------------------
Pb++       sol NaCl   22°C 1.00M U                      1989NSa (11858) 368
                                        B(Pb(OH)Cl)=11.28
-------------------------------------------------------------------------------
Pb++       EMF NaClO4 25°C 5.00M C                      1989SFb (11859) 369
                                        B3=14.07
                                        B4=13.62
                                        B6=12.72
Molal formation constants: B3=13.8, B4=13.26, B6=12.18
-------------------------------------------------------------------------------
Pb++       sp  NaClO4 25°C 0.50M U    M                 1988STa (11860) 370
                                        K(PbA+L)=4.26
A=1,10-Diaza-4,7,13,16,21,24-hexaoxabicyclo[8,8,8]hexacosane (Cryptand 222)
-------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.30M C        K1=6.2    B2=10.3   1987AZa (11861) 371
                                        B3=13.3
-------------------------------------------------------------------------------
Pb++       oth none    0°C  0.0  U                      1987BSb (11862) 372
                                        B(Pb4(OH)4)=34.97
Calculated values
-------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 3.00M C                      1987FGb (11863) 373
                                        B3=13.3
-------------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 5.00M U        K1=6.05       1985MMa (11864) 374
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C 0.70M C                      1983TVa (11865) 375
                                        *K1=-7.48
                                        *B2=-16.98
Methods: DC, NP and DP polarography.
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C  3.0M U        K1=6.87   B2=10.60  1983YYa (11866) 376
                                        B3=12.80
                                        B4=14.95
Method: polarography.
-------------------------------------------------------------------------------
Pb++       cal NaClO4 25°C  3.0M C  IH                1981IOa (11867) 377
In LiClO4. DH(*B(3,3))=66.6 kJ mol-1, DS=-20.7; DH(*B(4,4))=81.4, DS=-29.5
DH(*B(3,4))=61.6, DS=-68.4; DH(*B(6,8))=242.8, DS=1.3.Dioxane/H2O mixtures
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 3.00M U  I                 1981KOa (11868) 378
                                        *B(3,4)=-23.03
                                        *B(4,4)=-18.90
                                        *B(6,8)=-41.68
In D2O: *B(4,3)=-23.89; *B(4,4)=-20.31; *B(8,6)=-44.27
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 3.00M U  I                 1980KIa (11869) 379
                                        *B(3,3)=-15.29
                                        *B(4,4)=-19.42
```

```
                                        *B(3,4)=-22.78
                                        *B(6,8)=-42.33
Also in 0.1 and 0.2 mol fractions dioxan/water
--------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M U                      1980SBa (11870) 380
                                        *K1=-7.86,   *B(3,4)=-23.91
                                        *B(3,5)=-31.75
                                        *B(4,4)=-20.40
                                        *B(6,8)=-43.38
--------------------------------------------------------------------------------
Pb++       oth oth/un 25°C 0.70M C        K1=6.90   B2=10.80  1980SRa (11871) 381
Recalculation of literature data with allowance for alkali and alkaline
earth ion pairs. Medium: synthetic seawater, 0.70 M NaCl/NaClO4.
--------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M U    M                 1979GMa (11872) 382
                                        *K(Pb(EDDA))=-11.02
--------------------------------------------------------------------------------
Pb++       ISE KNO3   25°C 0.10M C        K1=6.77   B2=12.05  1977BLb (11873) 383
                                        Kso(Pb(OH)2))=-18.77
Method: Pb ion selective electrode.
--------------------------------------------------------------------------------
Pb++       sol oth/un 100°C    ?  U T  M                 1975TKa (11874) 384
                                        *Ks(PbO(s)+H2O)=-3.54
                                        *Ks(PbO(s)+H2O+OH)=-0.9
100-300 C. Also hydrolysis of PbTiO3
--------------------------------------------------------------------------------
Pb++       oth NaClO4 20°C 0.50M U                      1973PPb (11875) 385
                                        *Kso(M(OH)2(s)+2H=M+2H2O)=9.10
Methods: electrical migration or transference number, Tyndallometry,nephelo-
metry, and chromatography
--------------------------------------------------------------------------------
Pb++       oth none   25°C  0.0  U                     1970PPc (11876) 386
                                        *K1=-7.9, *B2=-16.2
                                        *K3=-11.5, *K4-13.1
                                        Kso(Pb(OH)2)=-16.1
                                        K(Pb(IV)O2+H)=13.2
Method:Estimated data. K(PbOH+H2O=HPb(IV)O2+2H)=-20.1
--------------------------------------------------------------------------------
Pb++       sol none   25°C  0.0  M                     1967CHa (11877) 387
                                        K(PbL(s)=PbL)=-3.83
                                        K(PbL(s)+L=PbL2)=-3.44
Ks1: PbO1.57(s) + 1.57OH- = 0.57PbO2(OH)2-- + 0.43PbOOH-.
Ks2: PbO1.33(s) + 1.33OH- = 0.33PbO2(OH)2-- + 0.67PbOOH-.
--------------------------------------------------------------------------------
Pb++       ISE NaCl   25°C 3.00M U        B2=7.78       1967SIa (11878) 388
                                        B3=9.962
--------------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 2.00M U                      1965HUa (11879) 389
                                        *K1=-8.84
                                        *B(2,1)=-7.11
```

```
                                        *B(4,4)=-21.72
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 2.00M U                      1964HUa (11880) 390
                                        *K1=-7.92
                                        *B(4,4)=-19.35
-------------------------------------------------------------------------------
Pb++       oth none   25°C  0.0  U                     1963FSa (11881) 391
                                        Kso=-14.9 (Pb2O(OH)2)
                                        Kso=-15.1 (PbO,yellow)
                                        Kso=-15.3 (PbO,red)
                                        Ks(PbO+H2O=Pb(OH)2)=-4.4(red)
Ks(PbO(s)(red)+H2O+OH=Pb(OH)3)=-1.4    From thermodynamic data
-------------------------------------------------------------------------------
Pb++       sol none   22°C  0.0  U                     1963SHb (11882) 392
                                        Kso(Pb(OH)2)=-16.79
-------------------------------------------------------------------------------
Pb++       cal NaClO4 25°C  3.0M U   H                  1962COa (11883) 393
DH(*B(4,4))=84.0 kJ mol-1,DS=-87 J K-1 mol-1; DH(*B(3,4))=110.9, DS=-66.1;
DH(*B(6,8))=206.9; DS=-113.0. *B(m,n: mPb+nH2O=Pbm(OH)n+nH)
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C  3.0M U                     1962POa (11884) 394
                                        *B(4,4)=-19.19
                                        *B(2,1)=-6.30
-------------------------------------------------------------------------------
Pb++       gl  oth/un 25°C  3.0M U  I                  1962POa (11885) 395
                                        *B(2,1)=-6.49
                                        *B(4,4)=-18.95
Medium: 3 M Mg(ClO4)2+Pb at various concs. Also in Ba(ClO4)2
-------------------------------------------------------------------------------
Pb++       vlt none   25°C  0.0  U                     1961NRa (11886) 396
                                        B3=13.90
-------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C  3.0M U  I     B2=10.90      1960COa (11887) 397
                                        B3=13.66
                                        K3=2.76
                                        *K(PbOH+H2O=Pb(OH)2+H)=-9.6
                                        *K(Pb(OH)2+H2O=M(OH)3+H)=-11.5
Method: Pb/Hg electrode. In 0.3 M NaClO4: B2=10.32, B3=13.29, *K2=-9.4,
*K3=-10.8. Kso(yellow PbO)=-14.9, -15.3(red PbO)
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C  3.0M U  I                  1960OLb (11888) 398
                                        *K1=-7.9
                                        *B(4,4)=-19.25
                                        *B(3,4)=-22.87
                                        *B(6,8)=-42.14
*B(m,n)(mPb+nH2O=Pbm(OH)n+nH). In 0.3 M NaClO4: *K1=-7.8,*B(4,4)=-19.90,
*B(3,4)=-23.35, *B(6,8)=-42.66. Pb/Hg electrode also used
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C  3.0M U  I                  1960OLc (11889) 399
                                        *B(4,4)=-19.25
```

```
                                        *B(2,1)=-6.45
Data with many different concentrations of Pb
-------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C  2.0M U                      1959OHa (11890) 400
                                        B3=12.62
-------------------------------------------------------------------------
Pb++       oth none   17°C  0.0  U                      1956CHa (11891) 401
                                        Kso(Pb(OH)2)=-18.7
-------------------------------------------------------------------------
Pb++       vlt none   25°C  0.0  U                      1955VLa (11892) 402
                                        B3=13.95
-------------------------------------------------------------------------
Pb++       gl  NaClO4 20°C 0.06M U  I                   1954FAa (11893) 403
                                        *K1=-8.37
                                        *B(4,4)=-18.05
-------------------------------------------------------------------------
Pb++       vlt KNO3   25°C  1.0M U       K1=6.9    B2=10.8   1954GOa (11894) 404
                                        K3=2.5
                                        *K1=-7.1
                                        *K2=-10.1
                                        *K3=-11.5
-------------------------------------------------------------------------
Pb++       EMF none   22°C  0.0  U T                    1952KFa (11895) 405
                                        Kso(Pb(OH)2)=-19.96
Kso=-19.49(40 C),-19.46(60 C)
-------------------------------------------------------------------------
Pb++       sol none     ?   0.0  U                      1951DCa (11896) 406
                                        Kso(Pb(OH)2)=-19.52
-------------------------------------------------------------------------
Pb++       sp  oth/un   ?   var  U                      1947GUa (11897) 407
                                        *K1=-8.44
-------------------------------------------------------------------------
Pb++       gl  none   18°C  0.0  U                      1945PEa (11898) 408
                                        *K1=-7.78
                                        *B(2,1)=-7.30
                                        *B(4,4)=-20.93
-------------------------------------------------------------------------
Pb++       sol none   25°C  0.0  U       K1=7.82   B2=10.88  1939GVa (11899) 409
                                        K3=3.06
                                        Ks(Pb(OH)2(s)=PbOH+OH)=-7.46
                                        Ks(Pb(OH)2(s)=Pb(OH)2)=-4.40
                                        Ks(Pb(OH)2(s)+OH)=-1.34
-------------------------------------------------------------------------
Pb++       gl  oth/un 15°C  var  U                      1937CBa (11900) 410
                                        *K1=-7.7
-------------------------------------------------------------------------
Pb++       dis oth/un 20°C  var  U       K1=5.77        1933JEa (11901) 411
-------------------------------------------------------------------------
Pb++       sol oth/un 25°C  var  U       K2=3.02        1929TOa (11902) 412
                                        Ks(Pb(OH)2(s)=PbOH+OH)=-7.59
```

```
                                        Ks(Pb(OH)2(s)+OH)=-0.95
                                        *K(Pb(OH)2+H2O=Pb(OH)3)=-11.09
--------------------------------------------------------------------------------
Pb++       sol none   25°C  0.0  U                    1928RSa (11903) 413
                                        Ks=-1.394(PbO(s),red)
                                        Ks=-1.275(PbO(s),yellow)
                                        Ks(Pb(OH)2(s)+OH)=-1.11
Ks: PbO(s)+H2O+OH-=Pb(OH)3
--------------------------------------------------------------------------------
Pb++       vlt oth/un 20°C  var  U                    1923HEa (11904) 414
                                        B3=12.15
                                        Kso(Pb(OH)2)=-13.96
                                        *Ks(Pb(OH)2+H2O=Pb(OH)3)=-15.5
--------------------------------------------------------------------------------
Pb++       sol oth/un 20°C  1.0M U  I                 1922ARa (11905) 415
                                        Ks=-1.86(PbO(s),red)
                                        Ks=-1.64(PbO(s),yellow)
Medium:NaOH. Ks: PbO(s)+H2O+OH-=Pb(OH)3. Kso=-15.33(red), -15.04(yellow)
--------------------------------------------------------------------------------
Pb++       ISE none   25°C  0.0  U                    1921GLa (11906) 416
                                        Kso=-14.93(PbO(s),red)
By solubility Ks(Pb(OH)2(s)+OH=Pb(OH)3)=-1.37
--------------------------------------------------------------------------------
Pb++       kin oth/un 100°C  var  U       K1=6.39      1913KUa (11907) 417
                                        *K1=-5.99
--------------------------------------------------------------------------------
Pb++       kin oth/un 25°C  var  U       K1=7.51       1910WOa (11908) 418
--------------------------------------------------------------------------------
Pb++       oth oth/un 18°C  dil  U       K2=4.40       1907PLa (11909) 419
********************************************************************************
O2                      L    Oxygen          CAS 7782-44-7  (83)
Dioxygen, also oxide; O--, and superoxide, O2-
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       vlt non-aq 450°C 100%  U       K1=4.30   B2=9.84   1972DSa (12632) 420
Ligand=Oxide, O--; Medium: (Li,K)Cl eutectic
********************************************************************************
PO4---                 H3L    Phosphate       CAS 7664-38-2  (176)
Phosphate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       sol NaCl   37°C 0.17M C                    1986RGa (13285) 421
                                        Kso((Pb)10(PO4)6(OH)2)=-167.91
Method: dissolution in phthalate/HCl buffer, 0.165 M NaCl.
Kso((Pb)10(PO4)5.4(VO4)0.6(OH)2)=-169.39.
--------------------------------------------------------------------------------
Pb++       sol NaCl   37°C 0.17M C                    1986RGa (13286) 422
Method: dissolution in phthalate/HCl buffer, 0.165 M NaCl.
```

Kso((Pb)10(PO4)4.5(VO4)1.5(OH)2)=-173.58.

Pb++ sol NaCl 37°C 0.17M C 1986RGa (13287) 423
Method: dissolution in phthalate/HCl buffer, 0.165 M NaCl.
Kso((Pb)10(PO4)3.69(VO4)2.31(OH)2)=-175.89

Pb++ sol NaCl 37°C 0.17M C 1986RGa (13288) 424
Method: dissolution in phthalate/HCl buffer, 0.165 M NaCl.
Kso((Pb)10(PO4)3(VO4)3(OH)2)=-176.09.

Pb++ sol NaCl 37°C 0.17M C 1986RGa (13289) 425
Method: dissolution in phthalate/HCl buffer, 0.165 M NaCl.
Kso((Pb)10(PO4)2.6(VO4)3.4(OH)2)=-178.51.

Pb++ sol NaCl 37°C 0.17M C 1986RGa (13290) 426
Method: dissolution in phthalate/HCl buffer, 0.165 M NaCl.
Kso((Pb)10(PO4)1.9(VO4)4.1(OH)2)=-181.71.

Pb++ gl NaClO4 25°C 0.10M U M K1=3.27 1974RMa (13291) 427
K(Pb+HL)=3.27
Mixed complexes with cysteine, citrate and NTA

Pb++ gl NaClO4 25°C 0.10M U M 1974RMb (13292) 428
K(Pb+HL)=3.27, K(Pb+2HL)=5.58
K(Pb+Fulvate+HL)=11.27
K(Pb+H2L)=2.37
K(PbFulvate+HL)=3.21

Pb++ sol none 25°C 0.0 U 1973NRa (13293) 429
Kso(Pb(H2L)2)=-9.84, Kso(Pb5L3Cl)=-84.4(chloropyromorphite)

Pb++ sol none 25°C 0.0 U 1973NRa (13294) 430
Kso(Pb5L3X)=-71.6(X=F),-78.1(X=Br)

Pb++ sol none 25°C 0.0 U 1972NRc (13295) 431
K(Pb+H2L)=1.5
K(Pb+HL)=3.1
Kso(Pb3L2)=-44.4, Ks(PbHL(s)=Pb+HL)=-11.43, Kso(Pb5L3OH)=-76.8

Pb++ sol oth/un 18°C var U 1951ZHa (13296) 432
Ks(PbHL(s)=Pb+HL)=-9.85

Pb++ ISE none 38°C 0.0 U M 1932JPa (13297) 433
Kso(Pb3L2)=-43.53
Ks(PbHL(s)=Pb+HL)=-11.36
Kso(Pb5L3Cl)=-79.115

Pb++ sol oth/un 20°C dil U 1929LAa (13298) 434
Kso=-6.99

```
Pb++       ISE none   25°C  0.0  U T                    1929MJa (13299) 435
                                      Kso(Pb3L2)=-42.10
                                      Ks(PbHL(s)=Pb+HL)=-9.90
At 37.5 C Kso=-42.00, Ks=-9.62
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 3.00M C                    1987BFa (13639) 436
                                      B(PbH3L)=15.60
                                      B(PbH2L)=14.74
--------------------------------------------------------------------------------
Pb++       sp  NaClO4 25°C 1.00M U        K1=7.14   B2=10.08  1981KKd (13640) 437
                                      K(Pb+L+HL)=6.91
In 1 M NaNO3, K=6.31, B2=9.22, K(Pb+L+HL)=6.49. Potentiometry also used
--------------------------------------------------------------------------------
Pb++       vlt NaNO3  25°C  1.0M U        K1=6.4    B2=9.40   1968CFd (13641) 438
Pb/Hg electrode also. In 0.1 M NaClO4: K1=7.3, B2=10.15
--------------------------------------------------------------------------------
Pb++       ISE oth/un 25°C  var  U        K1=10.1        1958VRb (13642) 439
--------------------------------------------------------------------------------
Pb++       cal oth/un 25°C    ?  U   H                   1956YVb (13643) 440
DH(B2)=-4.2 kJ mol-1
--------------------------------------------------------------------------------
Pb++       oth oth/un 35°C  var  U        B2=5.32 ?      1950HAa (13644) 441
--------------------------------------------------------------------------------
Pb++       vlt oth/un 25°C 0.10M U        K1=11.24       1949RRa (13645) 442
Medium: Na4L
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 0.30M U        K1=8.39   B2=9.06   1969IKa (13893) 443
                                      B3=10.81
--------------------------------------------------------------------------------
Pb++       sp  NaClO4 30°C  1.0M U                    1964SSc (13894) 444
                                      K(Pb+HL)=6.32
--------------------------------------------------------------------------------
Pb++       vlt KNO3   25°C 1.00M U                    1957PLa (13895) 445
                                      B(Pb3L4)=-4.52 ?
********************************************************************************
P3O9---               H3L                    CAS 13566-25-1  (235)
Cyclotrimetaphosphate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
```

```
Pb++       ISE NaClO4 25°C 0.40M C        K1=2.8         1986KUc (13967) 446
**************************************************************************
P4O12----             H4L                     CAS 13598-74-8  (234)
Cyclotetrametaphosphate;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 0.30M C        K1=4.5         1986KUc (14018) 447
**************************************************************************
P6O18------           H6L                       (233)
Cyclohexametaphosphate;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 0.10M C        K1=7.5    B2=12.1   1986KUc (14073) 448
                                          B3=15.3
**************************************************************************
P8O24--------         H8L                       (232)
Cyclooctametaphosphate;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 0.10M C        K1=7.5    B2=12.1   1986KUc (14085) 449
                                          B3=15.3
**************************************************************************
ReO4-                  HL    Perrhenate         (2581)
Rhenate(VII), Perrhenate;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Pb++       ISE none   25°C  0.0  C        K1=5.08   B2= 8.16  1977CCa (14107) 450
                                          Kso(PbReO4)=-8.16
Method: Pb ion selective electrode. Medium pH 6.0.
Data extrapolated to I=0.0 M. Anion is ReO4-- (ReVI).
**************************************************************************
S--                    H2L    Sulfide          CAS 7783-06-4  (705)
Sulfide;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Pb++       vlt oth/un 25°C 0.72M C                         1999AVb (14425) 451
                                          K(Pb+HL)=8.0
                                          K(Pb+2HL)=15.4
Method: determination of Pb by cathodic stripping voltammetry using oxine
as competitive ligand. Medium: seawater, pH 8.0, S=35.
--------------------------------------------------------------------------
Pb++       vlt NaCl   25°C    ?  U                      1994ZMa (14426) 452
                                          K1eff=7.1
                                          K2eff=6.4
Medium: sea water, pH=8. Method: cathodic stripping square wave voltammetry
```

```
---------------------------------------------------------------------------
Pb++       oth none     ?     0  U                        1990DKa (14427) 453
                                      *Ks(PbS+H=Pb+HS)=-13.97
                                      *Ks(PbS+HS=PbHS2)=-7.2
From recalculation of literature data.
---------------------------------------------------------------------------
Pb++       oth none   25°C  0.0  C                        1989DYa (14428) 454
                                      KPb+HS=PbS+H)=3.4
                                      *Kso(PbS)=-14.8
                                      Kso(PbS)=-11.4
Calculated from literature data, based on K(H+S)=17.0. PbS is galena.
---------------------------------------------------------------------------
Pb++       oth none   25°C    0  U                        1988LIa (14429) 455
                                      Kso(PbS)=-32.5
                                      *Kso(PbS)=-15.2
Derived from thermodynamic data and K(H+S=HS)=17.3.
---------------------------------------------------------------------------
Pb++       oth none   25°C    0  U                        1988SBc (14430) 456
                                      Kso(PbS,galena)=-33.24
Method: recalc. from literature data using K(H+S=HS)=18.57 and K(H+HS)=6.99
---------------------------------------------------------------------------
Pb++       ISE NaCl   24°C 0.10M M                        1987PFb (14431) 457
                                      Kso(PbS)=-29.5
Method: pH2S measured with Ag2S electrode.  K(H+S=HS)=13.9 and K(H+HS=H2S)=
6.92 assumed
---------------------------------------------------------------------------
Pb++       dis oth/un 25°C 0.69M U                        1985DYa (14432) 458
                                      K(Pb+H2S=PbHS2+3H)=-7.33
                                      K(Pb+2H2S=Pb(HS)2+2H)=-1.06
---------------------------------------------------------------------------
Pb++       sol NaCl   25°C 0.10M M                        1984UHa (14433) 459
                                      K(PbS(s)+H=Pb+HS)=-12.25
Constant valid at infinite dilution
---------------------------------------------------------------------------
Pb++       sol none   30°C  0.0  U T                      1979GBb (14434) 460
                                      K(PbS(s)+H2S+HS=Pb(HS)3)=-6.6
                                      K(PbS(s)+H2S=Pb(HS)2)=-7.8
Data are also available for T=100, 200 and 300 C.
---------------------------------------------------------------------------
Pb++       vlt oth/un 25°C  var  U                        1970CLa (14435) 461
                                      Kso=-26.1
---------------------------------------------------------------------------
Pb++       oth none   50°C  0.0  M T                      1969HEa (14436) 462
Estimated from literature data. Kso=-26.67(50 C); -23.96(100 C);
-21.93(150 C); -20.36(200 C); -19.14(250 C); -18.31(300 C)
---------------------------------------------------------------------------
Pb++       oth none   25°C  0.0  U                        1964PCa (14437) 463
                                      K(PbL(s)+2H=Pb+H2S(g))=-4.77
From thermodynamic data. Alternative values K=-6.10,K=-5.81,K=-6.08,K=-6.62
---------------------------------------------------------------------------
```

```
Pb++       oth none   25°C  0.0  U T                    1959CZa (14438) 464
                                        Kso(PbL)=-27.15
From thermodynamic data. Kso=-22.58(100 C), -18.80(200 C), -14.55(400 C),
-12.25(600 C)
--------------------------------------------------------------------------
Pb++       vlt none   25°C  0.0  U                      1956KRa (14439) 465
                                        Kso(PbL)=-27.9
                                        K(PbL(s)+2H=Pb+H2S(g))=-6.93
--------------------------------------------------------------------------
Pb++       oth none   25°C  0.0  U                      1952GGc (14440) 466
                                        Kso(PbL)=-27.10
From thermodynamic data
--------------------------------------------------------------------------
Pb++       oth none   25°C  0.0  U                      1952LAb (14441) 467
                                        Kso(PbL)=-28.15
From thermodynamic data
--------------------------------------------------------------------------
Pb++       oth none   25°C  0.0  U                      1940KAa (14442) 468
                                        Kso(PbL)=-28.17
From thermodynamic data
--------------------------------------------------------------------------
Pb++       sol none   25°C  0.0  U                      1937KAa (14443) 469
                                        Kso(PbL)=-29.37
--------------------------------------------------------------------------
Pb++       sol none   18°C  0.0  U                      1936RAa (14444) 470
                                        Kso(PbL)=-29.04
                                        K(PbL(s)+2H=Pb+H2S(g))=-6.1
I=0 corr. From thermodynamic data Kso=-29.15
--------------------------------------------------------------------------
Pb++       cal oth/un 20°C  dil  U   H                  1935ZRa (14445) 471
DH(PbL(s)+2H=Pb+2H2S(g))=-76.4 kJ mol-1
--------------------------------------------------------------------------
Pb++       ISE oth/un 10°C  var  U                      1922JCa (14446) 472
                                        Kso(PbL)=ca.-12.5
By Pb electrode. Medium: NaHL
--------------------------------------------------------------------------
Pb++       sol oth/un 18°C  2.0M U T                    1921TRa (14447) 473
                                        Kso(PbL)=-28.3
                                        K(PbL(s)+2H=Pb+H2S(g))=-5.3
Medium: HCl
--------------------------------------------------------------------------
Pb++       sol oth/un 25°C  var  U                      1909BZa (14448) 474
                                        Kso(PbL)=-27.47
                                        K(PbL(s)+2H=Pb+H2S(g))=-4.50
--------------------------------------------------------------------------
Pb++       ISE oth/un  rt   1.0M U                      1898BEa (14449) 475
                                        K(PbL(s)+H2L(aq)=Pb+2HL)=-3.18
**************************************************************************
SCN-                   HL    Thiocyanate      CAS 463-56-9  (106)
Thiocyanate;
```

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	vlt	NaClO4	25°C	1.0M	C	M	K1=0.15 B(Pb(SCN)NO3)=0.90	B2= 0.96	1985RRg (15195)	476
Method: polarography.										
Pb++	ISE	non-aq	25°C	100%	U		K1=1.70 B3=3.2	B2=2.6	1982SSc (15196)	477
Medium: dimethylacetamide										
Pb++	sol	NaClO4	25°C	2.0M	U	M	Kso(PbClL)=-5.00 Kso(PbBrL)=-5.22 Kso(PbIL)=-5.94 B(PbL2I)=2.64		1974FGd (15197)	478
Method: Pb amalgam electrode										
Pb++	vlt	NaClO4	25°C	2.0M	U		K1=0.48 B3=0.77 B4=0.71	B2=0.72	1974MMd (15198)	479
Pb++	ISE	non-aq	25°C	100%	U	T	K1=0.02	B2=0.87	1973SLb (15199)	480
Medium: DMSO, 1 M LiClO4. Method: Pb amalgam electrode										
Pb++	sol	NaClO4	25°C	3.0M	U		K1=0.0 B(Pb2L)=0.9		1970FSb (15200)	481
Medium: LiClO4										
Pb++	sol	NaClO4	25°C	3.0M	U	H T	K1=0.4 B3=0.9 B4=0.6 B5=1.0	B2=0.7	1969FSa (15201)	482
Medium: LiClO4. DH(K1)=--29 kJ mol-1, DH(B2)=-12.3, DH(B3)=-15.8, DH(B4)=-14.2, DH(B5)=-40.2										
Pb++	sol	NaClO4	15°C	3.0M	U	T T	K1=0.5 B3=1.0 B4=0.9 B5=1.3	B2=0.8	1969FSa (15202)	483
Medium: LiClO4. At 45 C: K1=0.0, B2=0.7, B3=0.8, B4=0.3, B5=0.5; at 65 C: K1=0.2, B2=0.5, B3-0.6, B4=0.5, B5=0.2										
Pb++	sol	oth/un	?	3.0M	U	T T	T Kso=-5.47		1969FSa (15203)	484
Medium: LiClO4; Kso=-5.89(15 C), -4.82(45 C), -4.30(65 C); From emf measurements: Kso=-6.02(15 C), -5.62(25 C), -5.19(45 C),-4.50(65 C)										
Pb++	ISE	non-aq	25°C	100%	U	T	K1=1.30 B3=1.90	B2=1.80	1968SAd (15204)	485

```
                                        B4=2.04
Method: Pb/Hg electrode. Medium: Me2NCHO, 1.2 M NaClO4
-------------------------------------------------------------------------------
Pb++       cal oth/un 25°C  0.0  U   H    K1=1.09        1967NTa (15205) 486
Medium: 0 corr. DH(K1)=1.3 kJ mol-1, DS=25.1 J K-1 mol-1
-------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C  4.0M U  I M T K1=1.08   B2=1.48   1963MKf (15206) 487
                                        K3=1.10
                                        B3=2.58
Medium: LiClO4. Method: Pb/Hg electrode. In 4 M LiL: K(Na+PbL3)=-1.82,
K(K+PbL3)=-1.40, K(Cs+PbL3)=-1.13
-------------------------------------------------------------------------------
Pb++       ISE oth/un 20°C  var  U                      1961GRb (15207) 488
                                        B8=-1.14
Medium: NaL. Method: Pb/Hg electrode
-------------------------------------------------------------------------------
Pb++       sol oth/un 25°C  var  U                      1960GRc (15208) 489
                                        K(PbL2(s)+4L=PbL6)=-4.89
                                        K(PbL2(s)=Pb+2L)=-6.87
B6=1.74 assumed. Small misprint in original?
-------------------------------------------------------------------------------
Pb++       ISE NaClO4 20°C 6.50M U                      1960GRc (15209) 490
                                        B6=1.74
-------------------------------------------------------------------------------
Pb++       ISE NaNO3  20°C 5.80M U  I                   1959GRc (15210) 491
                                        B5=-0.57
                                        B6=-1.01
Method: Pb/Hg electrode. In 2.5 M acetone: B6=-0.65; 5.7 M acetone: B6=-0.12
In acetone K(PbL(s)+2L=PbL3)=-1.33
-------------------------------------------------------------------------------
Pb++       sol R4N.X  25°C  var  U                      1959KBb (15211) 492
                                        K(PbL2(s)=Pb+2L)=-4.37
                                        K(PbL2(s)+4L=PbL6)=-4.64
                                        B6=-0.27
Medium: NH4L
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C  3.0M U       K1=0.78   B2=0.99   1959THa (15212) 493
                                        B3=0.97
                                        B4=0.92
                                        B5=0.86
                                        B6=0.63
-------------------------------------------------------------------------------
Pb++       vlt R4N.X  25°C  2.0M U  I    K1=1.70   B2=0.92   1959TSa (15213) 494
                                        K3=-0.62
                                        K4=0.78
                                        B4=1.08
Medium: NH4NO3; also K1 to B5 for MeOH/H2O, EtOH/H2O
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C  3.0M U       K1=1.08   B2=1.15   1958PDa (15214) 495
                                        K3=-0.32
```

```
                                        K4=0.33
                                        K5=-0.84
                                        K6=0.35
B6=0.67
-------------------------------------------------------------------------------
Pb++       ISE oth/un 20°C  var  U T H    K1=1.09   B2=2.52   1957GSa (15215) 496
DH(K1)=-2.5 kJ mol-1 (20 C); K1=1.06(40 C). Method: Pb/Hg electrode
-------------------------------------------------------------------------------
Pb++       vlt KNO3   25°C  2.0M U        K1=-1.3   B2=-0.90  1957IWa (15216) 497
                                        K3=-0.2
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C  2.0M U        K1=0.54   B2=0.87   1956LSa (15217) 498
                                        B3=-1
                                        B4=0.85
-------------------------------------------------------------------------------
Pb++       sol oth/un 25°C  var  U                      1951YAb (15218) 499
                                        K(PbL2(s)=Pb+2L)=-4.70
                                        B6=-0.3
*******************************************************************************
SO4--                  H2L    Sulfate          CAS 7664-93-9  (15)
Sulfate;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Pb++       sol oth/un 25°C  0.0  C TI                    1992PKa (16440) 500
                                        Kso(PbSO4)=-7.760
Medium: 0-6.0 m H2SO4.  Measurements by ICP-MS.
At 0 C, Kso=-8.010. At 60 C, Kso=-7.675.
-------------------------------------------------------------------------------
Pb++       sol NaClO4 65°C 3.00M U T H    K1=0.84   B2=1.1    1990CSa (16441) 501
Medium: 3.0 M LiClO3. Data also for 5 C; 25 C; 45 C
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 20°C 0.10M C        K1=2.30        1989HSa (16442) 502
Method: anodic amalgam voltammetry
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C 1.00M U        K1=1.20        1989NWa (16443) 503
-------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 0.00  U        K1=2.77        1985SBa (16444) 504
-------------------------------------------------------------------------------
Pb++       oth NaCl   23°C 0.70M U        K1=1.048  B2=1.183  1982ROa (16445) 505
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C  3.0M U        K1=0.74   B2=2.00   1972BHb (16446) 506
-------------------------------------------------------------------------------
Pb++       con none   25°C  0.0  U        K1=2.75        1970GNa (16447) 507
Using an ion selective electrode K1=2.70
-------------------------------------------------------------------------------
Pb++       sol NaClO4 25°C 0.20M U        K1=2.07        1969DIa (16448) 508
                                        Kso=-7.03
-------------------------------------------------------------------------------
Pb++       oth non-aq 260°C 100%  U T      K1=-0.03      1966IWa (16449) 509
```

Method:freezing point. Medium: molten LiNO3. m units

Pb++ sol oth/un 25°C 4.0M U 1966NHb (16450) 510
*Ks(PbSO4+H=Pb+HSO4)=-4.90

Pb++ sol oth/un 20°C 0.0 U K1=2.4 1965LIc (16451) 511
K(PbL(s)=PbL)=-5.38

Pb++ EMF oth/un 25°C 0.0 U 1964PCa (16452) 512
Kso(PbL)=-7.78

Pb++ sol oth/un 25°C 0.0 U T 1962ETc (16453) 513
Kso(PbL)=-7.66
Kso=-7.85(5 C), -7.74(15 C), -7.57(35 C), -7.44(50 C)

Pb++ sol oth/un ? 0.0 U K1=3.7 1961KOa (16454) 514

Pb++ sol NaClO4 25°C 1.0M U 1961RSa (16455) 515
Kso(PbL)=-6.20

Pb++ sol oth/un 25°C 0.0 U K1=2.62 B2=3.47 1960RKa (16456) 516
Kso(PbL)=-7.78
K(PbL(s)=PbL)=-5.17
K(Pb+HL)=0.15

Pb++ sol oth/un 25°C 0.0 U 1958JAa (16457) 517
Kso(PbL)=-7.82

Pb++ gl oth/un 17°C 0.0 U 1956CHa (16458) 518
K(Pb(OH)L0.5)=-13.55
K(Pb(OH)1.5L0.25)=-15.72

Pb++ sol oth/un 25°C 0.0 U H 1955SIa (16459) 519
Kso(PbL)=-7.77
DH(so)=9.3 kJ mol-1, DS=-117 J K-1 mol-1

Pb++ sol oth/un 25°C 0.0 U 1946TMa (16460) 520
Kso(PbL)=-7.79

Pb++ sol oth/un 25°C dil U 1942KPa (16461) 521
Kso(PbL)=-7.64

Pb++ EMF oth/un 25°C 0.0 U T 1934LEa (16462) 522
Kso(PbL)=-7.80
Method: Pb/Hg electrode. Kso=-8.01(0 C), -7.87(15 C), -7.73(35 C),
-7.65(46.5 C)

Pb++ sol oth/un 25°C 0.0 U T 1931CMa (16463) 523
Kso(PbL)=-7.80
Also using Pb/Hg electrode. Kso=-8.01(0 C), -7.90(12.5 C), -7.71(37.5 C),

-7.63(50 C)

Pb++ con oth/un 25°C 0.0 U 1908KOa (16464) 524
Kso(PbL)=-7.80

Pb++ con oth/un 18°C 0.0 U 1907PLa (16465) 525
Kso(PbL)=-8.0

Pb++ con oth/un 25°C dil U T 1903BOb (16466) 526
Kso(PbL)=-7.75
Kso=-7.78(20 C)

****

S2O3-- H2L Thiosulfate CAS 73686-28-7 (177)
Thiosulfate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	vlt	NaClO4	30°C	1.0M	C		K1=3.63 B3=6.70	B2= 4.83	1988GAb (16885)	527

Method: polarography.

Pb++	vlt	NaNO3	25°C	0.13M	C		K1=2.90 B3=6.65	B2= 5.47	1985GEa (16886)	528

Method: polarography.

Pb++	vlt	NaClO4	18°C	1.00M	U		K1=3.6 B3=4.3 B4=4.7	B2=3.8	1985KWa (16887)	529

Pb++	vlt	NaNO3	25°C	0.15M	C	I	B2=5.33		1983GHa (16888)	530

Method: polarography. Data for 0.15-2.1 M NaNO3. Also data for 10-50% v/v EtOH/H2O, NaNO3. Evi for tris complex at higher I and high % EtOH.

Pb++	sol	oth/un	25°C	var	U		K1=3.35 B3=6.86 Kso=-6.91	B2=5.64	1970VOa (16889)	531

Pb++	vlt	NaClO4	25°C	3.00M	U		K1=2.56 B2=4.88 B3=6.34 B4=6.23		1959DPa (16890)	532

Pb++	sol	oth/un	25°C	var	U		B2=5.59 B3=6.62 B4=7.7 Kso(PbL)=-6.58 K(PbL(s)=PbL)=-0.98		1959KBb (16891)	533

K(PbL(s)+L=PbL2)=0.05

Pb++	vlt	KNO3	25°C	2.60M	U		B2=5.89		1958DAa (16892)	534

```
--------------------------------------------------------------------------------
Pb++       sol oth/un 25°C  var  U        B2=5.13        1951YAb (16893) 535
                                         B3=6.35
                                         Kso(PbL)=-6.40
--------------------------------------------------------------------------------
Pb++       EMF oth/un   ?   var  U                       1904EUa (16894) 536
                                         B4=7.2
********************************************************************************
Se--                  H2L    Selenide           (6335)
Selenide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       oth none   25°C  0.0  U                       1964BUe (16946) 537
                                         Kso=-42.1
********************************************************************************
SeCN-                  HL    Selenocyanate    CAS 73102-11-2  (440)
Selenocyanate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       ISE oth/un 20°C  var  U TIH                   1959GKa (16992) 538
                                         B6=3.85
Medium: KL. DH(B6)=-149.0 kJ mol-1; B6=2.97(30 C). At 20 C: B6=2.89
In 2 M acetone: B6=4.14, 5 M: B6-4.63. Method: Pb/Hg electrode
--------------------------------------------------------------------------------
Pb++       sol oth/un 20°C  var  U  I                    1959GOb (16993) 539
                                         K(PbL2(s)+4L=PbL6)=-2.63
                                         K(PbL2(s)=Pb+2L)=-6.48
In acetone: K(PbL2(s)+L=PbL3)=-0.82
********************************************************************************
SeO3--                H2L    Selenite         CAS 7783-00-8  (2391)
Selenite;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       sol oth/un 20°C  var  U                       1957CTa (17068) 540
                                         Kso(PbL)=-11.5
********************************************************************************
SeO4--                H2L    Selenate         CAS 7783-08-6  (459)
Selenate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       sol oth/un 25°C  dil  U T H                   1959SKa (17107) 541
                                         Kso(PbL)=-6.84
DH(so)=16.1 kJ mol-1. Kso=-7.09(0 C), -6.95(15 C), -6.75(35 C), -6.64(50 C)
--------------------------------------------------------------------------------
Pb++       sol none   25°C  0.0  U                       1955SBa (17108) 542
                                         Kso(PbL)=-6.84
```

****
SiO3-- H2L Silicate CAS 7699-41-4 (747)
Silicate; SiO2(OH)2--

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ oth none 25°C 0.0 U 1957BAa (17218) 543
From thermodynamic data. Ks(1.5PbSiO4(s)+H2O=0.5SiO2(s)+Pb+2OH)=-16.38
****
VO4--- H3L CAS 15457-75-7 (1586)
Vanadate; VO2(OH)3-- or polymers

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ sol NaCl 37°C 0.17M C 1986RGa (17388) 544
Kso((VO4)6(OH)2)=-187.24
Method: dissolution in phthalate/HCl buffer, 0.165 M NaCl.
Kso((Pb)10(PO4)1.2(VO4)4.8(OH)2)=-184.45.
****
WO4-- H2L Tungstate CAS 13783-36-3 (445)
Tungstate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ ISE none 25°C 0.0 C 1977CCa (17443) 545
Kso(PbWO4)=-10.08
Method: Pb ion selective electrode. Medium pH 6.0.
Data extrapolated to I=0.0 M.

Pb++ sol oth/un 20°C 0.00 U 1973BAa (17444) 546
Kso=-16.07 (tetragonal)
****
CHO3F3S HL CAS 1493-13-6 (6755)
Trifluoromethanesulfonic acid; CF3SO3H

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ nmr KCl 20°C 0.10M U 2000XEa (17468) 547
K1=ca.0.091
****
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
---
Pb++ oth NaClO4 25°C 2.0M U K1=1.15 1990FTa (17628) 548
Methods: averaged results from potentiometric, polarographic and
spectrophotometric measurements.

Pb++ nmr NaNO3 25°C 0.40M U K1=1.56 B2= 2.74 1983NRa (17629) 549

Method: 207Pb nmr.

Pb++	EMF diox/w 25°C 50% U	K1=2.30		1978SPa (17630)	550
Pb++	ISE NaClO4 25°C 0.50M U I	K1=1.26		1975SAe (17631)	551
Pb++	gl NaNO3 30°C 0.40M U	K1=1.65		1970BTa (17632)	552
Pb++	EMF NaClO4 25°C 2.00M U	K1=1.11	B2=1.70	1970FMa (17633)	553
		B3=2.19			
Pb++	vlt NaClO4 25°C 2.00M U	K1=1.23	B2=2.01	1968FPa (17634)	554
		B3=1.76			
Pb++	vlt KNO3 30°C 1.0M U	K1=0.85	B2=0.98	1966JGb (17635)	555
		B3=1.15			
Pb++	gl none 26°C 0.0 U	K1=0.74		1958SBb (17636)	556
Pb++	vlt NaClO4 25°C 2.0M U	K1=0.78	B2=1.20	1957HBa (17637)	557
		B3=1.43			
		B4=1.18			

****

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
Pb++	vlt alc/w ? 40% U I	K1=-0.90	B2=0.8	1962MGa (17679)	558

Medium: 40% MeOH, 0.05 NaClO4. K1=1.00(77%); B2=1.11(77%), 2.35(92%) 3.4(100%); B3=2.11(85%)

Pb++	vlt alc/w ? 90% U I	K1=1.7	B2=2.75	1962MGa (17680)	559

Medium: 90% EtOH, 0.05 NaClO4. K1=0.67(13%),1.11(40%),1.85(71%),1.85(82%); B2=1.63(71%),1.83(82%),4.20(96%); B3=4.49(96%),4.6(100%); B4=4.9(100%)

****

CH4N2S L Thiourea CAS 62-56-6 (51)

Thiocarbamide, Thiourea; (H2N)2CS

Metal	Mtd Medium Temp Conc Cal Flags	Lg K values		Reference	ExptNo
Pb++	con NaClO4 25°C 1.00M U	K1=0.59	B2=1.43	1998GZa (17839)	560
		B3=1.86			
		B4=1.69			
		B6=3.78			
Pb++	vlt NaClO4 30°C 1.00M U T H	K1=0.63	B2=0.93	1980BVa (17840)	561
		B3=0.70			
		B4=2.42			

DH(K1)=-10.1 kJ mol-1, DS=-21 J K-1 mol-1; DH(B2)=-8.0, DS=-20,

DH(B3)=-17.9, DS=-42; DH(B4)=-36.7, DS=-74

Pb++ sp NaClO4 25°C 1.00M U K1=0.56 1979FFa (17841) 562

Pb++ sp NaClO4 25°C 1.00M U I K1=0.56 1978GFc (17842) 563

Pb++ ISE alc/w 25°C 80% U I K1=1.26 B2=1.92 1976FFa (17843) 564
B3=2.73
B4=3.00
B5=3.53
B6=3.34

Medium: 80% w/w EtOH/H2O, 0.1 M LiClO4. Pb electrode. Data also for 40%.
In 100% H2O: K1=0.17; B2=0.86; B3=1.35; B4=1.47; B5=1.43; B6=1.81

Pb++ gl oth/un 45°C 0.10M U T K1=0.28 B2=0.80 1975FFc (17844) 565
B3=1.10
B4=1.95
B5=1.96
B6=1.90

Medium: LiClO4

Pb++ ISE NaClO4 25°C 0.10M U I K1=0.17 B2=0.86 1974FFa (17845) 566
B3=1.35
B4=1.47
B5=1.43
B6=1.81

Pb++ vlt R4N.X 25°C 0.01M U I K1=0.40 B2=0.56 1971TMf (17846) 567
B3=1.23
B4=1.81

Medium: 0.01 NH4NO3, Data also in 20%, 40% and 60% dioxan/H2O
In 60%: K1=1.02, B2=1.52, B3=2.50, B4=2.87, B5=4.37

Pb++ vlt KNO3 25°C 0.10M U K1=0.60 B2=1.04 1958LRa (17847) 568
B3=0.98
B4=2.04

****

CH5N3S L CAS 79-19-6 (372)
Thiosemicarbazide; H2N.CS.NH.NH2

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

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Pb++ vlt NaNO3 25°C 0.13M C M K1=1.95 B2= 2.32 1985GEa (18081) 569
B3=3.35
B(PbL(S2O3))=5.11
B(PbL(S2O3)3)=6.09

Method: polarography.

****

CH5O3P H2L CAS 13590-71-1 (1752)
Methylphosphonic acid; CH3.PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	M		K1=3.60		1999DSa (18132)	570

****

C2HO2F3 HL Trifluoracetic CAS 76-05-1 (1360)
Trifluorethanoic acid; F3C.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	vlt	NaClO4	25°C	2.0M	U		K1=0.02	B2=-0.14	1964CCa (18350)	571

Using Pb-ISE: K1=-0.03, B2=-0.48

****

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
Pb++	vlt	oth/un	25°C	0.1M	U		K1=7.0		1995FFa (19008)	572
Pb++	vlt	NaClO4	25°C	1.0M	C T H		K1=4.00	B2= 6.28	1992RRa (19009)	573

Method: polarography. Medium pH 6.5. Data for 15-35 C.
DH(K1)=-8.9 kJ mol-1, DS(K1)=47 J K-1 mol-1; DH(B2)=-9.8, DS(B2)=87.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	EMF	NaClO4	20°C	1.00M	C		K1=3.32	B2=5.50	1991VRa (19010)	574
Pb++	vlt	KNO3	25°C	1.00M	U		K1=3.4	B2=5.6	1989NWa (19011)	575
Pb++	vlt	NaClO4	30°C	1.0M	C		K1=3.30	B2= 5.76	1988GMc (19012)	576

Method: polarography.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	vlt	KNO3	25°C	2.5M	C		K1=5.08	B2= 6.65	1986RRd (19013)	577

Method: polarography.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	vlt	KNO3	25°C	1.0M	C	M	K1=3.596 B(PbAL)=4.78 B(PbA2L)=5.70 B(PbAL2)=5.09	B2= 5.57	1985DVb (19014)	578

Method: polarography. H2A is tartaric acid.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	vlt	NaClO4	25°C	1.0M	U	M	K1=4.0	B2=6.3	1985RRd (19015)	579

B(PbL(malonate))=5.6

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	ISE	NaClO4	25°C	0.10M	U		K1=4.30	B2=6.27	1985SBa (19016)	580
Pb++	vlt	KNO3	25°C	1.50M	U	M	K1=3.36 B(PbL(malate))=4.22 B(PbL(Gly))=6.48 B(PbL(en))=7.43	B2=5.10	1984LSa (19017)	581

```
Pb++       vlt NaClO4 25°C  1.0M C        K1=4.22   B2= 6.29  1984RBe (19018) 582
Method: polarography.
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C  1.0M C        K1=4.0    B2= 6.28  1984RPa (19019) 583
Method: polarography.
-------------------------------------------------------------------------------
Pb++       sol NaClO4 25°C  1.0M C        K1=3.60   B2= 6.10  1982BJa (19020) 584
                                         Kso(PbL)=-8.78
Method: pH and lead amalgam electrodes.
At I=0.0 M, Kso(PbL)=-10.32.
-------------------------------------------------------------------------------
Pb++       vlt KNO3   30°C 1.00M U    M                 1982GSa (19021) 585
B(Cd(2-mercaptobenzoate)2L) = 14.73
-------------------------------------------------------------------------------
Pb++       sol oth/un 20°C 2.10M U    M   K1=7.63       1978KUa (19022) 586
                                         B(PbL(lactate))=8.77
-------------------------------------------------------------------------------
Pb++       ISE KNO3   25°C 0.10M C                     1977BLc (19023) 587
                                         Kso(PbC2O4)=-9.40
Method: Pb ion selective electrode.
-------------------------------------------------------------------------------
Pb++       sol NaClO4 25°C  1.0M U   H    K1=4.16   B2= 6.32  1977HOb (19024) 588
                                         K(Pb+HL)=1.42
                                         Ks=-9.02
-------------------------------------------------------------------------------
Pb++       sol NaClO4 20°C 2.10M U    M                 1977KWa (19025) 589
                                         B(PbL(C2H5COO))=8.46
                                         B(PbLA)=9.40
                                         B(PbLB)=8.77
                                         B(PbLC)=8.85
B(PbLA2)=10.30, B(PbLD)=8.83, B(PbL(HCOO))=7.80, B(PbL(CH3COO))=8.52.
H2A=malonic acid, H2B=succinic acid, H2C=malonic acid, H2D=tartaric acid
-------------------------------------------------------------------------------
Pb++       sol oth/un 20°C 2.10M U        K1=6.99       1971KSd (19026) 590
-------------------------------------------------------------------------------
Pb++       vlt KNO3   25°C 0.00  U  I     K1=4.91   B2=6.76   1970KLa (19027) 591
Ionic strength 1.50, K1=3.33, B2=5.10
-------------------------------------------------------------------------------
Pb++       vlt KNO3   30°C 1.50M U        K1=3.32   B2=5.03   1968JKb (19028) 592
-------------------------------------------------------------------------------
Pb++       dis NaClO4 20°C 0.10M U        B2=6.56       1963STc (19029) 593
-------------------------------------------------------------------------------
Pb++       sol oth/un 26°C  0.0  U        B2=6.54       1942KPa (19030) 594
*******************************************************************************
C2H3NO4                HL                     CAS 625-75-2  (2968)
Nitroacetic acid; O2N.CH2.COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Pb++       kin oth/un 18°C 0.20M U        K1=0.14       1949PEa (19208) 595
```

Medium: Ba(NO3)2

****

C2H3O2Cl HL Chloroacetic CAS 79-11-8 (34)

Chloroethanoic acid; ClCH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	nmr	NaNO3	25°C	0.40M	U		K1=1.76	B2= 2.71	1983NRa (19374)	596

Method: 207Pb nmr.

Pb++	gl	NaNO3	30°C	0.40M	U		K1=1.1		1970BTa (19375)	597

Pb++	vlt	NaClO4	18°C	2.00M	U		K1=1.48	B2=1.65	1970FBa (19376)	598
							B3=1.97			

Pb++	EMF	NaClO4	18°C	2.00M	U		K1=1.51	B2=2.05	1970FMa (19377)	599

Pb++	sol	none	?	0.0	U		K1=1.52	B2=2.65	1955MAc (19378)	600

****

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
Pb++	gl	KNO3	25°C	0.10M	C		K1=2.37		2003AHa (19499)	601

****

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
Pb++	vlt	KNO3	25°C	0.20M	U		K1=2.35	B2= 3.00	1997KSd (20089)	602
							B3=4.0			

Method: ion transfer voltammetry at water/nitrobenzene interface.

Medium: 0.20 M LiNO3

Pb++	gl	alc/w	25°C	100%	M	H	K1=6.6	B2=9.9	1994MPc (20090)	603

Medium: MeOH. DH(B1)=26.6 kJ mol-1, DS=215 J K-1 mol-1; DH(B2)=39.7, DS=323

Pb++	EMF	NaClO4	20°C	1.00M	C		K1=2.09	B2=3.01	1991VRa (20091)	604
							K3=0.36			
							K4=-0.52			

Pb++	oth	NaClO4	25°C	2.0M	U		K1=2.08		1990FTa (20092)	605

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

Pb++	sol	oth/un	25°C	var	U	T	K1=2.4	B2=3.4	1989GIa (20093)	606

25-85 C. Constants at I=0

```
Pb++       vlt oth/un 25°C  var  C        K1=2.16   B2= 2.91  1987CRb (20094) 607
                                         B3=3.49
Method: polarography. Medium: 0.05-2.0 M acetate buffer.  Evidence for
higher coordination numbers involving outer sphere complexes.
-------------------------------------------------------------------------------
Pb++       nmr oth/un 25°C  var  C T H    K2=1.86        1983HHb (20095) 608
Method: 207Pb nmr. K2 value valid for 0.01-1.0 M Pb(OAc)2 solution.
From data for 30-50 C: DH(K2)=14.2 kJ mol-1, DS(K2)=82.9 J K-1 mol-1.
-------------------------------------------------------------------------------
Pb++       nmr NaNO3  25°C 0.40M U        K1=2.11   B2= 3.06  1983NRa (20096) 609
Method: 207Pb nmr.
-------------------------------------------------------------------------------
Pb++       ISE KNO3   25°C 0.10M U        K1=2.09   B2=3.29   1980NWa (20097) 610
-------------------------------------------------------------------------------
Pb++       EMF diox/w 25°C  50%  U        K1=3.29        1978SPa (20098) 611
-------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 0.50M U  I     K1=1.45   B2=2.64   1975SAe (20099) 612
-------------------------------------------------------------------------------
Pb++       kin NaClO4 25°C 1.00M U        K1=2.21        1973HHb (20100) 613
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C 0.30M U    M                  1971KTd (20101) 614
                                      K(Pb(Asp)+L)=1.85
                                      K(Pb(Asp)L+L)=0.13
                                      K(PbA+L)=0.49
H2A=iminodiethanoic acid
-------------------------------------------------------------------------------
Pb++       gl  NaNO3  30°C 0.40M U        K1=1.93        1970BTa (20102) 615
-------------------------------------------------------------------------------
Pb++       EMF NaClO4 25°C 2.00M U        K1=1.91   B2=2.42   1970FMa (20103) 616
                                         B3=3.79
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 20°C 1.00M U        K1=2.31   B2=4.23   1970PTd (20104) 617
                                         B3=6.00
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C 2.00M U        K1=2.15   B2=3.18   1968FPa (20105) 618
                                         B3=3.33
-------------------------------------------------------------------------------
Pb++       gl  oth/un 25°C  0.0  U        K1=2.68   B2=4.08   1964AMa (20106) 619
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 30°C  1.0M U        K1=2.02   B2=2.98   1964BSe (20107) 620
-------------------------------------------------------------------------------
Pb++       gl  non-aq 25°C 100%  U        K2=7.55        1964KLa (20108) 621
Medium: ethanoic acid
-------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C  3.0M U        K1=2.33   B2=3.60   1963GOa (20109) 622
                                         B3=3.59
                                         B4=2.87
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 20°C 0.10M U        K1=2.20   B2=3.59   1962KPa (20110) 623
-------------------------------------------------------------------------------
```

```
Pb++       sp  non-aq 25°C 100%  U        B2=8.03        1961PSa (20111) 624
Medium: ethanoic acid
-------------------------------------------------------------------------------
Pb++       vlt oth/un 25°C 0.20M U T      K1=2.11   B2=2.59   1960TKb (20112) 625
K1=2.11(15 C), B2=2.88(15 C); K1=2.00(35 C), B2=2.58(35 C)
-------------------------------------------------------------------------------
Pb++       gl  oth/un 25°C 0.10M U        K1=2.1         1960YYa (20113) 626
-------------------------------------------------------------------------------
Pb++       gl  oth/un 32°C  ->0  U        K1=2.48        1958BGb (20114) 627
-------------------------------------------------------------------------------
Pb++       gl  oth/un 31°C  ->0  U        K1=2.48   B2=3.99   1958SBb (20115) 628
-------------------------------------------------------------------------------
Pb++       vlt oth/un 25°C 1.98M U        K1=2.18   B2=2.92   1956BHa (20116) 629
                                         B3=3.48
-------------------------------------------------------------------------------
Pb++       EMF oth/un 25°C 1.98M U        K1=2.19   B2=2.91   1956BHa (20117) 630
                                         B3=3.52
-------------------------------------------------------------------------------
Pb++       sol oth/un 25°C 1.98M U        K1=2.11   B2=2.89   1956BHa (20118) 631
                                         B3=3.39
-------------------------------------------------------------------------------
Pb++       EMF oth/un 30°C  ->0  U        K1=2.43   B2=3.95   1953APa (20119) 632
-------------------------------------------------------------------------------
Pb++       ISE none   30°C  0.0  U        K1=2.52        1952DAa (20120) 633
-------------------------------------------------------------------------------
Pb++       vlt oth/un   ?     ?  U        K1=2.22        1949TOb (20121) 634
                                         K3=2.40
                                         K4=2.10
-------------------------------------------------------------------------------
Pb++       sp  oth/un 30°C 0.20M U        K1=1.39        1946PSa (20122) 635
-------------------------------------------------------------------------------
Pb++       sol R4N.X  25°C  1.0M U        K1=2.05        1940EBa (20123) 636
Medium: NH4ClO4
-------------------------------------------------------------------------------
Pb++       ISE oth/un 25°C 0.50M U        K1=2.70   B2=4.20   1910JAa (20124) 637
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       gl  oth/un 25°C .002M U        K1=8.5         1955LMa (20355) 638
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 1.00M U      T K1=2.01   B2=2.94   1971BVa (20603) 639
                                          K(Pb(OH)3+L=PbH-1LOH+OH)=-0.70
```

					K(Pb(OH)3+2L=PbH-2L2+OH)=-0.15			
Pb++	vlt	NaClO4	18°C	2.00M	U	K1=1.90 B2=3.05 B3=3.38	1970FBa (20604)	640
Pb++	EMF	NaClO4	25°C	2.00M	U	K1=1.83 B2=2.86 B3=3.15 B4=4.28	1970FMa (20605)	641
Pb++	vlt	KNO3	30°C	1.0M	U	K1=1.90 B2=3.16	1966JGc (20606)	642
Pb++	EMF	NaClO4	25°C	3.0M	U	K1=2.23 B2=3.24 B3=3.26	1965BWb (20607)	643

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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
Pb++	gl	NaClO4	25°C	0.50M	C		K1=4.76 B2= 7.40 B(PbHL)=11.1	1995CDc (21656)	644
Pb++	vlt	NaClO4	25°C	0.40M	C		K1=5.3 B2= 7.80 B3=10.0 K(Pb+OH+L)=9.9 K(Pb+OH+2L)=11.1 K(Pb+2OH+L)=12.7	1991YNb (21657)	645
							Method: polarography. K(Pb+2OH+2L)=13.6, K(Pb+3OH+L)=14.7, K(Pb+4OH+L)=17.3.		
Pb++	ISE	NaClO4	25°C	3.0M	C	T	K(Pb+HL=PbL+H)=-5.04 K(Pb+2HL=PbL2+2H)=-12.10 K(Pb+HL)=1.23; K(Pb+2HL)=1.75 K(Pb+3HL)=2.07	1988BBa (21658)	646
Pb++	vlt	NaClO4	25°C	0.70M	C		K1=4.91 B2= 8.01	1986CSa (21659)	647
							Method: differential pulse polarography.		
Pb++	ISE	KNO3	25°C	0.10M	U	T	K1=5.63 B2=8.10 K(PbL+H)=7.70 K(PbH-1L+H)=8.48	1985DVa (21660)	648
Pb++	vlt	KNO3	25°C	1.50M	C		K1=4.28 B2=6.58	1984LSa (21661)	649
Pb++	oth	NaClO4	35°C	0.01M	U	T	K1=5.86 B2=8.38	1984YSa (21662)	650
							Method: paper electrophoresis.		
Pb++	nmr	NaNO3	25°C	0.40M	U		K(Pb+HL)=1.48	1983NRa (21663)	651

K(Pb+2HL)=2.08

Method: 207Pb nmr.

Pb++ ISE KNO3 25°C 0.10M U K1=5.00 B2=7.73 1980NWa (21664) 652

Pb++ gl NaClO4 25°C 1.00M U T K1=5.46 B2=9.32 1979KMa (21665) 653
B(PbHL)=12.60
B(PbH-1L)=-2.77

Pb++ gl NaClO4 25°C 3.00M U T K1=5.28 B2=8.32 1979MTa (21666) 654
B(PbHL)=11.41

Pb++ gl NaClO4 25°C 1.00M U T K1=4.78 B2=7.66 1978BSb (21667) 655
B(PbHL)=10.75
B(PbHL2)=14.7
B(PbH2L2)=21.15

Pb++ gl NaClO4 25°C 3.00M C T H T K1=5.75 1976CWb (21668) 656
B(PbHL)=11.88
B(PbH-1L)=-1.89

DH(K1)=-12.4 kJ mol-1, DH(PbHL)=-25, DH(PbH-1L)=17, DS1=69, DS(PbHL)=143

Pb++ gl NaClO4 25°C 3.00M U T K1=5.600 1975CMa (21669) 657
B(PbHL)=11.396
B(PbH-1L)=-2.142

Pb++ gl KNO3 25°C 0.50M U M K1=4.36 B2=7.62 1969HLa (21670) 658
B(PbLA)=8.86
B(PbLA2)=4.9 ?

HA=salicylaldehyde

Pb++ vlt KNO3 30°C 1.0M U M K1=5.11 B2=7.08 1964RSe (21671) 659
B(PbL2(CO3)2)=8.61

Ternary complexes with NTA

Pb++ gl KNO3 25°C 0.10M U B2=7.7 1955MMa (21672) 660

By polarography B2=7.4

Pb++ gl oth/un 22°C 0.01M U B2=9.3 1952PEa (21673) 661

Medium: Pb(NO3)2

Pb++ gl oth/un 25°C ->0 U K1=5.47 B2=8.86 1951MOa (21674) 662

Pb++ gl oth/un 25°C 0.01M U K1=5.53 B2=9.98 1949MMa (21675) 663

Pb++ sol oth/un 25°C ->0 U K1=5.17 1941KRa (21676) 664

****

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
Pb++	gl	KNO3	25°C	0.50M	U		K1=3.09		1985WTa (21830)	665

****

C2H6N2S L Methyl-Thiourea CAS 598-52-7 (1077)
N-Methylthiourea; CH3.NH.CS.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	sp	NaClO4	25°C	1.00M	U		K1=0.64		1979FFa (22011)	666
Pb++	ISE alc/w		25°C	80%	U	I	K1=1.54	B2=1.90	1976FFa (22012)	667
							B3=3.70			
							B4=4.00			

Medium: 80% w/w EtOH/H2O, 0.1 M LiClO4. Pb electrode. Data also for 40%.
In 100%: H2O K1=0.45; B2=0.62; B3=1.95; B4=1.30; B5 =2.70; B6 = 3.45

****

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
Pb++	gl	NaNO3	25°C	0.15M	U		K1=6.74		1982JHa (22073)	668
							B(Pb2L)=8.73			
							B(Pb3L4)=33.31			
							B(Pb3L5)=39.88			
Pb++	cal	KNO3	25°C	0.50M	U	H			1974BHa (22074)	669
							B(Pb3L5)=38.48			
							B(Pb2L)=9.07			
							B(Pb3L4)=22.78			

DH(Pb3L5)=-163.2 kJ mol-1, DH(Pb2L)=-16.7, DH(Pb3L4)=-125.5

Pb++	gl	KNO3	25°C	0.50M	C		B(Pb2L)=9.071		1974BTa (22075)	670
							B(Pb2L2)=15.769			
							B(Pb3L5)=38.496			
							B(Pb2L3)=22.037, (Pb3L4)=32.74			
Pb++	gl	oth/un	?	0.0	U		B2=14.53		1961AMa (22076)	671

****

C2H6O2 L Ethyleneglycol CAS 107-21-1 (924)
1,2-Dihydroxyethane (Ethane-1,2-diol); HO.CH2.CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	ISE	oth/un	25°C	1.00M	U				1968VIa (22153)	672
							K(Pb(OH3)+L)=0.30			

Medium: NaOH

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	nmr	alc/w	34°C	50%	C		K1=-1.05	1980SSa (22192)	673

Also in D2O, K1=-1.5

****

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
Pb++	vlt	KNO3	25°C	0.10M	C	I	K(Pb+2OH+L)=12.50	1986ABb (22410)	674

Method: polarography. Also data for 16-68%w/w MeOH/H2O.
In 33.3% MeOH/H2O, K(Pb+3OH+L)=14.37, K(Pb+OH+2L)=9.94.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KNO3	25°C	1.00M	U		B(PbLOH)=8.377 B(PbL(OH)2)=11.701 B(Pb(OH)3)=12.640	1985SBb (22411)	675
Pb++	gl	NaNO3	25°C	0.10M	U		K1=4.10	1984HNa (22412)	676
Pb++	vlt	alc/w	25°C	20%	U	I	K1=8.08 B2=8.48	1962MSa (22413)	677

Medium: 20% EtOH, 0.01 M NaClO4. 0%:K1=6.70, B2=7.58; 40%:B2=9.03;
60%: B2=9.71

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KNO3	25°C	0.10M	U		B2=7.56	1959MPa (22414)	678

****

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
Pb++	gl	KCl	25°C	0.10M	C		K1=10.10 B(PbHL)=14.32 B(PbH-1L)=3.68	1995LMa (22496)	679
Pb++	gl	KCl	25°C	0.10M	U		K1=9.9 K(Pb+HL)=5.24	1955FRa (22497)	680
Pb++	gl	KNO3	25°C	0.15M	U		K1=11.10	1955LMa (22498)	681

****

C2H7O2PS2 HL CAS 5930-72-3 (4229)
O,O-Dimethyldithiophosphoric acid; (CH3O)2.PS.SH

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

```
Pb++       vlt mixed   RT   50%  C        B2=5.85        1986HSd (22545) 682
                                         B3=8.02
                                         B4=8.76
Medium: 50% v/v DMF/H2O. Method: polarography.
********************************************************************************
C2H7O3P              H2L                    CAS 71778-99-9  (1978)
Ethylphosphonic acid; CH3.CH2.PO3H2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.10M M        K1=3.69        1999DSa (22569) 683
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       vlt NaNO3  25°C 0.10M U T H    K1=5.05   B2=8.67   1995CMa (23206) 684
                                         B(PbH-1L2)=12.6
                                         B(PbH-2L2)=15.29
Data also at 5 and 50 C. Method: Differential pulse polarography
--------------------------------------------------------------------------------
Pb++       vlt KNO3   25°C  1.5M C    M   K1=4.08   B2= 7.24  1986GVa (23207) 685
                                         K3=2.86
                                         K(PbL+A)=1.62
                                         K(PbL2+A)=0.97
Method: polarography. H2A is adipic acid.
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.10M U        K1=5.04        1985MMa (23208) 686
--------------------------------------------------------------------------------
Pb++       vlt KNO3   25°C 1.50M C        K1=5.11   B2=7.13   1984LSa (23209) 687
--------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M C  I   R B2=8.5         1984PAa (23210) 688
IUPAC evaluation
--------------------------------------------------------------------------------
Pb++       vlt KNO3   25°C  1.5M C    M   K1=4.08   B2= 7.24  1983GJa (23211) 689
                                         B3=10.10
                                         K(PbL+A)=2.02
                                         B(PbAL)=6.10
                                         B(PbAL2)=8.38
Method: polarography. B(PbA2L)=6.54. H2A is maleic acid.
--------------------------------------------------------------------------------
Pb++       vlt KNO3   25°C  1.5M C    M   K1=4.08   B2= 7.24  1983GJc (23212) 690
                                         B3=10.10
Method: polarography. Ternary complexes with malonate.
--------------------------------------------------------------------------------
Pb++       vlt KNO3   25°C  1.5M C    M   K1=4.079  B2= 7.24  1983GVa (23213) 691
                                         B3=10.099
                                         B(PbAL)=6.329
                                         B(PbA2L)=6.702
```

B(PbAL2)=8.459
Method: polarography. H2A is malonic acid.

Pb++ vlt KNO3 25°C 0.20M U B2=8.44 1974KOd (23214) 692

Pb++ vlt oth/un ? ? U B2=8.58 1973TTb (23215) 693

Pb++ vlt alc/w 25°C 60% U I K1=7.84 B2=8.78 1969IMa (23216) 694
Medium: 0.1(LiNO3), 0-93.5% EtOH. 0%, K1=7.0, B2=8.45; 93.5%, B2=9.83

Pb++ oth oth/un ? ? U B2=26.90 1948MMa (23217) 695
****
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
---
Pb++ vlt NaClO4 25°C 0.40M C K1=11.8 B2=14.50 1989NOc (23393) 696
K(Pb+H3L)=3.6
K(Pb+HL)=12.0
K(Pb+OH+L)=13.4
K(Pb+2HL)=16.7
Method: polarography. Medium pH=11.5-12.0.
****
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
---
Pb++ gl KNO3 25°C 0.1M C K1=10.15 1985MMa (23459) 697
B(PbHL)=17.0
B(PbH2L)=21.4
****
C3HO2F5 HL CAS 422-64-0 (3547)
Pentafluoropropanoic acid; C2F5.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ vlt NaClO4 25°C 2.0M U K1=-0.03 B2=-0.01 1964CCb (23479) 698
By ion-selective electrode: K1=-0.21, B2=-0.34
****
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
---
Pb++ gl NaClO4 25°C 2.0M U K1=1.14 B2= 1.68 1981MFa (23511) 699
****
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
--------------------------------------------------------------------------------
Pb++       gl  alc/w  25°C  50%  U        K1=1.26   B2=1.60   1978PBa (23576) 700
--------------------------------------------------------------------------------
Pb++       vlt KNO3   25°C 0.10M U        K1=-0.40  B2=-0.47  1966CRb (23577) 701
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       vlt NaNO3  25°C  2.0M U    M   K1=2.9    B2=4.3    1985SSe (23914) 702
                                         B3=6.3
                                         B(PbLA)=4.19
                                         B(PbLB)=4.3
                                         B(PbLC)=8.0
H2L=tartaric acid, H2B=malonic acid, H3C=citric acid. Measurements at pH 6
--------------------------------------------------------------------------------
Pb++       vlt NaNO3  25°C  2.0M C        K1=2.90   B2= 4.30  1983SSd (23915) 703
                                         B3=6.30
Method: polarography.
--------------------------------------------------------------------------------
Pb++       gl  oth/un 25°C 0.50M U        K1=1.1    B2=2.09   1977HMb (23916) 704
Medium: imidazolinium nitrate
********************************************************************************
C3H4N2S                 HL    Imidazolethiol   CAS 872-35-5  (1823)
2-Mercaptoimidazole; C3H3N2.SH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.10M U        K1=6.53        1977STc (23973) 705
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       vlt NaClO4 30°C  1.0M C    M   K1=1.96   B2= 3.30  1988GMc (24061) 706
                                         B(Pb(ox)L)=2.19
                                         B(Pb(ox)L2)=3.77
                                         B(Pb(cit)L)=4.91
                                         B(Pb(cit)2L)=6.20
Method: polarography. B(PbAL)=3.49, B(PbAL2)=3.17,
B(PbA2L)=4.02. HA is benzoic acid.
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.11M U TIH    K1=1.72        1984GMc (24062) 707
Data for 30-50 C. Data for 0.03-0.11 M NaClO4. At I=0.0 M, K1=2.67
DH(K1)=25.5 kJ mol-1, DS(K1)=120 J K-1 mol-1.
--------------------------------------------------------------------------------
```

```
Pb++       gl  NaClO4 25°C 2.00M U        K1=1.50        1980MKb (24063) 708
--------------------------------------------------------------------------
Pb++       gl  KNO3   25°C  1.0M M T H    K1=2.20        1976DFb (24064) 709
DH(K1)=-31.8 kJ mol-1, DS=-64.4 J K-1 mol-1.  30 C: K1=2.10; 40 C: 1.94;
50 C: 1.77; 55 C: 1.69
--------------------------------------------------------------------------
Pb++       EMF NaClO4 25°C 3.00M U        K1=2.04   B2=3.24   1969LWb (24065) 710
--------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 3.00M U        K1=2.04   B2=3.40   1969LWb (24066) 711
--------------------------------------------------------------------------
Pb++       sol NaClO4 25°C 3.00M U        K1=2.04        1969LWb (24067) 712
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       vlt oth/un 25°C  0.1M U        K1=2.6         1995FFa (24523) 713
--------------------------------------------------------------------------
Pb++       vlt NaNO3  25°C 2.00M U    M   K1=2.6    B2=3.3    1985KSd (24524) 714
                                         B3=4.5
                                         B(PbLpy)=3.2
                                         B(PbL2py)=3.7
--------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C  1.0M U    M   K1=2.9    B2=4.17   1985RRd (24525) 715
                                         B3=4.58
B(PbL(oxalate))=5.6
--------------------------------------------------------------------------
Pb++       vlt NaNO3  25°C  2.0M U    M   K1=2.6    B2=3.3    1985SSe (24526) 716
                                         B3=4.5
                                         B(PbL(imidazole))=4.3
                                         B(PbL2(imidazole))=5.5
                                         B(PbL(imidazole)2)=7.3
--------------------------------------------------------------------------
Pb++       vlt KNO3   25°C 1.50M C        K1=1.74   B2=3.14   1984LSa (24527) 717
--------------------------------------------------------------------------
Pb++       vlt KNO3   25°C  1.5M C    M   K1=2.86   B2= 3.66  1983GJc (24528) 718
                                         B3=4.27
                                         B(Pb(en)L)=6.33
                                         B(Pb(en)L2)=6.70
                                         B(Pb(en)2L)=8.46
Method: polarography. B(Pb(pn)L)=6.75, B(Pb(pn)L2)=6.94,
B(Pb(pn)2L)=9.04; pn is 1,2-diaminopropane.
--------------------------------------------------------------------------
Pb++       vlt KNO3   25°C  1.5M C        K1=2.857  B2= 3.67  1983GVa (24529) 719
                                         B3=4.268
Method: polarography.
--------------------------------------------------------------------------
Pb++       EMF NaClO4 25°C 2.00M C        K1=2.79   B2=4.20   1977HOa (24530) 720
                                         B3=4.16
```

B(1,1,1)=6.20
B(2,1,2)=11.54
B(1,1,2)=8.28
B(1,1,3)=9.03; B(p,q,r): pH+qPb+rL=HpPbqLr

Pb++ vlt NaClO4 30°C 2.00M U K1=2.60 B2=3.62 1968GPb (24531) 721
B3=4.32

Pb++ gl oth/un 25°C 0.10M U K1=3.1 1960YYa (24532) 722

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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
Pb++	oth	oth/un	25°C	0.10M	U		K1=7.30	B2=13.0	1973RBc (24659)	723
Pb++	ISE	KNO3	25°C	0.10M	U		K1=7.32	B2=13.03	1967BPa (24660)	724

****

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
Pb++	vlt	mixed	18°C	90%	U	I	K1=1.2	B2=1.5	1962MGb (24856)	725
							B3=1.70			
							B4=1.7			
							B5=1.1			

Medium: 90% acetone, 0.05 M NaClO4. In 90% acetone,10% MeOH:K1=0.40,B2=0.43.
In 90% acetone,10% EtOH: K1=0.0, B2=-0.7, B3=0.45

****

C3H6OS HL CAS 1892-31-5 (3550)
Thiopropanoic acid; CH3.CH2.CO.SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	NaClO4	30°C	.007M	U		K1=6.74		1967MSe (24859)	726

****

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
Pb++	vlt	NaClO4	25°C	2M	C		K1=2.31	B2=3.32	1996GGa (25028)	727
							B3=3.64			

Method: Differential Pulse Polarography

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	oth	NaClO4	25°C	2.0M	U		K1=2.19	1990FTa (25029)	728

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

```
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C  2.0M U        K1=2.17   B2=3.21   1982TGa (25030) 729
                                         B3=3.42
semi-integral linear sweep voltammetry, using slsv/HDME method
For slsv/DME K1=2.19 , B2=3.20 , B3=3.44
--------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C  2.0M C T H    K1=2.116  B2= 3.22  1980TGb (25031) 730
                                         B3=3.45
Method: polarography. Data for 6-30 C. DH(K1)=-4.7 kJ mol-1, DS(K1)=
25 J K-1 mol-1; DH(K2)=5.7, DS(K2)=41.
--------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 0.50M U  I     K1=1.61        1975SAe (25032) 731
--------------------------------------------------------------------------------
Pb++       EMF NaClO4 25°C 2.00M U        K1=2.07   B2=3.35   1970FMa (25033) 732
--------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 3.00M U        K1=1.90   B2=2.57   1969LWb (25034) 733
                                         B3=2.08
--------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C 2.00M U        K1=2.34   B2=3.76   1968FPa (25035) 734
                                         B3=3.90
                                         B4=4.18
--------------------------------------------------------------------------------
Pb++       ISE oth/un 35°C  0.0  U        K1=2.64   B2=4.05   1966AAa (25036) 735
--------------------------------------------------------------------------------
Pb++       gl  none   25°C  0.0  U        K1=2.34   B2=3.63   1958SBb (25037) 736
--------------------------------------------------------------------------------
Pb++       EMF oth/un 35°C  ->0  U        K1=2.64   B2=4.15   1955MAc (25038) 737
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 2.00M U   H    K1=2.10   B2=3.17   1978FDa (25274) 738
                                         K3=0.34
--------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C 2.00M U        K1=2.13   B2=3.10   1973NPa (25275) 739
                                         B3=3.56
--------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 1.00M U        K1=1.95   B2=2.94   1971BVa (25276) 740
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       EMF NaClO4 25°C  1.0M C TIH  R K1=1.99   B2= 2.90  2003PLa (25500) 741
IUPAC Recommended values. Data for metal complexes of all aliphatic
hydroxycarboxylic acids evaluated critically
--------------------------------------------------------------------------------
```

```
Pb++       gl  NaClO4 25°C  2.0M U        K1=2.06   B2=3.05   1982TGa (25501) 742
                                         B3=3.24
semi-integral linear sweep voltammetry using slsv/HDME method
For slsv/DME, K1=2.03, B2=3.07, B3=3.26
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C  2.0M C T H    K1=2.052  B2= 3.04  1980TGb (25502) 743
                                         B3=3.26
Method: polarography. Data for 5-34 C. DH(K1)=-4.2 kJ mol-1, DS(K1)=
25.1 J K-1 mol-1; DH(K2)=4.2, DS(K2)=33.
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 2.00M U   H    K1=2.16   B2=3.23   1978FDa (25503) 744
                                         K3=0.44
-------------------------------------------------------------------------------
Pb++       sol oth/un 20°C 2.10M U    M                  1978KUa (25504) 745
                                         B(PbL(ox))=8.77
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 2.00M U        K1=2.16   B2=3.23   1976KGa (25505) 746
                                         B3=3.67
-------------------------------------------------------------------------------
Pb++       gl  NaClO4   ?   1.0M U    M T K1=1.99   B2=2.78   1971BVa (25506) 747
K(Pb(OH)3+L=PbLH-1(OH)+OH+H2O)=-0.70
-------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 3.00M U        K1=2.26   B2=3.30   1969LWb (25507) 748
                                         B3=3.33
-------------------------------------------------------------------------------
Pb++       sol NaClO4 25°C 3.00M U        K1=2.29   B2=3.62   1969LWb (25508) 749
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C 2.00M U        K1=2.15   B2=3.14   1968FPa (25509) 750
                                         B3=3.26
                                         B4=2.95
-------------------------------------------------------------------------------
Pb++       EMF NaClO4 25°C  1.0M U        K1=1.98   B2=2.98   1967TGa (25510) 751
Method: quinhydrone electrode.
-------------------------------------------------------------------------------
Pb++       EMF NaClO4 25°C  3.0M U        K1=2.26   B2=3.30   1965BWb (25511) 752
                                         B3=3.33
-------------------------------------------------------------------------------
Pb++       sol NaClO4 25°C  3.0M U        K1=1.71   B2=2.38   1965BWc (25512) 753
-------------------------------------------------------------------------------
Pb++       sol oth/un   ?   ->0  U        K1=2.40   B2=3.80   1955MAc (25513) 754
-------------------------------------------------------------------------------
Pb++       con oth/un 25°C    ?  U        K1=2.777       1954EMa (25514) 755
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 2.00M U        K1=2.10   B2=3.26   1979KFa (25631) 756
                                         B3=3.48
```

```
--------------------------------------------------------------------------------
Pb++       vlt NaClO4   ?  2.00M U        K1=2.53   B2=3.76   1968TFa (25632) 757
                                         K3=-0.30
                                         K4=0.23
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C  1.0M C        K1=4.58   B2= 7.83  1996MSa (26230) 758
                                         K(Pb+HL)=1.11
                                         K(Pb+2HL)=1.40
                                         K(Pb+HL+L)=5.00
Method: polarography
--------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C  1.0M C        K1=4.58   B2= 7.83  1991PMa (26231) 759
                                         K(Pb+HL)=1.12
                                         K(Pb+2HL)=1.40
                                         K(Pb+HL+L)=5.00
Method: polarography.  Medium pH 3.2-7.0
--------------------------------------------------------------------------------
Pb++       ISE KNO3   25°C 0.10M U      T K1=5.43   B2=7.00   1985DVa (26232) 760
                                         K(PbL+H)=7.77
                                         K(PbH-1L+H)=8.35
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C  1.0M C      T K1=5.43   B2=9.22   1982BMb (26233) 761
                                         B(PbHL)=12.71
                                         B(PbH-1L)=-3.02
--------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 1.00M C        K1=4.4         1977BOa (26234) 762
                                         B(PbHL)=10.74
                                         B(PbHL2)=15.2
                                         B(PbH2L2)=21.2
--------------------------------------------------------------------------------
Pb++       gl  KNO3   20°C 0.37M U        K1=4.15   B2=9.39   1966SWa (26235) 763
--------------------------------------------------------------------------------
Pb++       vlt KNO3   30°C  1.0M U        K1=4.18   B2=6.83   1964RSe (26236) 764
                                         B(PbL2(OH))=9.85
--------------------------------------------------------------------------------
Pb++       gl  oth/un 25°C  ->0  U        K1=5.00   B2=8.24   1951MOa (26237) 765
--------------------------------------------------------------------------------
Pb++       sol oth/un 25°C  ->0  U        K1=5.52        1941KRa (26238) 766
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 1.00M U        K1=4.2         1977BOb (26471) 767
```

B(PbHL)=11.92
B(PbH2L2)=23.04

Pb++ vlt KNO3 30°C 1.0M U 1964RSe (26472) 768
B(PbL2(OH)2)=12.11
****
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
---
Pb++ gl NaClO4 25°C 3.00M U K1=5.17 B2=8.13 1979MTa (26542) 769
B(PbHL)=11.58
****
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
---
Pb++ gl NaClO4 25°C 1.0M C T K1=12.20 B2=15.90 1982BMb (26814) 770
B(PbHL)=16.16
B(PbHL2)=25.10
B(PbH-1L)=2.04

Pb++ sp NaClO4 25°C 0.50M U K1=12.21 1982NAb (26815) 771

Pb++ gl NaClO4 25°C 3.00M C K1=12.21 B2=18.57 1976CWa (26816) 772
B(PbHL)=17.35
B(PbHL2)=27.48
B(PbH-1L2)=7.33

Pb++ gl NaClO4 25°C 3.00M C T H K1=13.21 1976CWb (26817) 773
B(PbHL)=17.43
B(PbHL2)=27.30
DH(K1)=-42.4 kJ mol-1, DH(PbHL)=-57, DH(PbHL2)=-112, DS1=111, DS(PbHL)=143

Pb++ gl NaClO4 25°C 0.10M U M K1=11.45 1974RMa (26818) 774
Mixed complexes with HPO4(B=16.53), citrate(18.27) and NTA(25.53)

Pb++ gl NaClO4 25°C 3.00M U K1=13.36 B2=19.20 1973CTb (26819) 775
B3=22.47

Pb++ gl KNO3 25°C 0.10M U K1=11.39 1964LMa (26820) 776

Pb++ gl KNO3 25°C 0.15M U K1=12.20 1955LMa (26821) 777
By polarography K1=12.75
****
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
Pb++	gl	KNO3	25°C	0.10M	U	I	K1=4.66 B(PbH-1L)= -3.53		1990RAb (27159)	778
Data also for 10% w/w EtOH/H2O (K1=4.89; B(PbH-1L)=-3.57) and 25% EtOH/H2O (5.25; -3.53).										
Pb++	vlt	KNO3	30°C	1.0M	C		K1=4.80	B2= 7.90	1989SCc (27160)	779
Method: polarography. Medium pH >5.6										
Pb++	gl	NaClO4	25°C	3.00M	M		K1=5.25 B(PbHL)=10.88 B(PbHL2)=15.5 B(PbH2L2)=21.2	B2=8.4	1988BFa (27161)	780
Pb++	vlt	NaClO4	25°C	0.70M	C		K1=4.71	B2= 7.88	1986CSa (27162)	781
Method: differential pulse polarography.										
Pb++	gl	NaClO4	25°C	1.00M	U		K1=4.86 B(PbHL)=11.00 B(PbH-1L)=-3.15		1979KMa (27163)	782
Pb++	gl	KNO3	25°C	0.50M	U		K1=4.48 B3=10.69	B2=8.00	1979SGc (27164)	783
Pb++	vlt	KNO3	25°C	0.50M	C	I	K1=4.48 B3=10.69	B2= 8.00	1979SGe (27165)	784
Method: polarography. Ligand is DL-serine. In 15%v/v DMF/H2O: K1=4.78, B2=8.84, B3=10.91. In 15% v/v DMSO/H2O, K1=5.18, B2=8.81, B3=11.25.										
Pb++	gl	NaClO4	25°C	3.00M	U		K1=5.05 B3=9.96	B2=8.27	1973CTb (27166)	785

****

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
Pb++	gl	KNO3	25°C	0.50M	U		K1=2.52		1985WTa (27212)	786

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	vlt	KNO3	25°C	0.10M	U		B2=16.3		1991BSe (27277)	787
Pb++	EMF	non-aq	25°C	100%	U		B2=14.3		1987USa (27278)	788
Medium: DMF, 0.1 M LiClO4										

****

C3H8N2S L Ethyl-thiourea CAS 625-53-6 (1079)
N-Ethylthiourea; C2H5.NH.CS.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	sp	NaClO4	25°C	1.00M	U		K1=0.58		1979FFa (27634)	789
Pb++	ISE	alc/w	25°C	80%	U	I	K1=1.56	B2=1.60	1976FFa (27635)	790
							B3=2.26			
							B4=3.49			

Medium: 80% w/w EtOH/H2O, 0.1 M LiClO4. Pb electrode. Data also for 40%.
In 100% H2O: K1=0.54; B2=0.84; B3=2.13; B4=2.39; B5=3.06; B6=3.60

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	oth/un	25°C	0.10M	U	T	K1=0.54	B2=0.84	1975FFc (27636)	791
							B3=2.13			
							B4=2.39			
							B5=3.06			
							B6=3.60			

Medium: LiClO4

****

C3H8O2 L Propyleneglycol CAS 57-55-6 (2025)
Propan-1,2-diol; CH3.CH(OH).CH2(OH)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	oth/un	25°C	1.00M	U			1968VIa (27682)	792
							K(Pb(OH)3+L)=0.30		

Medium: NaOH

****

C3H8O2 L Dihydroxypropan CAS 504-63-2 (130)
Propane-1,3-diol; HO.CH2.CH2.CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	oth/un	25°C	1.00M	U			1968VIa (27694)	793
							K(Pb(OH)3+L)=-0.20		

Medium: NaOH

****

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
Pb++	cal	KNO3	25°C	0.50M	U	H	K1=6.634	B2=12.495	1974BHa (27711)	794
							B3=15.90			
							B(Pb3L5)=38.09			
							B(Pb2L)=7.87			
							B(Pb3L4)=32.415			

DH(K1)=-12.55 kJ mol-1, DH(B2)=-58.58, DH(B3)=-58.6, DH(Pb3L5)=-163.2,
DH(Pb2L)=-50.2, DH(Pb3L4)=-133.9

Pb++ gl KNO3 25°C 0.50M C K1=6.634 B2=12.495 1974BTa (27712) 795
B3=15.901
B(Pb3L5)=38.088
B(Pb2L)=7.87
B(Pb3L4)=32.415

****

C3H8O3 L Glycerol CAS 56-81-5 (2707)
Propane-1,2,3-triol; HO.CH2.CH(OH).CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	NaClO4	25°C	1.0M	U		K1=1.15	1967VLa (27744)	796

****

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
Pb++	EMF	KNO3	20°C	0.10M	U		K1=16.79 B2=23.86	1968PRc (27765)	797

****

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
Pb++	gl	KNO3	25°C	0.50M	U	TIH	K1=17.29 B2=24.81	1992NOa (27795)	798
Pb++	EMF	KNO3	20°C	0.10M	U		K1=16.38 B2=22.21	1968PRc (27796)	799

****

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
Pb++	vlt	KNO3	25°C	0.10M	U		K1=5.49 B2=7.72	1981AAa (27876)	800

****

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
Pb++	vlt	KNO3	25°C	0.10M	U		K1=6.00 B2=8.08	1980AAa (27888)	801

****

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
Pb++	vlt	KNO3	25°C	0.10M	U		K1=6.72 B2=7.54	1981AAa (27917)	802

****

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
Pb++	vlt	KNO3	25°C	1.5M	C	M	K1=5.06 B3=10.96	B2= 8.20	1983GJc (28168)	803

Method: polarography. Ternary complexes with malonate.

Pb++	vlt	KNO3	25°C	0.20M	U		B2=8.62		1974KOd (28169)	804

****

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
Pb++	gl	NaClO4	20°C	0.10M	U		K1=6.29 B(PbHL)=14.61		1991WBa (28312)	805

Pb++	vlt	KNO3	25°C	1.5M	C	M	K1=5.06 K3=2.76 K(PbL+A)=0.89 K(PbL2+A)=0.54	B2= 8.20	1986GVa (28313)	806

Method: polarography. H2A is adipic acid.

Pb++	vlt	KNO3	25°C	1.5M	C	M	K1=5.06 B3=10.96 K(PbL+A)=1.49 B(PbAL)=6.55 B(PbAL2)=8.88	B2= 8.20	1983GJa (28314)	807

Method: polarography. B(PbA2L)=6.82. H2A is maleic acid.

Pb++	vlt	KNO3	25°C	1.5M	C	M	K1=5.061 B3=10.959 B(PbAL)=6.755 B(PbA2L)=6.939 B(PbAL2)=9.041	B2= 8.20	1983GVa (28315)	808

Method: polarography. H2A is malonic acid.

Pb++	vlt	KNO3	25°C	1.5M	C	M			1983GVa (28316)	809

Method: polarography. A is malonic acid.

Pb++	vlt	NaClO4	30°C	0.10M	U		K1=7.54	B2=8.36	1975MJc (28317)	810

Pb++	vlt	KNO3	25°C	0.20M	U		B2=8.16		1974KOd (28318)	811

****

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
Pb++	gl	KNO3	25°C	0.10M	C		K1=15.8		1997DBb (28581)	812
							K(PbL+H)=6.7			
							K(PbH2L+H)=3.8			
							K(PbHL+H)=5.16			
							K(PbH3L+H)=1.9			
Pb++	vlt	NaClO4	25°C	0.40M	C				1988NKb (28582)	813
							K(Pb+H3L)=5.3			
							K(Pb+H2L)=7.0			
							K(Pb+HL)=10.1			

Method: polarography. Medium pH=4.5-5.0.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	alc/w	25°C	10%	U		K1=16.22		1987SHa (28583)	814
							K(PbL+H)=6.49			
							K(PbHL+H)=5.28			
							K(PbH2L+H)=3.57			

In 10% ethanol/H2O; I=0.1 M NaClO4.

****

C4HO2F7 HL (3582)

Heptafluorobutanoic acid; CF3.CF2.CF2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	vlt	NaClO4	25°C	2.0M	U		K1=-0.21	B2=0.00	1964CCa (28613)	815

By Pb ion-selective electrode: K1=-0.36, B2=-0.35

****

C4H3N3O3S H3L Thiovioluric CAS 23036-77-3 (2000)

2-Thio-4,5,6(H)-pyrimidinetetrone 5-oxime

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	C				1979DDb (28724)	816
							K(Pb+4H2L)=20.00			
Pb++	gl	diox/w	30°C	50%	U		K1=3.44		1973CSb (28725)	817

Medium: 50% dioxan, 0.1 M NaClO4

****

C4H4N2OS HL 2-Thiouracil CAS 141-90-2 (4278)

4-Hydroxy-2-mercaptopyrimidine; HO.C4H2N2.SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	oth/un	25°C	0.01M	U	T	K1=4.74	B2=8.18	1970GWa (28805)	818

K1(35 C)=4.67, K1(45 C)=3.99, K2(35 C)=3.32, K2(45 C)=3.45

****

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
-------------------------------------------------------------------------
Pb++       vlt KNO3   25°C  1.0M C    M   K1=2.254  B2= 3.40  1985DVb (29115) 819
                                          B3=3.827
                                          B(PbAL2)=5.32
                                          B(PbAL)=4.98
                                          B(PbA2L)=5.40
Method: polarography. H2A is oxalic acid.
-------------------------------------------------------------------------
Pb++       vlt NaNO3  25°C 2.00M U    M   K1=1.70   B2=2.60   1985KSd (29116) 820
                                          B3=3.56
                                          B(PbLpy)=3.63
                                          B(PbL2py)=3.18
-------------------------------------------------------------------------
Pb++       vlt KNO3   25°C  1.5M C        K1=2.81   B2= 3.48  1983GJa (29117) 821
                                          B3=4.10
Method: polarography.
-------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 1.00M C        K1=2.75   B2=4.03   1975OSa (29118) 822
                                          K(PbHL)=0.58
                                          K(Pb+2HL)=0.7
                                          B3=4.36
-------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C 0.20M U  I     K1=3.0    B2=4.5    1967NMa (29119) 823
                                          B3=5.4
At I=0.1 M: K1=3.2
-------------------------------------------------------------------------
Pb++       gl  oth/un 25°C 0.10M U        K1=3.2         1960YYa (29120) 824
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  alc/w  25°C  50%  U        K1=0.99        1978PBa (29506) 825
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.10M U        K1=6.95        1977STc (29665) 826
*************************************************************************
C4H6O2                  HL    Crotonic acid    CAS 107-93-7  (2990)
But-2-enoic acid; CH3.CH:CH.COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       vlt KNO3   27°C  1.0M C        K1=2.0    B2= 3.51  1983CPb (29721) 827
Method: polarography. Medium: 1.0 M KNO3, pH 6.5.
```

****

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
Pb++	gl	diox/w	25°C	50%	C		K1=2.76	1978SPa	(29742) 828

****

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
Pb++	gl	KNO3	25°C	0.10M	C		K1=2.99 K(Pb+HL)=1.95	1997VZa	(30016) 829
Pb++	vlt	oth/un	25°C	0.1M	U		K1=2.4	1995FFa	(30017) 830
Pb++	vlt	NaNO3	25°C	2.00M	U	M	K1=2.7 B2=3.4 B3=3.9 B(PbLpy)=2.8 B(PbL2py)=3.1	1985KSd	(30018) 831
Pb++	vlt	NaClO4	25°C	1.0M	C	M	K1=2.82 B2= 3.72 B3=4.54 B(PbAL)=5.41 B(PbAL2)=5.86 B(PbA2L)=6.10	1984RPa	(30019) 832

Method: polarography. H2A is oxalic acid.

Pb++	vlt	NaNO3	25°C	2.0M	C	M	K1=2.7 B2= 3.40 B3=3.9 B(PbAL)=4.9 B(PbA2L)=6.7 B(PbAL2)=6.0	1983SSd	(30020) 833

Method: polarography. A is imidazole.

Pb++	vlt	KNO3	30°C	2.0M	C		K1=2.36 B2= 3.51 B3=4.07	1977BCa	(30021) 834

Method: polarography. Medium pH 6.8.

Pb++	ISE	NaClO4	25°C	1.00M	C		K1=2.68 B2=3.99 B3=3.89 B(1,1,1)=6.98 B(2,1,2)=13.01 B(1,1,2)=8.84	1977HOa	(30022) 835

B(1,1,3)=9.20; B(p,q,r): pH+qPb+rL=HpPbqLr

Pb++	vlt	NaClO4	30°C	2.00M	U		K1=2.40 B2=3.73 B3=4.11	1968GPb	(30023) 836

Pb++ gl oth/un 25°C 0.10M U K1=2.8 1960YYa (30024) 837
****
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
---
Pb++ gl NaNO3 30°C 0.40M U K1=1.17 1970BTa (30087) 838
****
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
---
Pb++ gl NaClO4 25°C 0.50M U K1=3.36 1976NCa (30226) 839
B(PbHL)=5.74

Pb++ gl oth/un 25°C 0.10M U K1=3.6 1957TBb (30227) 840
****
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
---
Pb++ gl oth/un 30°C .007M U K1=10.80 1967MSd (30353) 841
Medium: 0.007 ClO4-
****
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
---
Pb++ sp NaClO4 20°C 0.01M U K1=19.80 1973ENa (30395) 842
K(2Pb+L)=28.05
****
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
---
Pb++ gl NaClO4 25°C 0.10M U K1=2.4 1968SKd (30413) 843
****
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
---
Pb++ gl KNO3 25°C 0.10M C K1=17.4 1991HCa (30430) 844

```
Pb++       gl  NaCl   37°C 0.15M U                      1985WWa (30431) 845
                                      B(PbHL)=24.82
                                      B(PbH-1L)=19.98
--------------------------------------------------------------------------
Pb++       sp  NaClO4 20°C 0.10M U       K1=17.46       1972EGa (30432) 846
                                      K(PbL+Pb)=9.74
                                      K(Pb2L+H2L=2PbL+2H)=-13.10
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M C       K1=3.22        1975LPa (30452) 847
                                      K(Pb+HL)=2.16
--------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.10M U       K1=3.2         1966SYa (30453) 848
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       ISE NaNO3  25°C 1.00M U       K1=2.45   B2=3.70   1968BLa (30698) 849
                                      Keff(PbL)=0.46 pH > 12
                                      K(Pb+L+0H=PbH-1L)=0.57 pH > 12
                                      K(Pb+2L+2OH=PbH-2L2)=3.36 pH12
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  KCl    25°C 0.10M C       K1=4.41        1984MMg (30909) 850
                                      K(PbL+H)=1.45
--------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C 0.40M C       K1=5.0    B2= 5.90  1978NSa (30910) 851
                                      B3=7.3
                                      K(Pb+OH+L)=10.9
                                      K(Pb+OH+2L)=12.9
                                      K(Pb+2OH+L)=16.3
Method: polarography. Medium pH 1.2-7.3 and 12.2-12.6. K(Pb+2OH+2L)=18.6,
K(Pb+3OH+L)=19.2, K(Pb+4OH+L)=21.0
--------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.50M U       K1=4.19        1976NCa (30911) 852
                                      K(PbHL)=6.02
--------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C 0.20M U  I    K1=4.53   B2=6.82   1964KKc (30912) 853
K1=4.95(I=0),4.92(I=0.04); K2=2.45(I=0),2.38(I=0.04)
--------------------------------------------------------------------------
```

Pb++ gl oth/un 25°C 0.10M U K1=4.4 1960YYa (30913) 854

****

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
Pb++	vlt	NaClO4	30°C	1.0M	C		K1=2.57	B2= 4.23	1988GAb (31325)	855

Method: polarography.

Pb++	vlt	KNO3	25°C	1.0M	C	M	K1=1.944	B2= 3.84	1985DVb (31326)	856
							B(PbAL)=4.71			
							B(PbAL2)=5.32			
							B(PbA2L)=5.40			

Method: polarography. H3A is citric acid.

Pb++	vlt	NaNO3	25°C	2.00M	U	M	K1=1.30	B2=4.20	1985KSd (31327)	857
							B(PbLpy)=2.40			
Pb++	vlt	NaNO3	25°C	2.0M	U	M	K1=1.30	B2=2.9	1985SSe (31328)	858
							B(PbL(imidazole))=4.19			
Pb++	ISE	NaClO4	25°C	1.00M	U		K1=2.60	B2=3.95	1972BVb (31329)	859
							B(PbHL)=5.45			
							B(PbHL2)=7.45			
Pb++	gl	NaClO4	25°C	0.10M	U		K1=3.09		1972MRc (31330)	860

Value quoted for meso form. K1(DL)=3.59, B2(meso-DL)=8.77

Pb++	EMF	oth/un	22°C	?	U	K1=4.34	1969PDb (31331)	861
Pb++	dis	NaClO4	20°C	0.10M	U	K1=2.92	1963STc (31332)	862
Pb++	oth	oth/un	25°C	?	U	K1=3.78	1956PAa (31333)	863
Pb++	oth	oth/un	?	?	U	K1=3.04	1955KOa (31334)	864

****

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
Pb++	EMF	NaClO4	25°C	1.00M	U		K1=8.20	B2=15.59	1972RBb (31478)	865

****

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
Pb++	oth	oth/un	?	?	U		K1=8.20	B2=15.59	1973RBc (31481)	866

****

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
Pb++	nmr	NaNO3	25°C	0.40M	U		K1=1.81	B2= 2.51	1983NRa (31505)	867

Method: 207Pb nmr.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	30°C	0.40M	U		K1=1.40	1970BTa (31506)	868

****

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
Pb++	gl	KNO3	25°C	0.10M	C		K1=6.08		2003AHa (31909)	869
Pb++	gl	KNO3	25°C	0.10M	M	M	K1=6.08		1996AEa (31910)	870

Data for ternary complexes with dipicolinic acid.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	EMF	NaClO4	25°C	1.00M	C		K1=6.00	B2=8.30	1989BFa (31911)	871
							B(PbHL)=11.50			
							B(PbH2L)=14.33			
							B(PbHL2)=16.30			
							B(PbH2L2)=22.35.			

Method: Pb/Hg electrode. B(PbH3L2)=25.35, B(PbH4L2)=28.30.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	vlt	NaClO4	25°C	0.70M	C		K1=5.86	B2= 8.85	1986CSa (31912)	872

Method: differential pulse polarography.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	ISE	KNO3	25°C	0.10M	U		K1=6.08	B2=8.51	1985DVa (31913)	873
							K(PbL+H)=7.35			
							K(PbL+2H)=9.10			
							K(PbH-1L+H)=8.65			
Pb++	oth	NaClO4	25°C	1.0M	U		K1=6.02		1982CSc (31914)	874
							B(PbHL)=11.28			
							B(PbH-1L)=-3.54			

Method: recalculation of literature data.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	NaClO4	25°C	1.00M	U		K1=6.02		1979KMa (31915)	875
							B(PbHL)=11.28			
							B(PbH-1L)=-3.54			
Pb++	gl	NaClO4	25°C	3.00M	U		K1=6.67	B2=9.43	1973CTb (31916)	876
							B(PbHL)=12.28			
Pb++	vlt	NaClO4	25°C	0.30M	U		K1=6.03	B2=8.18	1971KTd (31917)	877

Pb++ vlt KNO3 30°C 1.0M U M K1=5.88 B2=7.38 1964RSe (31918) 878
B(PbL2(CO3))=8.88

****

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
Pb++	gl	KNO3	25°C	0.10M	U		K1=7.41	1983FSa (32328)	879
Pb++	con	KNO3	25°C	1.00M	U		K1=6.86 B2=9.15 B(PbHL)=10.7	1981MOa (32329)	880
Pb++	ISE	KNO3	25°C	0.10M	U		K1=7.67	1980NWa (32330)	881
Pb++	sp	NaClO4	25°C	0.50M	U		K1=7.36	1976KIa (32331)	882
Pb++	gl	NaClO4	25°C	0.50M	U		K1=7.31 B(PbHL)=10.36 B(PbH2L)=12.7	1976NCa (32332)	883
Pb++	ISE	NaClO4	25°C	0.50M	U		K1=7.31 B(PbHL)=10.36 B(PbH2L)=12.7	1972NAa (32333)	884
Pb++	vlt	NaClO4	25°C	0.30M	U		K1=7.76 B2=11.54	1971KTd (32334)	885
Pb++	gl	KNO3	20°C	0.10M	U	H	K1=7.45	1964ANa (32335)	886

By calorimetry: DH(K1)=-14.0 kJ mol-1, DS=95.0 J K-1 mol-1

****

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
Pb++	gl	diox/w	25°C	50%	U		K1=7.3	1954CFa (32546)	887

****

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
Pb++	gl	KNO3	25°C	0.10M	M	M	K1=3.71	1996AEa (32716)	888

Data for ternary complexes with dipicolinic acid.

Pb++	EMF	NaCl	25°C	1.00M	C		K1=3.60 B2=5.29 B(PbHL)=8.50 B(PbH2L2)=18.70	1996BFa (32717)	889

Method: Pb/Hg electrode

```
Pb++       gl  NaClO4 25°C 3.00M U        K1=4.91   B2=7.82   1973CTb (32718) 890
                                         B3=8.82
-------------------------------------------------------------------------------
Pb++       vlt KNO3   30°C  1.0M U        K1=4.36   B2=6.23   1964RSe (32719) 891
                                         B(PbL2(OH))=10.02
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       nmr NaNO3  25°C 0.40M U                         1983NRa (33039) 892
                                         K(Pb+HL)=1.49
                                         K(Pb+2HL)=1.97
Method: 207Pb nmr.
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 3.00M C T H    K1=3.82         1976CWb (33040) 893
                                         B(PbHL)=10.01
DH(K1)=-12.7 kJ mol-1, DH(PbHL)=-38,  DS1=30, DS(PbHL)=34 J K-1 mol-1
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 3.00M U        K1=3.375        1975CMa (33041) 894
                                         B(PbHL)=9.907
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C 0.10M U        K1=3.32   B2=5.35   1974NBa (33042) 895
                                         K(Pb+HL)=1.50
-------------------------------------------------------------------------------
Pb++       nmr oth/un 25°C 0.80M U        K1=3.0          1972RLb (33043) 896
                                         K(Pb+HL)=1.30
Medium: 0.8 M, 0.2 Pb(NO3)2
-------------------------------------------------------------------------------
Pb++       gl  oth/un 25°C    ?  U T      K1=5.04   B2=9.84   1971PEd (33044) 897
Temperature range 10-40C
K1(10 C)=5.39, K1(40 C)=4.80, B2(10 C)=10.41, B2(40 C)=9.35
-------------------------------------------------------------------------------
Pb++       gl  oth/un 21°C 0.01M U        B2=5.8          1952PEa (33045) 898
Medium: Pb(NO3)2
-------------------------------------------------------------------------------
Pb++       gl  oth/un 25°C  ->0  U        K1=3.23   B2=5.93   1951MOa (33046) 899
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       sp  NaClO4 20°C 0.10M U        K1=6.81         1987IKa (33091) 900
                                         K(Pb+HL)=3.0
*******************************************************************************
C4H8N2S                 L    Thiosinamine     CAS 109-57-9  (2377)
1-Allylthiourea; CH2:CH.CH2.NH.CS.NH2
-------------------------------------------------------------------------------
```

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	vlt	KCl	25°C	0.10M	U	T H	B2=1.45		1974RGa (33157)	901

45 C: B2=1.08; DH=-33.3 kJ mol-1

****

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
Pb++	oth	NaClO4	25°C	2.0M	U		K1=2.11		1990FTa (33342)	902

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

Pb++	ISE	NaClO4	25°C	0.50M	U	I	K1=2.11		1975SAe (33343)	903
Pb++	EMF	NaClO4	25°C	2.00M	U		K1=2.17	B2=3.69	1970FMa (33344)	904
							B3=4.55			
Pb++	vlt	NaClO4	25°C	2.00M	U		K1=2.08	B2=3.78	1968FPa (33345)	905
							B3=3.70			
							B4=4.43			

****

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
Pb++	vlt	NaClO4	20°C	0.50M	U	T	K1=1.87	B2=4.39	1972SCc (33365)	906
							B3=6.40			

K1(30 C)=2.03, B2(30 C)=4.47, B3(30 C)=6.83

Pb++	vlt	NaNO3	25°C	1.00M	U		B2=11.48		1972TBc (33366)	907
Pb++	vlt	alc/w	20°C	40%	U	T	K1=1.89	B2=4.39	1971SCe (33367)	908
							B3=6.76			

Medium: 40% EtOH, 0.5 M NaClO4. 30 C: K1=2.0, B2=4.47, B3=6.83

****

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
Pb++	gl	NaClO4	25°C	1.00M	U		K1=1.72	B2=2.83	1971SAa (33411)	909
Pb++	gl	diox/w	30°C	50%	U		K1=3.97	B2=6.87	1956IFa (33412)	910

****

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
Pb++	EMF	NaClO4	25°C	1.0M	U		K1=2.03	B2=3.20	1967TGa (33502)	911
							K3=0.2			

Method: quinhydrone electrode

Pb++	EMF	NaClO4	25°C	3.0M	U		K1=2.23	B2=3.23	1966WBa (33503)	912
							B3=3.29			

****

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
Pb++	oth	NaClO4	25°C	2.0M	U		K1=2.12		1990FTa (33582)	913

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

Pb++	EMF	NaClO4	25°C	2.00M	U		K1=2.16	B2=3.32	1978MMg (33583)	914
							B3=4.03			
Pb++	vlt	NaClO4	25°C	2.00M	U		K1=2.10	B2=2.78	1973NPa (33584)	915
							B3=3.57			
Pb++	EMF	NaClO4	25°C	3.0M	U		K1=2.04	B2=2.88	1966WBa (33585)	916
							B3=2.7			

****

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
Pb++	oth	NaClO4	25°C	2.0M	U		K1=2.13		1990FTa (33626)	917

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

Pb++	EMF	NaClO4	25°C	2.00M	U		K1=2.09	B2=3.39	1978MMg (33627)	918
							B3=3.81			
Pb++	vlt	NaClO4	25°C	2.00M	U		K1=2.17	B2=3.00	1973NPa (33628)	919
							B3=3.70			

****

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
Pb++	EMF	NaClO4	25°C	2.00M	U		K1=2.08	B2=3.54	1978MMg (33656)	920
							B3=3.81			

Pb++ vlt NaClO4 25°C 2.00M U K1=2.28 B2=3.15 1973NPa (33657) 921
B3=3.64
****
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
---
Pb++ vlt NaClO4 25°C 1.0M C T H K1=1.90 B2= 2.50 1984PRb (33673) 922
B3=2.30
B4=2.86
Method: polarography. Medium pH 6.1. Also data for 15 C and 10% MeOH/H2O.
DH(K1)=20.5 kJ mol-1, DH(B2)=36.1, DH(B3)=-72.8, DH(B4)=56.6.

Pb++ ISE NaClO4 25°C 1.00M U K1=1.72 B2=2.65 1970SAa (33674) 923
B3=2.66
****
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
---
Pb++ nmr alc/w 25°C 50% C K1=0.08 1980SSa (33740) 924
****
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
---
Pb++ con NaClO4 25°C 3.00M U K1=5.16 1981MTa (33841) 925
B(PbHL)=11.88
****
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
---
Pb++ con NaClO4 25°C 3.00M U K1=5.04 1981MTa (33921) 926
B(PbHL)=11.47

Pb++ vlt NaClO4 25°C 0.40M U K1=4.6 B2=8.8 1979NSa (33922) 927
B3=12.5
B(Pb(OH)L)=11.9
B(Pb(OH)L2)=15.1
B(Pb(OH)2L)=15.5
****
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
-------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M U        K1=9.13   B2=15.29  1969PPd (34058) 928
                                          B(PbHL)=11.97
                                          B(PbH2L2)=26.36
                                          B(PbHL2)=21.91
                                          K(PbLOH+H)=7.8
-------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.15M U        K1=8.42        1955LMa (34059) 929
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M U        K1=4.43   B2=7.97   1964LMa (34100) 930
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       vlt KNO3   30°C  1.0M C        K1=4.74   B2= 7.80  1989SCc (34318) 931
Method: polarography. Medium pH >5.6
*************************************************************************
C4H9N3O2               HL                     CAS 57-00-1  (8275)
Methylguanidoethanoic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C 0.10M C        K1=0.42   B2= 2.38  1983SSf (34420) 932
Method: polarography.
*************************************************************************
C4H10N2O2              HL    EDMA               (2784)
Diaminoethane-N-ethanoic acid; H2N.CH2.CH2.NH.CH2.COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       vlt oth/un 25°C 0.20M U    M   K1=8.23        1970FUa (34593) 933
                                          K(PbL+Cl)=10.00
Medium: Na ethanoate
*************************************************************************
C4H10N2S                L                      CAS 2489-77-2  (2568)
N,N,N'-Trimethylthiocarbamide; (CH3)2N.CS.NH.CH3
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       ISE alc/w  25°C  80%  U  I     K1=0.58   B2=0.90   1976FFa (34633) 934
                                          B3=2.23
                                          B4=3.48
```

Medium: 80% w/w EtOH/H2O, 0.1 M LiClO4. Pb electrode. Data also for 40%

****

C4H10N2S L (6998)

N-(2-Propyl)thiocarbamide; (CH3)2CH.NH.CS.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	ISE	alc/w	25°C	80%	U	I	K1=1.38	B2=2.34	1976FFa (34634)	935
							B3=3.08			
							B4=4.04			

Medium: 80% w/w EtOH/H2O, 0.1 M LiClO4. Pb electrode. Data also for 40%

****

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
Pb++	gl	KNO3	25°C	0.10M	C		K1=13.89	2001KLb (34697)	936
							B(PbH-1L2)=8.7		

B(PbH-1L2) by spectrophotometry.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaCl	37°C	0.15M	U		K1=12.243	1991GFa (34698)	937
							B(PbH-1L)=2.391		
							B(PbH-1L2)=13.285		
							B(Pb3L4)=51.668		

****

C4H10O3 L CAS 3068-00-6 (4257)

Butan-1,2-4-triol; HO.CH2.CH2.CH(OH).CH2(OH)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	oth/un	25°C	1.00M	U	M	K(Pb(OH)3+L)=0.45	1968VIa (34709)	938

Medium: NaOH

****

C4H10O4 L Erythritol CAS 149-32-6 (2706)

1,2,3,4-Tetrahydroxybutane; HO.CH2.CH(OH).CH(OH).CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	NaClO4	25°C	1.00M	U	I	K(Pb(OH)3+L)=1.93	1968VIa (34713)	939

Medium: 1.0 NaOH, K=1.62

****

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
Pb++	vlt	KNO3	25°C	0.10M	U		K1=6.51	B2=8.15	1980AAa (34837)	940

****
C4H11NO L CAS 124-68-5 (948)
2-Amino-2-methylpropan-1-ol; CH3.C(NH2)(CH3).CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	KNO3	25°C	0.5M	C		K1=4.56	B2= 8.75	1998CCc (34851)	941
							B(PbH-1L)=-3.97			

****
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
Pb++	vlt	alc/w	25°C	20%	U	I	B2=9.04		1964MSd (34962)	942
							B3=9.82			

Medium: EtOH, 0.01 M NaClO4. B2=8.70(0%), 9.50(40%), 9.52(60%), 10.0(80%), 12.40(100%); B3=9.00(0%), 11.52(94%), 13.56(100%); B4=0.91(0%)
****
C4H11NO2 L CAS 115-69-5 (949)
2-Amino-2-methyl-1,3-propanediol; HO.CH2.C(NH2)(CH3).CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	KNO3	25°C	0.5M	C		K1=3.86	B2= 7.28	1998CCc (34983)	943
							B(PbH-1L)=-4.07			

****
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
Pb++	gl	KNO3	25°C	0.10M	C		K1=<2.7		1979FHa (35061)	944
							K(Pb(ATP)+L)=2.09			
Pb++	vlt	NaClO4	25°C	2.00M	U		B2=5.22		1975BMb (35062)	945
Pb++	ISE	oth/un	25°C	1.00M	U				1970VIa (35063)	946
							K(Pb(OH)3+L)=0.20			

Medium: 1.0 M NaOH
****
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
Pb++	gl	KNO3	20°C	0.25M	U	I	K1=7.50	B2=14.48	1973MSd (35138)	947

O.25 KNO3, 25% MeOH: K1=7.74, K2=7.28; 25% EtOH, K1=8.24, K2=7.68

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	vlt	KNO3	26°C	0.25M	U		K1=0.85	B2=1.71	1972PMb (35139)	948

B3=1.90

pH 4.4 buffer

****

C4H11OPS2 HL CAS 995-79-9 (4283)

O-Ethyl hydrogen P-ethylphosphonodithioate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	alc/w	?	90%	U		K1=11.1	1971TCa (35207)	949

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
Pb++	vlt	mixed	RT	50%	C		B2=7.38 B3=9.64 B4=10.44	1986HSd (35234)	950

Medium: 50% v/v DMF/H2O. Method: polarography.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	alc/w	?	90%	U		B2=10.2	1971TCa (35235)	951

Medium: 90% EtOH, 0.15 M NaClO4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	alc/w	25°C	90%	U	I	B2=10.53	1967SFb (35236)	952

Medium: 90% EtOH, 0.12 M LiNO3. B2=7.98(50%),8.56(60%),9.04(70%),9.81(80%)

****

C4H11O4P H2L (5867)

n-Butyl phosphoric acid; C4H9.O.PO(OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	M		K1=3.27	1999DSa (35288)	953

****

C4H11PS2 HL CAS 886-54-6 (3591)

Diethylphosphinodithioic acid; (CH3.CH2)2PSSH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	alc/w	?	90%	U		B2=11.7	1971TCa (35296)	954

Medium: 90% EtOH, 0.15 M NaClO4

****

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
Pb++	gl	KNO3	25°C	0.10M	U		K1=5.35 B2=10.4	1977PSb (35381)	955

****

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
Pb++	gl	KNO3	25°C	0.10M	U		K1=5.45 B2=10.2	1977PSb (35491)	956

****

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
Pb++	gl	NaNO3	25°C	0.10M	U		K1=6.10	1986TSa (35508)	957

****

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
Pb++	gl	NaNO3	25°C	0.10M	U		K1=5.58	1986TSa (35548)	958

****

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
Pb++	gl	NaNO3	25°C	0.10M	U		K1=7.56	1985MMa (35801)	959
Pb++	vlt	NaClO4	25°C	0.20M	M	H	K1=7.4	1978KKb (35802)	960

DH1=-35.6 kJ mol-1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KNO3	25°C	0.20M	U		B2=10.39	1974KOd (35803)	961
Pb++	vlt	alc/w	25°C	80%	U	I	K1=10.25 B2=12.33	1969IMa (35804)	962

Medium: 0-93.5% EtOH, 0.1 M LiNO3. 0%, K1=8.50, B2=10.47. 40%, K1=9.41,
B2=11.45, 60%, K1=9.87, B2=11.62. 93.5%, B2=12.34

****

C5H4N4O HL Hypoxanthine CAS 68-94-0 (1174)
6-Hydroxypurine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	25°C	50%	U		K1=5.04	1959CFb (36195)	963

****

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
Pb++	gl	diox/w	25°C	50%	U		K1=6.61	1959CFb (36228)	964

****

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
Pb++	gl	NaClO4	30°C	0.20M	U	T H	K1=2.03		1976SSd (36262)	965

****

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
Pb++	gl	diox/w	25°C	50%	U		K1=8.43	B2=14.16	1970GDa (36795)	966

Medium: 50% dioxan, 0.1 M NaClO4

****

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
Pb++	gl	diox/w	15°C	75%	U	T	K1=7.53	B2=15.41	1963ASa (36819)	967

Medium: 75% dioxan, 0.104 M NaClO4. K1=7.67?(25 C), 6.59(35 C);K2=9.96(25 C)

****

C5H6N2OS HL (4336)
5-Methyl-2-thiouracil (5-methyl-4-hydroxy-2-mercaptopyrimidine);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	oth/un	25°C	0.01M	U	T	K1=4.80	B2=8.12	1970GWa (37215)	968

I=0.006 M. K1(35 C)=4.69, K1(45 C)=4.55; K2(35 C)=3.18, K2(45 C)=3.21

****

C5H6N2OS HL CAS 3581-30-4 (4337)
6-Methyl-2-thiouracil (6-methyl-4-hydroxy-2-mercaptopyrimidine);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	oth/un	26°C	0.01M	U	T	K1=4.69	B2=7.95	1970GWa (37219)	969

I=0.006 M. K1(35 C)=4.75, K1(45 C)=4.53; K2(35 C)=3.55, K2(45 C)=3.38

****

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
Pb++	vlt	KNO3	RT	1.0M	C	M	K1=1.95	B2= 2.00	1983CPd (37366)	970
							B3=3.70			
							B(PbAL)=2.88			
							B(PbAL2)=4.08			
							B(PbA2L)=3.43			

Method: polarography. Medium: 1.0 M KNO3, pH 6.5.

Pb++	vlt	NaClO4	30°C	1.5M	C T H	K1=1.95 B3=3.69	B2= 2.00	1981PBb (37367) 971

Method: polarography. At 40C, K1=2.04, B2=2.30, B3=3.70.
DH(B3)=3.97 kJ mol-1, DS(B3)=83.3 J K-1 mol-1.

Pb++	vlt	NaClO4	30°C	1.5M	C M	K1=2.903 B3=4.607 B(PbAL)=3.10 B(PbA2L)=3.67 B(PbAL2)=3.99	B2= 3.58	1980YVa (37368) 972

Method: polarography. HA is acetylsalicylic acid.

Pb++	gl	oth/un	25°C	0.10M	U	K1=3.3		1960YYa (37369) 973

****

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
Pb++	vlt	KNO3	25°C	1.0M	C M		K1=2.17 B2= 3.30 B3=5.30	1983CPe (37437)	974

Method: polarography. B(PbLA)=3.00, B(PbLA2)=5.35, B(PbL2A)=5.52.
HA is nicotinic acid.

Pb++	vlt	KNO3	27°C	1.0M	C	K1=2.53 B3=5.84	B2= 2.77	1982CPb (37438) 975

Method: polarography. Medium: 1.0 M KNO3, pH 6.5.

Pb++	vlt	KNO3	30°C	0.30M	U	B2=4.08		1967LCb (37439) 976

Pb++	gl	oth/un	25°C	0.10M	U	K1=3.1		1960YYa (37440) 977

****

C5H6O7 H3L (8107)
Carboxymethyltartronic acid;

Pb++	gl	KCl	25°C	0.10M	C	K1=6.04 K(PbL+H)=2.02		1984MMg (37491) 978

****

C5H7NO4S2 H3L CAS 36061-59-3 (1953)
Bis(carboxymethyl)dithiocarbamic acid; (HOOC.CH2)2.N.CSSH

Pb++	EMF	KNO3	22°C	1.00M	U	K1=7.42	B2=13.66	1970TPb (37558) 979

Pb++	dis	KNO3	20°C	0.10M	U	B2=15.5		1967HMc (37559) 980

****

C5H7N3O HL 1-MeCytosine CAS 1122-47-0 (2268)
1-Methyl-4-aminopyrimidin-2-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	nmr	non-aq	25°C	100%	U	M	K(Pb(NO3)2+L)=1.3	1980MCb (37587)	981

Medium: DMSO-d6

****

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
Pb++	gl	alc/w	25°C	50%	U		K1=0.67	1978PBa (37679)	982

****

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
Pb++	vlt	NaClO4	25°C	0.10M	C		K1=4.69 B2= 9.08	1984KCb (38052)	983

Method: polarography. Medium pH 9.2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	24°C	50%	U		K1=5.5	1979ACa (38053)	984
Pb++	vlt	KNO3	30°C	0.70M	U		B2=6.32	1962SSa (38054)	985
Pb++	gl	diox/w	30°C	75%	U		K1=8.60 B2=15.37	1953UFb (38055)	986

****

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
Pb++	EMF	diox/w	25°C	50%	U		K1=3.32	1978SPa (38160)	987

****

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
Pb++	vlt	NaClO4	30°C	1.00M	U		K1=1.60 B2=3.08	1970GPc (38172)	988

****

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

```
Pb++       vlt KNO3   30°C  2.0M C    M   K1=2.30   B2= 3.47  1977BCa (38341) 989
                                          B3=3.90
                                          B(PbAL)=3.57
                                          B(PbA2L)=4.49
                                          B(PbAL2)=4.22
Method: polarography. Medium pH 6.8. K(PbA+L)=1.21, K(PbL+A)=1.27.
H2A is succinic acid.
-------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 1.00M C        K1=2.51   B2=3.77   1977HOa (38342) 990
                                          B(1,1,1)=6.93
                                          B(2,1,2)=12.92
                                          B(1,1,2)=8.72
B(p,q,r): pH+qPb+rL=HpPbqLr
-------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 0.50M U        K1=2.80        1972NAa (38343) 991
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 30°C 2.00M U        K1=2.48   B2=3.45   1968GPb (38344) 992
                                          B3=3.90
-------------------------------------------------------------------------------
Pb++       gl  oth/un 25°C 0.10M U        K1=2.8         1960YYa (38345) 993
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M C        K1=3.59        1975LPa (38383) 994
                                          K(Pb+HL)=2.01
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       gl  oth/un 20°C    ?  U T      K1=3.02   B2=5.62   1984SPa (38396) 995
Temperatures: 30,40. DH(B2)=-94.5 kJ mol-1, DS=-177.3 J K-1 mol-1
*******************************************************************************
C5H8O4S2             H4L                      (4319)
Dimercaptoglutaric acid; HOOC.CH2.C(SH)2.CH2.COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Pb++       sp  NaClO4 20°C 0.01M U        K1=15.88       1973ENa (38398) 996
                                          K(2Pb+L)=25.00
*******************************************************************************
C5H8O7               H2L                     CAS 40120-71-6  (3022)
2,3,4-Trihydroxypentanedioic acid, Trihydroxyglutaric acid; HOOC.(CH(OH))3.COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
```

```
Pb++       EMF oth/un 22°C    ?  U        K1=3.28        1969PDb (38434) 997
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  none   25°C  0.0  U        K1=4.81   B2=8.51   1978HAa (38745) 998
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  NaCl   37°C 0.15M C        K1=6.726  B2=11.527 1985FWa (38786) 999
                                         B(PbHL)=9.854
                                         B(Pb2L3)=20.846
                                         B3=14.379
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M C    M   K1=4.39        2003AHa (39108)1000
                                         K(PbL+A)=3.33
HA is 3-amino-5-mercapto-1,2,4-triazole.
--------------------------------------------------------------------------
Pb++       vlt KNO3   25°C 0.10M U        K1=5.11   B2= 7.91  1996CSa (39109)1001
Method: anodic stripping voltammetry.
--------------------------------------------------------------------------
Pb++       EMF NaClO4 25°C 1.00M C        K1=4.60   B2=6.80   1989BFa (39110)1002
                                         B(PbHL)=11.49
                                         B(PbH2L)=14.36
                                         B(PbHL2)=15.18
                                         B(PbH2L2)=22.20.
Method: Pb/Hg electrode. B(PbH3L2)=26.0, B(PbH4L2)=29.80.
--------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C 0.70M C        K1=4.51   B2= 8.13  1986CSa (39111)1003
Method: differential pulse polarography.
--------------------------------------------------------------------------
Pb++       ISE KNO3   25°C 0.10M U        K1=5.57   B2=7.75   1985DVa (39112)1004
                                         K(PbL+H)=7.65
                                         K(Pb(OH)L+H)=8.25
--------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C 0.10M C        K1=2.13   B2= 3.61  1980SKd (39113)1005
Method: polarography.
--------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C 0.30M U        K1=5.70   B2=8.55   1974KOc (39114)1006
--------------------------------------------------------------------------
```

Pb++ vlt KNO3 30°C 1.0M U K1=4.60 B2=6.22 1964RSe (39115)1007
****
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
---
Pb++ ISE NaClO4 25°C 0.50M C K1=7.60 1985NAa (39272)1008
B(PbHL)=11.23

Pb++ gl KNO3 25°C 0.10M U K1=7.94 1983FSa (39273)1009

Pb++ vlt NaClO4 25°C 0.10M U K1=8.0 B2=11.5 1969VPa (39274)1010

Pb++ cal KNO3 20°C 0.10M U H 1965ANa (39275)1011
DH(K1)=-14.9 kJ mol-1, DS=102.8 J K-1 mol-1

Pb++ gl KNO3 20°C 0.10M U K1=8.02 B2=12.12 1945SKa (39276)1012
K(PbL(OH)2+H=PbLOH)=9.03
****
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
---
Pb++ vlt KNO3 25°C 0.10M U B2=17.2 1991BSe (39334)1013

Pb++ dis oth/un 22°C 0.01M U B2=16.8 1973SSa (39335)1014

Pb++ vlt KCl 25°C 1.00M U B2=17.1 1973SSa (39336)1015
****
C5H9N3S HL (1822)
2-Mercaptohistamine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaClO4 25°C 0.10M U K1=8.66 B2=13.97 1977STc (39610)1016
****
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
---
Pb++ oth KNO3 RT 0.10M C K1=>16 1980MVa (39683)1017
Method: paper electrophesis.
****
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

---
Pb++ gl KCl 22°C 0.10M U K1=6 1960REb (39724)1018
****
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
---
Pb++ gl NaClO4 25°C 3.00M U K1=4.70 B2=8.36 1973CTb (39829)1019
B3=10.12

Pb++ vlt oth/un 25°C 0.60M U 1969LCa (39830)1020
K(Pb+2HL+OH)=10.16
****
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
---
Pb++ dis oth/un 25°C 0.25M U B2=12.5 1982SAa (40162)1021
****
C5H10O2 HL Pivalic acid CAS 75-98-9 (3026)
Trimethylethanoic acid, 2,2-Dimethylpropanoic acid; (CH3)3C.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ nmr NaNO3 25°C 0.40M U K1=2.60 1983NRa (40218)1022
Method: 207Pb nmr.
****
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
---
Pb++ gl diox/w 30°C 50% U K1=4.34 B2=7.91 1956IFa (40243)1023
****
C5H10O5 L D-Xylose CAS 58-86-6 (3607)
D-Xylose;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ cal oth/un 22°C var C H K1=1.60 1999MGa (40363)1024
DH(K1)=-2.2 kJ mol-1, DS(K1)=23 J K-1 mol-1.
****
C5H10O5 L L-Arabinose CAS 5328-37-0 (1616)
L-Arabinose

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ ISE NaClO4 25°C 1.00M C I K1=-0.42 1977EOa (40371)1025

Data also for D-Xylose and D-Ribose

****

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
Pb++	vlt	NaClO4	25°C	1.0M	C		K1=4.57 K(Pb+HL)=0.99 K(Pb+2HL)=1.45 K(Pb+HL+L)=4.52	B2= 7.45	1996MSa (40738)	1026

Method: polarography.

Pb++	vlt	KNO3	30°C	1.0M	C		K1=4.50	B2= 7.90	1989SCc (40739)	1027

Method: polarography. Medium pH >5.6

Pb++	oth	NaClO4	35°C	0.10M	C	M T	K1=5.10	B2=8.40	1986SRb (40740)	1028

Exp. method: paper electrophoresis. Data also for NTA ternary complexes

---

Pb++	vlt	KNO3	30°C	1.0M	U		K1=4.02 B(PbL2(OH))=9.41	B2=5.89	1964RSe (40741)	1029

****

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
Pb++	gl	KNO3	25°C	0.10M	U		K1=4.38	B2=8.62	1964LMa (41113)	1030
Pb++	gl	KNO3	25°C	0.15M	U		K1=4.40		1955LMa (41114)	1031

****

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
Pb++	EMF	oth/un	?	dil	U		K1=9.48		1966TYa (41147)	1032

****

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
Pb++	gl	KCl	25°C	0.10M	M		K1=13.12 B(PbHL)=15.87 B(PbHL2)=26.19	B2=17.7	1987HLa (41191)	1033

****

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
--------------------------------------------------------------------------
Pb++       gl  KNO3   32°C  0.0  U                        1992BKf (41273)1034
                                      K(Pb+H2L=PbL+2H)=-5.68
                                      K(Pb+2H2L=PbL2+4H)=-19.48
Medium: 0.005 M KNO3
--------------------------------------------------------------------------
Pb++       gl  NaCl   37°C 0.15M C        K1=13.06       1983WWa (41274)1035
                                      B(PbHL)=16.28
                                      B(PbH-1L)=7.33
--------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 3.00M C        K1=14.32  B2=19.05  1976CWa (41275)1036
                                      B(PbHL)=17.72
                                      B(PbHL2)=27.98
                                      B(PbH2L2)=34.04
                                      B(PbH-1L2)=7.55
--------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M U        K1=12.37       1964LMa (41276)1037
--------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.15M U        K1=13.0   B2=17.30  1962KRa (41277)1038
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C  1.0M C        K1=4.80   B2= 7.43  1981SBd (41295)1039
                                      B(PbHL)=10.00
                                      B(PbH-1L)=-3.77
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       vlt KNO3   25°C 0.10M U        B2=17.7        1991BSe (41359)1040
Also data for n-Pr(K1=19.7), i-Pr(19.7), n-Bu(21.3), i-Bu(21.4), n-Pe(23.1)
pyrrolidine(17.2), piperidyl(20), cyclo-Hexyl(25),n-Hex(24.8) substd.ligands
--------------------------------------------------------------------------
Pb++       EMF non-aq 25°C 100%  U        B2=14.9        1987USa (41360)1041
Medium: DMF, 0.1 M LiClO4
--------------------------------------------------------------------------
Pb++       ISE non-aq 25°C 100%  U        K1=8.3    B2=15.9   1984LSb (41361)1042
Medium: DMSO, 0.1 M NaClO4; Ag-electrode. In MeOH: K1=8.7, B2=15.4
--------------------------------------------------------------------------
Pb++       dis oth/un 25°C 0.01M U        B2=18.3        1973SSa (41362)1043
--------------------------------------------------------------------------
Pb++       vlt KCl    25°C 1.00M U        B2=17.7        1973SSa (41363)1044
--------------------------------------------------------------------------
Pb++       EMF alc/w  25°C  75%  U        K1=3.85   B2=7.89   1971BSg (41364)1045
```

Medium: 75% EtOH, 0.01 M KNO3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	sp	non-aq	?	100%	U	M			1968SRg (41365)	1046
							K(Pb(HA)2+2HL=PbL2+2H2A)=4.98			

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
Pb++	gl	NaNO3	25°C	0.10M	M		K1=3.01		1999DSa (41423)	1047

****

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
Pb++	EMF	NaCl	25°C	1.00M	C		K1=4.80	B2=6.95	1992BCa (41580)	1048
							B(PbHL)=13.94			
							B(PbH2L)=19.45			
							B(PbHL2)=14.95			
							B(PbH2L2)=23.6			

Method: Pb/Hg amalgam electrode and glass electrode. B(PbH3L2)=33.45, B(PbH4L2)=40.90.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	vlt	NaClO4	30°C	0.10M	C	T H	K1=3.0	B2= 4.74	1981SBf (41581)	1049
							B3=6.36			
							B4=7.57			

Method: polarography. At 40 C, K1=3.0, B2=4.60, B3=6.20, B4=7.57. DH(K1)=0 kJ mol-1, DH(B2)=-24.9, DH(B3)=-28.4, DH(B4)=5.48.

****

C5H12N2S L CAS 105-55-5 (2379)
1,3-Diethylthiourea; C2H5.NH.CS.NH.C2H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	ISE	alc/w	25°C	80%	U	I	K1=1.00	B2=1.18	1976FFa (41624)	1050
							B3=3.11			
							B4=3.90			

Medium: 80% w/w EtOH/H2O, 0.1 M LiClO4. Pb electrode. Data also for 40%

****

C5H12N2S L CAS 1576-32-1 (1518)
N-Butylthiourea; C4H9.NH.CS.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	sp	NaClO4	25°C	1.00M	U		K1=0.66		1979FFa (41632)	1051
Pb++	ISE	alc/w	25°C	80%	U	I	K1=1.04	B2=1.92	1976FFa (41633)	1052

B3=3.15
B4=4.47
B5=4.47
B6=4.90

Medium: 80% w/w EtOH/H2O, 0.1 M LiClO4. Pb electrode. Data also for 40%

****

C5H12O3 L CAS 14697-46-2 (4300)

Pentan-1,2,5-triol; HO.CH2.CH(OH).CH2.CH2.CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	oth/un	25°C	1.00M	U	M	K(Pb(OH)3+L)=0.40	1968VIa (41647)	1053

Medium: NaOH

****

C5H12O3S4 H3L CAS 19872-38-9 (4331)

2,3-Dimercaptopropylthioethanesulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	EMF	KNO3	20°C	0.10M	U		K1=16.25 B2=20.85	1968PRc (41658)	1054

****

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
Pb++	EMF	KNO3	20°C	0.10M	U		K1=16.62 B2=22.09	1968PRc (41672)	1055

****

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
Pb++	EMF	KNO3	20°C	0.10M	U		K1=16.75 B2=24.64	1968PRc (41703)	1056

****

C5H14NO3P H2L CAS 72696-97-0 (1990)

Diethylaminomethylphosphonic acid; (C2H5)2N.CH2.PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=7.45	1997CCb (41833)	1057
							B(PbHL)=14.81		
							B(PbH-1L)=-0.49		

****

C6HOCl5 HL CAS 87-86-5 (506)

Pentachlorophenol; HO.C6.Cl5

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

Pb++ sp none 25°C 0.0 C K1=2.8 1997DFc (42026)1058
Self medium. K1 calculated for I=0.
****
C6H3OCl3 HL CAS 88-06-2 (508)
2,4,6-Trichlorophenol; HO.C6H2(Cl)3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ ISE none 25°C 0.0 M K1=3.0 1997DFc (42163)1059
Method: Cd ion selective electrode. Self medium. K1 calculated for I=0.
By spectrophotometry, K1=3.1.
****
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
---
Pb++ gl diox/w 25°C 50% U K1=4.59 1961SHa (42178)1060
Medium: 50% dioxan, 0.1 M KNO3
****
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
---
Pb++ gl KCl 30°C 25% M TIH K1=5.15 B2= 8.27 1991GDe (42309)1061
Medium: 35% Dioxan/H2O, 0.1 M NaClO4. Other solvents and backgrounf concs.
****
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
---
Pb++ vlt KNO3 25°C 0.50M U K1=4.49 K2=7.58 1998CLa (42579)1062
B3=9.59
K(Pb+OH+2L)=11.46
Method:differential pulse polarography.

Pb++ gl NaNO3 25°C 0.50M U I K1=4.19 B2= 7.19 1978KCd (42580)1063
In 1.0 M NaClO4, K1=4.57, K2=3.36.

Pb++ vlt NaClO4 25°C 0.10M U K1=4.48 B2=7.86 1974RKa (42581)1064
B3=8.92

Pb++ gl NaNO3 20°C 0.10M U K1=4.58 B2=7.92 1960ANb (42582)1065

Pb++ gl oth/un 25°C 0.0 U K1=5.07 B2=8.57 1957LUa (42583)1066

Pb++ gl KNO3 25°C 0.10M U K1=4.82 B2=7.88 1957SYa (42584)1067
****

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
Pb++	vlt	KNO3	RT	1.0M	C		K1=1.24	B2= 2.61	1983CPd (42680)	1068

Method: polarography. Medium: 1.0 M KNO3, pH 6.5.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	vlt	KNO3	25°C	1.0M	C		K1=1.24	B2= 2.32	1983CPe (42681)	1069

Method: polarography.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	vlt	NaClO4	30°C	1.0M	C		K1=1.24	B2= 2.61	1978BPc (42682)	1070

Method: polarography.

****

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
Pb++	gl	NaNO3	25°C	0.10M	M		K1=2.36	1999DSa (43249)	1071

****

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
Pb++	gl	KNO3	35°C	0.15M	U	T H	K1=2.97	1980SKb (43356)	1072

Temperature range is 25-45C. At 35C, DH1=-6.36 kJ mol-1;
DS1=36.32 J mol-1 K-1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	35°C	50%	U		K1=3.56	1980SKb (43357)	1073

****

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
Pb++	gl	diox/w	30°C	50%	U		K1=9.67	B2=16.10	1957CWa (44097)	1074

****

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
Pb++	gl	NaClO4	25°C	1.00M	U		K1=12.24	B2=19.23	1981KMa (44479)	1075
Pb++	gl	NaClO4	25°C	1.0M	U		K1=11.95	B2=18.28	1960NAf (44480)	1076
Pb++	gl	oth/un	25°C	0.0	U		K1=14.77		1959NAa (44481)	1077

****

C6H7N L Picoline CAS 109-06-8 (320)
2-Methylpyridine; C5H4N.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	NaNO3	25°C	2.00M	U	M	K1=1.50 B(PbLA)=3.24 B(PbLA2)=3.30	1985KSd (44612)	1078

H2A=maleic acid

****

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
Pb++	vlt	NaNO3	25°C	2.00M	U	M	K1=0.90 B2=1.85 B(PbLA)=3.40 B(PbL2A)=3.70 B(PbLA2)=3.42	1985KSd (44704)	1079

H2A=maleic acid

****

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
Pb++	vlt	NaNO3	25°C	2.00M	U	M	K1=1.56 B(PbLA)=3.00 B(PbLA2)=3.30	1985KSd (44830)	1080

H2A=maleic acid

****

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
Pb++	gl	diox/w	25°C	50%	U		K1=6.29 B2=10.34	1952FCa (44936)	1081

****

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
Pb++	gl	KNO3	37°C	0.15M	C		K1=8.44 B2=13.57 K(PbL+H)=2.3	1979SPd (45043)	1082

****

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

```
-------------------------------------------------------------------------------
Pb++       gl  diox/w 25°C  50%  U        K1=8.41   B2=15.37  1952FCa (45088)1083
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.10M M        K1=2.84        1999DSa (45233)1084
*******************************************************************************
C6H8N2O3S             HL                      CAS 20349-92-2  (4399)
d-Tetranorbiotin;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Pb++       gl  oth/un 26°C 0.01M U T      K1=5.01   B2=8.92   1970GWa (45407)1085
I=0.006. K1(35 C)=5.01, K1(45 C)=4.81, K2(35 C)=4.54, K2(45 C)=4.18
*******************************************************************************
C6H8O4Se             H2L                        (3691)
cis-Tetrahydroselenophene-2,5-dicarboxylic acid; C4H6Se(COOH)2
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.10M U        K1=3.6    B2=6.80   1968SNa (45528)1086
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 1.00M C        K1=3.17   B2=4.70   1979AOa (45571)1087
                                          B(0,2,2,)=8.68
                                          B(1,1,1)=7.91
                                          B(2,1,2)=14.70
                                          B(2,1,1)=11.59
B(1,1,2)=9.96;B(3,1,2)=18.80; B(p,q,r): pH+qPb+rL=Hp(Pb)qLr
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       vlt KNO3   25°C 0.10M U                        1999KSb (46211)1088
                                        K1eff=6.0
Method: ion transfer voltammetry at water/nitrobenzene interface.
Medium: 0.10 M LiNO3, pH 5.8
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 30°C  1.0M C        K1=3.86   B2= 5.08  1988GMc (46212)1089
Method: polarography.
-------------------------------------------------------------------------------
```

```
Pb++       vlt KNO3   25°C  1.0M C        K1=4.285  B2= 5.56  1985DVb (46213)1090
Method: polarography.
-------------------------------------------------------------------------------
Pb++       vlt NaNO3  25°C 2.00M U    M   K1=3.4         1985KSd (46214)1091
                                         B(PbLpy)=3.9
-------------------------------------------------------------------------------
Pb++       vlt NaNO3  25°C  2.0M U    M   K1=3.4         1985SSe (46215)1092
                                         B(PbL(imidazole))=8.0
-------------------------------------------------------------------------------
Pb++       oth oth/un 20°C 3.00M U        K1=3.03   B2=3.95   1979FEa (46216)1093
Method: densimetry
-------------------------------------------------------------------------------
Pb++       oth NaClO4 20°C  3.0M U        K1=3.06        1979FEb (46217)1094
Method: densitometry
-------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 1.00M C        K1=4.43   B2=5.92   1978EOa (46218)1095
                                         B(PbHL)=8.16
                                         B(PbH2L)=10.97
                                         B(2,-1,2)=4.64
                                         B(2,-2,2)=-2.81
Constants also for additional species
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.10M U    M   K1=5.98        1974RMa (46219)1096
-------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 2.00M U        K1=4.08   B2=6.06   1973BVa (46220)1097
                                         B(PbHL)=8.15
                                         B(PbH2L)=10.85
                                         B(PbH2L2)=14.95
                                         B(PbH4L2)=21.68
-------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 2.00M U                       1973BVb (46221)1098
                                         K(Pb(II)+L=Pb(II)L+OH)=-0.94
                                         K(Pb(II)+2L=Pb(II)L2+OH)=-0.47
                                         K(2Pb(II)+L=Pb(II)2L+3OH)=-0.7
Pb(II) = plumbite ion
-------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C  3.0M U        K1=4.34   B2=6.08   1963DGc (46222)1099
                                         B3=6.97
-------------------------------------------------------------------------------
Pb++       sol oth/un 20°C    ?  U T H    K1=3.00        1959DMb (46223)1100
DH(K1)=-23.4 kJ mol-1, DS=-21. K1=2.86(30 C)
-------------------------------------------------------------------------------
Pb++       sol oth/un 25°C    ?  U                       1957PAb (46224)1101
                                         K(Pb3L2(s)+L+3OH=3PbH-1L)=11.4
-------------------------------------------------------------------------------
Pb++       gl  KNO3     ?  0.30M U                       1957PPa (46225)1102
                                         K(Pb+L=PbH-1L+H)=-1.1
-------------------------------------------------------------------------------
Pb++       sol oth/un 35°C    ?  U                       1957PPa (46226)1103
                                         K(PbH-1L+H)=7.1
```

```
                                        K(PbH-1LOH+H)=9.5
-------------------------------------------------------------------------------
Pb++       oth oth/un 25°C 0.05M U                      1953SUb (46227)1104
                                        K(Pb+H3L=PbL+2H)=-2.11
-------------------------------------------------------------------------------
Pb++       EMF oth/un 25°C    ?  U                      1952SCa (46228)1105
                                        K(Pb+HL)=5.72
-------------------------------------------------------------------------------
Pb++       ISE oth/un 30°C  ->0  U        K1=6.50       1942KEa (46229)1106
Alternative method: K1=5.74
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       vlt KCl    25°C  1.0M U        K1=10.09       1990TKa (46959)1107
-------------------------------------------------------------------------------
Pb++       gl  KCl    25°C  1.0M U        K1=9.36   B2=11.74  1990TKa (46960)1108
                                        B3=13.49
-------------------------------------------------------------------------------
Pb++       vlt KCl    25°C 0.30M U        K1=12.35       1988HPa (46961)1109
-------------------------------------------------------------------------------
Pb++       oth NaClO4 35°C 0.10M C    M   K1=11.21       1986SRb (46962)1110
Exp. method: paper electrophoresis.   Data also for NTA ternary complexes
-------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 0.50M C        K1=10.02       1985NAa (46963)1111
                                        B(PbHL)=12.30
-------------------------------------------------------------------------------
Pb++       dis NaClO4 35°C 0.10M U    M   K1=11.21       1985SRa (46964)1112
                                        K=(Pb(NTA)+Leu)=3.43
-------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M U      T K1=11.34       1983FSa (46965)1113
-------------------------------------------------------------------------------
Pb++       gl  KNO3   20°C 0.10M C      R K1=11.4   B2=12.8   1982ANa (46966)1114
                                        K(Pb+HL)=4.0
IUPAC evaluation. Only K1 recommended, other tentative
-------------------------------------------------------------------------------
Pb++       ISE KNO3   25°C 0.10M U      T K1=11.56       1980NWa (46967)1115
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.10M U    M T K1=11.31       1974RMa (46968)1116
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.10M U    M                  1974RMb (46969)1117
                                        K(Pb+HL)=3.93
                                        K(PbL+HPO4)=9.15
                                        K(Pb+L+HPO4)=13.08
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.10M U    M                  1974RMb (46970)1118
                                        K(Pb+HL)=3.93
                                        K(PbHL+Fulvate)=5.09
```

```
                                        K(Pb+HL+Fulvate)=9.02
-------------------------------------------------------------------------------
Pb++       sp  NaClO4 20°C 0.10M U  I     K1=11.83       1970KBa (46971)1119
                                        K(Pb+HL)=3.99
I=1.0: K1=10.64, K(Pb+HL)=3.60
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C 0.10M U        K1=12.40       1969VPa (46972)1120
-------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.06M U    M                  1968HAa (46973)1121
                                        K(PbL+Gly)=1.03
                                        K(PbL+A)=1.55
A=ethylvalinate
-------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.08M U    M                  1968HAa (46974)1122
                                        K(PbL+A)=1.55
                                        K(PbL+Gly)=1.93
A=ethylvalinate
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.10M U    M                  1968ICa (46975)1123
                                        K(PbL+Arg)=1.58
                                        K(PbL+Ser)=1.15
-------------------------------------------------------------------------------
Pb++       nmr oth/un 28°C 0.60M U    M                  1967MEa (46976)1124
                                        K(PbL+Zn=Pb+ZnL)=0.86
-------------------------------------------------------------------------------
Pb++       dis NaClO4 20°C 0.10M U      T K1=11.47       1963STc (46977)1125
-------------------------------------------------------------------------------
Pb++       vlt KNO3   20°C 0.10M U      T K1=11.39       1956SGa (46978)1126
-------------------------------------------------------------------------------
Pb++       vlt KNO3   20°C 0.10M U      T K1=11.39       1955SAa (46979)1127
-------------------------------------------------------------------------------
Pb++       gl  KCl    20°C 0.10M U        K1=11.8        1951SFa (46980)1128
-------------------------------------------------------------------------------
Pb++       vlt KCl      ?  0.20M U        K1=10.68       1950KKa (46981)1129
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       EMF NaCl   25°C 1.00M C  I     K1=4.89   B2=6.61   1992BCa (47594)1130
                                        B(PbHL)=10.45
                                        B(PbH2L)=15.42
                                        B(PbHL2)=14.06
                                        B(PbH2L2)=20.97
Method:Pb/Hg amalgam and glass electrodes. B(PbH3L2)=26.66, B(PbH4L2)=32.33
In 1 M NaClO4:K1=6.22, B2=8.01, B(PbHL)=10.66, B(PbH2L)=16.30, B(PbHL2)=15.6
-------------------------------------------------------------------------------
Pb++       nmr NaNO3  25°C 0.40M U                      1983NRa (47595)1131
                                        K(Pb+HL)=1.04
```

Method: 207Pb nmr.

Pb++ gl KNO3 25°C 0.10M C T K1=5.95 B2=10.11 1976PSb (47596)1132
B(PbHL2)=17.13
B(PbH2L2)=23.39

Pb++ gl KNO3 25°C 0.10M C K1=5.93 B2=10.10 1976PSb (47597)1133
B(PbHL2)=17.17
B(Pb(HL)2)=23.35

Ligand: D-His

Pb++ gl NaClO4 25°C 3.00M U T K1=6.90 B2=9.81 1973CTb (47598)1134

Pb++ gl KNO3 37°C 0.15M U T K1=5.96 B2=8.96 1967PSd (47599)1135

Pb++ EMF oth/un 25°C ? U K1=6.36 1966TAa (47600)1136

Pb++ gl KNO3 25°C 0.15M U K1=6.84 1955LMa (47601)1137

****

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
Pb++	gl	NaClO4	25°C	0.10M	U		K1=10.27	1982TSb	(47642)1138

****

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
Pb++	gl	NaClO4	25°C	0.10M	U		K1=3.79	1979POa	(47661)1139
							B(PbHL)=7.82		

Also data for 50% v/v dioxan/H2O

****

C6H10N2 L Tri-Me-Pyrazole CAS 822-90-2 (370)
3,4,5-Trimethyl-1,2-diazole; C4HN2(CH3)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	alc/w	25°C	50%	U		K1=0.31	1978PBa	(47689)1140

****

C6H10N2O4 H2L CAS 96705-91-8 (3103)
Piperazine-2,5-dicarboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KCl	22°C	0.10M	U		K1=6.4	1964PCa	(47728)1141

****

C6H10N2O4 H2L (3104)

Piperazine-2,6-dicarboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	KCl	22°C	0.10M	U		K1=6.8		1964PCa (47738)	1142

****

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
Pb++	gl	KCl	22°C	0.10M	U		K1=7.3		1964PCa (47749)	1143

****

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
Pb++	gl	KNO3	25°C	0.10M	C	M	K1=5.90		2003AHa (47850)	1144
							K(PbL+A)=3.40			

HA is 3-amino-5-mercapto-1,2,4-triazole.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	M	M	K1=5.89		1996AEa (47851)	1145

Data for ternary complexes with dipicolinic acid

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	vlt	KNO3	25°C	0.10M	U	T H	K1=8.70	B2=10.82	1992AZa (47852)	1146
Pb++	gl	KCl	20°C	0.10M	U		K1=8.40	B2=10.64	1955SAa (47853)	1147

****

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
Pb++	gl	diox/w	25°C	50%	C		K1=3.42		1978SPa (47976)	1148

****

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
Pb++	vlt	KNO3	25°C	1.5M	C	M	K1=2.32	B2= 2.99	1986GVa (48080)	1149
							K3=0.54			
							K(PbL+en)=3.38			
							K(PbL2+en)=3.03			
							K(PbL(en)+en)=2.58			

Method: polarography.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	ISE	NaClO4	25°C	1.00M	C		K1=2.47	B2=3.77	1977HOa (48081)	1150
							B(1,1,1)=6.99			

```
                                        B(2,1,2)=13.05
                                        B(1,1,2)=8.76
B(p,q,r): pH+qPb+rL=HpPbqLr
--------------------------------------------------------------------------------
Pb++       vlt NaClO4 30°C 2.00M U       K1=2.38   B2=3.20   1968GPb (48082)1151
                                        B3=3.69
--------------------------------------------------------------------------------
Pb++       gl  oth/un 25°C 0.10M U       K1=2.8         1960YYa (48083)1152
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M C       K1=3.12        1975LPa (48127)1153
                                        K(Pb+HL)=1.8
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M C       K1=2.57        1975LPa (48189)1154
                                        K(Pb+HL)=1.82
--------------------------------------------------------------------------------
Pb++       vlt KNO3   30°C 1.20M U T     K1=2.09   B2=2.28   1972RGb (48190)1155
                                        B3=3.29
K1(40 C)=1.90, K1(50 C)=1.89, B2(40 C)=2.25, B2(50 C)=2.25, B3(40 C)=3.27,
B3(50 C)=3.25
--------------------------------------------------------------------------------
Pb++       vlt mixed  30°C  20%  U  I    K1=2.18   B2=2.72   1972RGb (48191)1156
                                        B3=3.47
Medium: 20% HCON(CH3)2, 1.2 M KNO3. In 20% (CH3)2SO: K1=2.30, B2=2.69,
B3=3.44
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.10M U       K1=2.7         1968SKd (48192)1157
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.50M C       K1=3.62   B2=6.30   1981NAd (48247)1158
--------------------------------------------------------------------------------
Pb++       oth oth/un 25°C 0.10M U       K1=3.8         1964PCa (48248)1159
********************************************************************************
C6H10O4S2            H4L                    CAS 5139-01-5  (4372)
2,5-Dimercaptoadipic acid; HOOC.CH(SH)CH2.CH2.CH(SH).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
```

```
--------------------------------------------------------------------------------
Pb++       sp  oth/un   ?     ?  U        K1=14.15       1973ENa (48255)1160
                                          B(Pb2L)=23.84
********************************************************************************
C6H10O4S2             H2L                      CAS 1119-62-6  (3697)
3,3'-Di(thiopropanoic acid); HOOC.CH2.CH2.S.S.CH2.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       vlt KNO3   30°C  1.0M C        K1=1.65   B2= 2.87  1983SGf (48269)1161
                                          B3=3.17
                                          B4=5.06
Method: polarography.
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M C        K1=2.80        1975LPa (48284)1162
                                          K(Pb+HL)=1.7
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M C        K1=2.58        1975LPa (48295)1163
                                          K(Pb+HL)=1.95
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M C        K1=2.94        1975LPa (48306)1164
                                          K(Pb+HL)=2.3
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M C        K1=2.66        1975LPa (48315)1165
                                          K(Pb+HL)=1.73
********************************************************************************
C6H10O7                HL    Galacturonic     CAS 685-73-4  (290)
D-Galacturonic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
```

```
--------------------------------------------------------------------------------
Pb++       cal oth/un 22°C  var  C   H    K1=1.18        1999MGa (48393)1166
DH(K1)=-4.6 kJ mol-1, DS(K1)=7.1 J K-1 mol-1
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 1.00M U        K1=2.50        1990DGb (48394)1167
                                          B3=6.30
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 1.00M C        K1=2.00        1977MCa (48395)1168
********************************************************************************
C6H10O7                HL    Glucuronic acid  CAS 6556-12-3  (599)
D-Glucuronic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 1.00M C        K1=1.62        1977MCa (48422)1169
********************************************************************************
C6H10O8              H2L    Mucic acid       CAS 526-99-8  (3650)
2,3,4,5-Tetrahydroxyhexanedioic acid, Galactaric acid; HOOC.(CHOH)4.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.05M C        K1=4.42   B2= 8.56  2002SFa (48439)1170
                                          B(PbH-1L)=-4.40
                                          B(PbH-2L)=-12.79
                                          B(PbH-1L2)=-0.07
                                          B(PbH-2L2)=-8.48
********************************************************************************
C6H11NO4             H2L    Aminoadipic      CAS 542-32-5  (1259)
2-Aminohexanedioic acid; HOOC.CH2.CH2.CH2.CH(NH2).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C  1.0M C        K1=5.12   B2=8.49   1982BMb (48582)1171
                                          B(PbHL)=12.46
                                          B(PbH-1L)=-3.53
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  KNO3   20°C 0.10M U        K1=17.03       1955SAa (48614)1172
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 0.50M C        K1=8.75        1985NAa (48773)1173
                                          B(PbHL)=11.51
```

```
--------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M U        K1=9.45        1983FSa (48774)1174
--------------------------------------------------------------------------------
Pb++       sp  NaClO4 20°C 0.10M U        K1=9.48        1978KIb (48775)1175
--------------------------------------------------------------------------------
Pb++       vlt NaNO3  25°C 0.30M U        K1=9.10        1974KNc (48776)1176
--------------------------------------------------------------------------------
Pb++       oth KNO3   20°C 0.10M U        K1=10.2   B2=13.20  1965JMa (48777)1177
Method: electrophoresis
--------------------------------------------------------------------------------
Pb++       vlt KNO3   25°C 0.10M U        K1=9.51        1965VFa (48778)1178
--------------------------------------------------------------------------------
Pb++       gl  KNO3   20°C 0.10M U        K1=9.41        1955SAa (48779)1179
                                         K(PbLOH+H)=8.25
--------------------------------------------------------------------------------
Pb++       gl  KCl    30°C 0.10M U        K1=9.45   B2=13.62  1952CCa (48780)1180
********************************************************************************
C6H11NO5              H2L                          (7174)
N-Carboxymethylthreonine; HOOCCH2NHCH(CH(OH)CH3)COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M C        K1=8.00        2001MTb (48825)1181
                                         B(PbHL)=10.21
                                         B(PbH-1L)=-1.12
********************************************************************************
C6H11NS2               L                       CAS 98-99-7  (3108)
Piperidine-1-carbodithioic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       dis oth/un 25°C 0.01M U        B2=16.9        1973SSa (48856)1182
--------------------------------------------------------------------------------
Pb++       vlt KCl    25°C 1.00M U        B2=16.8        1973SSa (48857)1183
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 3.00M C T H    K1=3.97        1976CWb (48983)1184
                                         B(PbHL)=10.62
                                         B(PbH-1L)=-3.40
DH(K1)=-15 kJ mol-1, DH(PbHL)=-27.5, DH(PbH-1L)=22, DS1=25.5, DS(PbHL)=111
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 3.00M U        K1=3.767       1975CMa (48984)1185
                                         B(PbHL)=10.403
                                         B(PbH-1L)=-3.761
--------------------------------------------------------------------------------
Pb++       nmr oth/un 25°C 0.80M U        K1=3.00        1972RLb (48985)1186
```

K(Pb+HL)=1.44

Medium: 0.8, 0.2 Pb(NO3)2

Pb++ gl none 25°C 0.0 U K1=3.02 B2=5.75 1955EMa (48986)1187

****

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
Pb++	gl	KNO3	25°C	0.10M	U		K1=10.66	1979GMa (49261)	1188
Pb++	vlt	NaClO4	25°C	0.30M	U		K1=10.43	1974KOc (49262)	1189
Pb++	gl	NaNO3	25°C	0.10M	U		K1=11.71 B(PbHL)=15.60 B(PbH-1L)=12.27 B(Pb2L)=15.02	1974SJa (49263)	1190
Pb++	vlt	NaClO4	25°C	0.20M	U		K1=11.2 B(PbL(OH))=13.6 B(PbL(OH)2)=15.2	1973NHb (49264)	1191

****

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
Pb++	gl	KCl	20°C	0.10M	U		K1=12.22 B2=15.12	1955SAa (49306)	1192

****

C6H12O5S HL (691)

1-Thio-beta-D-glucopyranose;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.15M	M		K1=6.03 B2=11.46 B3=15.08	1987GFa (49527)	1193

****

C6H12O6 L D-Galactose CAS 59-23-4 (1559)

D-Galactose

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	cal	oth/un	22°C	var	C	H	K1=1.30	1999MGa (49568)	1194

DH(K1)=-2.4 kJ mol-1, DS(K1)=17 J K-1 mol-1.

****

C6H12O6 L D-Glucose CAS 492-62-6 (1560)

D-Glucose

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

---

Pb++ cal oth/un 22°C var C H K1=1.08 1999MGa (49593)1195
DH(K1)=-7.8 kJ mol-1, DS(K1)=-5.5 J K-1 mol-1.

****

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
Pb++	gl	NaNO3	25°C	0.10M	C		K1=2.49		1996ESa (49747)	1196
							B(PbH-2L)=-11.78			
							B(Pb2H-3L2)=-10.66			
Pb++	EMF	NaClO4	25°C	1.00M	C		K(Pb(OH)3+L)=3.20		1978CVa (49748)	1197
							K(2Pb(OH)3+L-H)=5.45			
							K(2Pb(OH)3+2L-2H)=6.55			
Pb++	gl	NaClO4	25°C	1.0M	U		K1=2.13	B2=3.35	1978CVb (49749)	1198
Pb++	vlt	oth/un	25°C	0.10M	U		K1=2.6		1956PJa (49750)	1199

****

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
Pb++	gl	KNO3	25°C	0.10M	U	I	K1=5.07		1990RAb (50093)	1200
							B(PbH-1L)= -3.64			

Data also for 10% w/w EtOH/H2O (B1=5.21; B(PbH-1L)=-3.63) and 25% EtOH/H2O (5.36; -3.54).

Pb++	dis	NaClO4	35°C	0.10M	U	M	K1=5.20	B2=8.70	1985SRa (50094)	1201
							K=(Pb(NTA)+Leu)=3.43			

Method - paper electrophoresis

Pb++	nmr	KNO3	34°C	0.10M	U	M			1983SFa (50095)	1202
							K(Pb(ATP)+L)=2.7			

****

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
Pb++	vlt	NaClO4	20°C	0.10M	C	T H	K1=4.0	B2= 7.27	1984SDb (50189)	1203

Method: polarography. Also data for 30 C. Medium pH 4.0. DH(K1)=6.4 kJ mol-1, DS(K1)=55.2 J K-1 mol-1; DH(B2)=17.9, DS(B2)=122.

****

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
Pb++	gl	KNO3	25°C	0.50M	U		K1=1.75	1985WTa (50279)	1204

****

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
Pb++	gl	NaClO4	30°C	0.50M	U		K1=6.70 B2=10.20	1975KKd (50395)	1205
Pb++	vlt	NaClO4	25°C	0.20M	U		K1=7.5 B2=10.2 B3=11.7 B(PbL(OH))=13.0 B(PbL2(OH))=14.2 B(PbL(OH)2)=17.2 B(PbL2(OH)2)=18.0, B(PbL(OH)3)19.8	1971NTa (50396)	1206
Pb++	oth	KNO3	20°C	0.10M	U		K1=7.5	1965JMa (50397)	1207

Method: paper electrophoresis

****

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
Pb++	gl	KNO3	25°C	0.10M	C	M	K1=4.25 K(PbL+A)=3.25	2003AHa (50505)	1208

HA is 3-amino-5-mercapto-1,2,4-triazole.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	30°C	0.10M	U	M	K1=3.28 K(Pb(phen)+L)=3.91	1987TGb (50506)	1209
Pb++	gl	KNO3	30°C	0.10M	U	M	K1=6.21 K(Pb(bpy)+L)=5.68	1985TGa (50507)	1210
Pb++	vlt	NaClO4	30°C	0.20M	U		K1=6.72 B2=8.36 B(PbL(OH))=11.2 B(PbL2(OH))=13.1 B(Pb+2OH+L)=15.4	1978KJb (50508)	1211

****

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
Pb++	gl	NaClO4	25°C	0.10M	U		K1=4.87 B2= 8.22 B(PbH-1L)=-3.03	2000KAa (50534)	1212

```
Pb++       gl  NaClO4 25°C 1.00M C    M   K1=5.08   B2=9.53   1991DGa (50535)1213
                                         B(PbH-1L2)=1.28
                                         B(PbH-2L2)=-6.84
                                         B(PbH-3L2)=-16.34
                                         B(PbAL)=7.69
HA=D-galacturonic acid.
-------------------------------------------------------------------------------
Pb++       gl  KNO3   30°C 0.10M U        K1=5.0    B2=9.40   1966MSa (50536)1214
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       vlt KNO3   37°C 0.15M C        K1=3.33   B2= 5.43  1995DKa (50584)1215
                                         B3=8.51
Method: polarography. Medium pH 6.0.
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C 0.50M C        K1=3.60   B2= 4.98  1986RVa (50643)1216
                                         B3=7.04
Method: polarography.
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.10M U        K1=5.17        1986TSa (50714)1217
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 30°C 0.10M C T H                1983SDb (50829)1218
                                         K(Pb+HL)=1.95
                                         K(Pb+2HL)=3.48
                                         K(Pb+3HL)=5.94
Method: polarography. Medium pH 4.0. At 40 C, K(Pb+HL)=1.90,
K(Pb+2HL)=3.40, K(Tl+3HL)=5.91. DH(Pb+HL)=-14.1, DH(Pb+2HL)=-10.5
*******************************************************************************
C6H14N2S                L                   (5635)
1-Thia-4,7-diazacyclononane;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
```

```
--------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M C        K1=6.90        1992WLb (50890)1219
--------------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.10M U        K1=6.76        1987HDa (50891)1220
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  oth/un 25°C    ?  U T      K1=4.06   B2=7.42   1960PEd (51016)1221
17 C: K1=4.65, K2=4.03; 40 C: 3.89, 3.19
********************************************************************************
C6H14O4                L                     CAS 112-27-6  (5663)
2,2'-(1,2-Ethanediylbis(oxy))bisethanol;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       cal alc/w  25°C 100%  U   H    K1=4.04        1985BUa (51056)1222
Medium: MeOH. DH(K1)= -2.9 kJ mol-1
********************************************************************************
C6H14O6                L    D-Dulcitol       CAS 608-66-2  (3663)
D-Galactitol;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       ISE oth/un 25°C 1.00M U  I                    1968VIa (51063)1223
                                          K(Pb(OH)3+L)=2.45
Medium: 1.0 M NaOH. In 0.9 M NaClO4, 0.1 M NaOH, K(Pb(OH)3+L)=2.96
********************************************************************************
C6H14O6                L    D-Mannitol       CAS 69-65-8  (3664)
D-Mannitol;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       ISE oth/un 25°C 1.00M U                       1968VIa (51088)1224
                                          K(Pb(OH)3+L)=2.25
Medium: 1.0 M NaOH. In 0.9 M NaClO4, 0.1 M NaOH, K=2.78
********************************************************************************
C6H14O6                L    Glucitol         CAS 50-70-4  (2878)
D-Sorbitol;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       ISE oth/un 25°C 1.00M U                       1968VIa (51108)1225
                                          K(Pb(OH)3+L)=2.88
Medium:1.0 M NaOH. In 0.9 M NaClO4, 0.1 M NaOH, K=3.42
********************************************************************************
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
-------------------------------------------------------------------------------
Pb++       ISE non-aq 25°C 100%  U        K1=0.38   B2=0.56   1986MMb (51139)1226
Medium: acetone, Bu4NClO4
*******************************************************************************
C6H15NO3                     Triethanolamine  CAS 102-71-6  (447)
Tris-(2-hydroxyethyl)amine;                                                  L
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.10M U        K1=3.39   B2=5.86   1984HNa (51302)1227
                                        K(PbL+2OH)=13.05
                                        K(2PbL+OH)=8.89
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.20M M   H    K1=10.8        1978KKb (51412)1228
DH1=-34.3 kJ mol-1
*******************************************************************************
C6H15O2PS2             HL                       (2059)
O,O'-Dipropyl dithiophosphoric acid; (C3H7O)2P(S)SH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Pb++       vlt mixed   RT   50%  C                        1986HSd (51490)1229
                                        B3=9.71
                                        B4=10.86
Medium: 50% v/v DMF/H2O. Method: polarography.
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       gl  KCl    37°C 0.20M U T      K1=6.46        1991LSa (51539)1230
                                        B(Pb2L)=11.85
                                        B(PbHL)=13.31
In 0.1 M But4NBr, 25 C: B1=10.57, B(PbHL)=16.92, B(Pb2L)=18.48,
B(Pb3L)=21.34
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       vlt alc/w    ?   90%  U        B2=11.8        1972TCa (51556)1231
```

Medium: 90% EtOH, 0.15 M NaClO4

****

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
Pb++	gl	NaNO3	25°C	0.10M	U		K1=6.12	1986TSa	(51689)1232

****

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
Pb++	gl	NaClO4	25°C	0.10M	C		K1=1.39	1992LBa	(51710)1233

****

C6H16N2S L (6464)

5-Thia-2,8-diazanonane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=5.30	1992WLb	(51740)1234

****

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
Pb++	gl	NaClO4	25°C	0.10M	U		K1=5.78	1977ASg	(51761)1235
							B(PbHL)=13.57		

****

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
Pb++	gl	NaClO4	20°C	0.10M	U			1991WBa	(51902)1236
							B(PbHL)=15.82		

****

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
Pb++	vlt	KNO3	25°C	0.10M	U		K1=10.18	1985ABa	(52120)1237
Pb++	gl	NaNO3	25°C	0.10M	U		K1=10.35	1985MMa	(52121)1238
Pb++	gl	KNO3	25°C	1.00M	C		K1=10.36	1982ABc	(52122)1239
							B(PbHL)=16.28		

```
--------------------------------------------------------------------------------
Pb++       gl  diox/w 25°C  50%  U        K1=10.35       1979LPa (52123)1240
                                         K(Pb+HL)=6.07
In 0.1 M KNO3, aq. soln.:  K1=10.50; K(Pb+HL)=5.94
--------------------------------------------------------------------------------
Pb++       gl  diox/w 25°C  50%  C        K1=10.35  B2=16.29  1979MPe (52124)1241
Medium: 50% v/v dioxan/H2O, 0.1 M KNO3. By calorimetry: DH(K1)=-43.3
kJ mol-1, DS=53 J K-1 mol-1. DH(K2)=-15.8.
--------------------------------------------------------------------------------
Pb++       vlt oth/un 25°C 0.20M U   H    K1=10.3        1977KKa (52125)1242
DH(K1)=-34.7 kJ mol-1
--------------------------------------------------------------------------------
Pb++       vlt KNO3   25°C 0.20M U        K1=10.43       1974KOd (52126)1243
--------------------------------------------------------------------------------
Pb++       sp  oth/un 18°C 0.10M U        B2=41.4        1971SLb (52127)1244
Metal indicator method, pH=4
--------------------------------------------------------------------------------
Pb++       vlt alc/w  25°C  60%  U  I     K1=11.08  B2=12.68  1969IMa (52128)1245
Medium: 0-93.5% EtOH, 0.1 M LiNO3
K1(0%)=10.12, K1(80%)=11.60, B2(0%)=11.31, B2(80%)=13.74, B3(93.5%)=16.11
--------------------------------------------------------------------------------
Pb++       vlt KNO3   25°C  1.0M U        K1=9.9         1968LCc (52129)1246
--------------------------------------------------------------------------------
Pb++       gl  KCl    25°C 0.10M U        K1=10.4        1957RSb (52130)1247
********************************************************************************
C7H5NOS                HL                    CAS 7405-23-4  (3177)
4-Hydroxybenzothiazole;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  diox/w 25°C  50%  U        K1=7.73   B2=13.42  1960FFa (52592)1248
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M U        K1=4.7         1958YYa (52629)1249
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       vlt KNO3   20°C 0.10M C                        1998SAa (52793)1250
                                         K1eff=9.06
                                         B2eff=11.96
Method: potentiometric stripping analysis. Medium: pH 6.2.
By DPASV: K1eff=9.30, B2eff=11.46.
--------------------------------------------------------------------------------
```

```
Pb++       gl  KNO3   25°C 0.10M M    M   K1=5.26        1996AEa (52794)1251
Data for ternary complexes with aspartic acid, serine, asparagine and
N-(2-acetamido)iminodiacetic acid
--------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C 0.50M U        K1=8.66   B2=11.55  1972CAa (52795)1252
--------------------------------------------------------------------------
Pb++       sp  NaClO4 25°C 0.50M U        K1=8.6         1972CAa (52796)1253
--------------------------------------------------------------------------
Pb++       EMF NaNO3  20°C 0.10M U        K1=8.70   B2=11.60  1960ANb (52797)1254
--------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M U        K1=5.1    B2=8.2    1957SYb (52798)1255
**************************************************************************
C7H5O2Br               HL                     CAS 4584-68-3  (2691)
3-Bromotropolone;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Pb++       gl  diox/w 30°C  50%  U        K1=7.5    B2=13.1   1954BFd (53115)1256
**************************************************************************
C7H5O6BrS             H2L                       (1626)
3-Bromo-5-sulfosalicylic acid; Br.C6H2(OH)(COOH).SO3H
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 3.00M C      T                1976LEb (53373)1257
                                        B(0,1,1)=1.116
                                        B(0,1,2)=1.931
                                        B(-1,1,1)=-4.875
                                        B(-2,1,2)=-11.187
B(p,q,r): pH+qPb+rHL=Hp(Pb)qHLr
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.50M U        K1=3.04        1969HLa (53629)1258
--------------------------------------------------------------------------
Pb++       gl  diox/w 25°C  50%  U        K1=5.06   B2=9.10   1949MMa (53630)1259
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  diox/w 30°C  50%  U        K1=8.0    B2=14.0   1953BFa (53685)1260
**************************************************************************
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
-------------------------------------------------------------------------
Pb++       vlt NaClO4 30°C  1.0M C        K1=2.08   B2= 3.46  1988GMc (53848)1261
Method: polarography.
-------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 1.00M C        K1=1.87   B2=2.89   1978OSa (53849)1262
-------------------------------------------------------------------------
Pb++       gl  KNO3   30°C 0.40M U        K1=1.99        1970BTa (53850)1263
-------------------------------------------------------------------------
Pb++       vlt NaClO4 40°C  1.0M U T H    B2=3.28        1964JGa (53851)1264
B2=3.30(30 C). DH(B2)=-26.7 kJ mol-1
-------------------------------------------------------------------------
Pb++       gl  oth/un 25°C 0.10M U        K1=2.0         1960YYa (53852)1265
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       vlt alc/w  30°C  50%  U        K1=2.29?       1967KNa (53913)1266
Medium: 50% EtOH, 0.2 M KNO3, acetate buffer
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  alc/w  25°C 100%  M   H    K1=5.9    B2=8.5    1994MPc (54279)1267
Medium: MeOH; DH(K1)=18 kJ mol-1, DS=17 J K-1 mol-1; DH(B2)=39, DS=29
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 1.00M U                         1981KMa (54690)1268
                                          B(PbH2L)=23.73
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 1.00M U        K1=2.03        1987VIa (54759)1269
*************************************************************************
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
-------------------------------------------------------------------------
```

```
Pb++       gl  oth/un 25°C  0.0  U                        1960LUa (55250)1270
                                        Kso=-9.81
--------------------------------------------------------------------------
Pb++       gl  oth/un 25°C  ->0  U        K1=2.82         1958LUa (55251)1271
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  diox/w 25°C  50%  U        K1=5.53         1961SHa (55405)1272
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
--------------------------------------------------------------------------
Pb++       gl  NaNO3  20°C 0.10M U        K1=4.0          1960ANb (55431)1273
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  diox/w 30°C  50%  U        K1=10.49  B2=19.60  1994JBb (55511)1274
Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4.
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  diox/w 30°C  45%  U        K1=5.04   B2=9.19   1982MYb (55715)1275
Medium: 45% v/v dioxan/H2O, 0.01 M KNO3
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  oth/un 26°C 0.01M U T      K1=4.79   B2=8.15   1970GWa (56677)1276
1(34.8 C)=4.63, K1(44.7 C)=4.44, K2(34.8 C)=3.41, K2(44.7 C)=3.27
**************************************************************************
C7H10N2O2S             HL                        (560)
2-(Methanesulfonamidomethyl)pyridine; C5H4N.CH2S(:O)2NHCH3
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Pb++       gl  diox/w 30°C  45%  U        K1=6.73   B2=12.26  1982MYb (56686)1277
```

Medium: 45% v/v dioxan/H2O, 0.01 M KNO3

****

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
Pb++	gl	KNO3	25°C	0.10M	U		K1=7.7	1963ANa	(56830)1278

****

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
Pb++	gl	KNO3	20°C	0.10M	U		K1=12.07	1974RMf	(56914)1279

****

C7H11N3O HL CAS 18259-63-7 (2265)

N,N-Dimethyl-1-methyl-4-aminopyrimidin-2-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	nmr	non-aq	25°C	100%	U	M	K(PbCl2+L)=0.43	1980MCb	(56964)1280

Medium: DMSO=d6

****

C7H11N3O2 L CAS 7389-87-9 (3162)

Histidine methyl ester

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	EMF	oth/un	25°C	?	U		K1=5.8	1966PAa	(57004)1281

****

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
Pb++	gl	KNO3	25°C	0.10M	C		K1=3.89 B(PbHL)=10.70 K(PbL+H)=6.81 K(Pb+HL)=2.327	2002FBa	(57175)1282
Pb++	gl	KNO3	20°C	0.10M	U		K1=8.40 B2=10.64	1980BBc	(57176)1283

****

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
Pb++	gl	KNO3	25°C	0.10M	C		K1=2.62	1975LPa	(57310)1284

****

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
Pb++	gl	KNO3	20°C	0.10M	U		K1=9.12 B2=12.48 B(Pb(OH)L+H)=10.44	1955SAa (57549)	1285

****

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
Pb++	gl	KNO3	20°C	0.10M	U		K1=9.49 B2=13.24 K(PbLOH+H)=10.11 K(PbL2OH+H)=10.72	1955SAa (57577)	1286

****

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
Pb++	EMF	KNO3	20°C	0.10M	U		K1=9.36 B2=13.37	1968MRb (57597)	1287

****

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
Pb++	gl	KNO3	20°C	0.10M	U		K1=9.02 B2=12.94	1980MRc (57617)	1288

****

C7H13NS2 HL (4455)
Hexamethylenedithiocarbamic acid; (CH2)6N.CSSH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	dis	oth/un	25°C	0.01M	U		B2=17.7	1973SSa (57631)	1289

****

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
Pb++	EMF	KNO3	20°C	0.10M	U		K1=6.20 B2=10.52	1968MRb (57940)	1290

****

C7H15NO5 L CAS 3329-30-4 (564)
2-Methylamino-2-deoxyglucose;

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

---
Pb++ gl NaNO3 30°C 0.10M U K1=3.7 1979MNa (57973)1291
****
C7H16S L CAS 26158-99-6 (5696)
Pentyl-ethylsulfide; C2H5.S.C5H11

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ ISE non-aq 25°C 100% U K1=0.41 B2=0.55 1986MMb (58096)1292
Medium: acetone, Bu4NClO4
****
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
---
Pb++ gl oth/un 25°C ? C K1=3.70 1991DMa (58106)1293
****
C7H17NO5 L CAS 6284-40-8 (3176)
N-Methylglucamine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ vlt NaClO4 30°C 0.30M U I 1959JUa (58108)1294
K(PbL+2OH)=15.22
K=15.13(I=0.65 M); 15.01(I=0.99-2.0 M). By glass electrode: K(Pb2O2L2+2H)=
20.4. Data also for several other polynuclear complexes
****
C7H17N3 L (101)
1,4,7-Triazacyclodecane; cyclo(.NHCH2CH2NHCH2CH2NHCH2CH2CH2.)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaClO4 25°C 0.20M M H K1=8.8 1978KKb (58225)1295
DH1=-34.3 kJ mol-1
****
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
---
Pb++ gl NaClO4 20°C 0.10M U 1991WBa (58311)1296
B(PbHL)=15.98
****
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
---
Pb++ vlt oth/un 25°C 0.20M U H K1=7.8 1977KKa (58358)1297

DH(K1)=-29.3 kJ mol-1
****
C8H5N5O6 H3L Murexide (453)
Purpuric acid (Murexide is ammonium salt);

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ sp non-aq 25°C 100% U TIH K1=5.51 B2=8.66 1995GSa (58527)1298
Medium: 10% w/w MeCN/DMSO. DH(K1)=-22.9 kJ mol-1, DS=29 J K-1 mol-1
DH(K2)=14.5, DS=109
****
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
---
Pb++ gl KNO3 25°C 0.10M C K1=3.40 1987AZa (59001)1299

Pb++ ISE NaClO4 25°C 1.00M C K1=2.77 B2=4.03 1978OSa (59002)1300
B(PbHL)=5.92
B(PbHL2)=8.01
****
C8H6O4 H2L Isophthalic aci CAS 212-91-5 (1619)
Benzene-1,3-dicarboxylic acid; C6H4(COOH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ ISE NaClO4 25°C 1.00M C K1=2.17 B2=3.36 1978OSa (59058)1301
B(PbHL)=5.94
B(PbHL2)=7.23
****
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
---
Pb++ gl NaNO3 25°C 0.10M C K1=6.90 2000SIa (59376)1302
B(PbHL)=12.20
B(PbH2L2)=25.73
****
C8H8O2 HL CAS 1004-72-4 (3190)
alpha-Methyltropolone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl diox/w 30°C 50% U K1=9.4 B2=16.1 1954BFb (59582)1303
****
C8H8O2 HL CAS 583-80-2 (3191)
beta-Methyltropolone;

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       gl  diox/w 30°C  50%  U        K1=9.6    B2=16.2   1954BFb (59602)1304
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  oth/un 25°C 0.10M U        K1=1.8         1962SYa (59625)1305
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  oth/un 25°C 0.10M U        K1=1.9         1960YYa (59916)1306
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  oth/un 25°C 0.10M U        K1=1.4         1962SYa (60040)1307
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       oth diox/w 30°C  70%  U        B2=21.72       1973BSa (60162)1308
Medium: 0.1 M KNO3
*************************************************************************
C8H9NO3                HL                      CAS 2292-53-7  (8860)
Mandelohydroxamic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       gl  KNO3   20°C 0.10M U        K1=3.68   B2= 7.11  1989SMc (60447)1309
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  KNO3   37°C 0.15M C        K1=8.57   B2=13.50  1979SPd (60468)1310
                                          K(PbL+H)=3.77
*************************************************************************
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
Pb++	gl	KNO3	25°C	0.10M	U		K1=12.73	1983FSa (60648)	1311
Pb++	gl	R4N.X	25°C	0.10M	C		K2=3.74	1975JTa (60649)	1312
Pb++	oth	KNO3	25°C	0.10M	U		K1=12.73	1972FVa (60650)	1313
Pb++	gl	KNO3	20°C	0.10M	U		K1=12	1963IFb (60651)	1314

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
Pb++	gl	KNO3	37°C	0.15M	C		K1=8.50 B2=13.46 B(PbHL)=15.43 B(PbHL2)=21.07 B(PbH2L2)=27.92 B(Pb2L)=11.35	1979SPd (60757)	1315

Also B(PbH2L)=17.3; B(Pb2L2)=19.40; B(Pb2HL2)=25.67.

C8H10N2S L CAS 2724-69-8 (2570)
N,N'-Methylphenylthiocarbamide; CH3.NH.CS.NH.C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	alc/w	25°C	80%	U	I	K1=0.45 B2=1.57 B3=2.46 B4=2.90 B5=3.84	1976FFa (60777)	1316

Medium: 80% w/w EtOH/H2O, 0.1 M LiClO4. Pb electrode. Data also for 40%

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
Pb++	gl	KCl	25°C	0.10M	C		K1=7.44 K(PbL+H)=3.74 K(PbHL+H)=2.64 K(PbH2L+H)=2.04 K(Pb+HL)=5.20	1992MMa (60906)	1317

K(Pb+H2L)=3.05, K(Pb+H3L)=1.69

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

---

Pb++	gl	KCl	25°C	0.10M	C	K1=7.71	1992MMa	(60918)1318
						K(PbL+H)=3.98		
						K(PbHL+H)=2.84		
						K(PbH2L+H)=1.7		
						K(Pb+HL)=5.72		

K(Pb+H2L)=3.70, K(Pb+H3L)=1.39

****

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
Pb++	gl	KCl	25°C	0.10M	C		K1=7.01	1989MMd	(60930)1319
							K(PbL+H)=3.98		
							K(PbHL+H)=2.67		

****

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
Pb++	gl	NaClO4	25°C	1.0M	C			1997GCa	(61083)1320
							K(Pb+H2L=PbHL+H)=-4.6		
							K(Pb+H2L=PbL+H)=-9.31		
							K(PbHL=PbL+H)=-4.69		

Ligand defined as H2L

Pb++	gl	NaNO3	20°C	0.50M	U			1974GSa (61084)1321
							B(PbHL)=22.23	

****

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
Pb++	vlt	KNO3	30°C	1.0M	C	M		1989SCc	(61123)1322
							K(Pb+HL)=1.09		
							K(Pb+HL+ser)=5.43		
							K(Pb+HL+trp)=5.57		

Method: polarography. Medium pH >5.6
K(Pb+HL+val)=5.43, K(Pb+HL+thr)=5.39, K(Pb+HL+phe)=5.33.

Pb++	vlt	KNO3	20°C	0.10M	U	T H		1974CGa (61124)1323
							K(Pb+HL)=0.9	
							K(Pb+2HL)=1.86	

30 C: K1=1.10, B2=1.77; 40 C: K1=1.23, B2=1.62

****

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
Pb++	gl	NaNO3	20°C	0.50M	U			1974GSa (61167)	1324
							B(PbHL)=20.47		

****

C8H12N2O8 H4L CAS 35039-85-1 (4537)
1,2-Diaminoethane-N,N'-dimalonic acid; (HOOC)2.CH.NH.CH2.CH2.NH.CH(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KNO3	25°C	0.10M	U		K1=11.12	1973GSd (61518)	1325
							K(Pb+HL)=5.58		

****

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
Pb++	gl	KNO3	20°C	0.10M	U		K1=11.55	1974RMf (61792)	1326

****

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
Pb++	gl	NaClO4	25°C	0.10M	U		K1=10.75	1975POa (61828)	1327
							K(Pb+HL)=3.09		

****

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
Pb++	gl	NaNO3	25°C	0.10M	U		K1=3.86	1990HNa (61947)	1328

****

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
Pb++	nmr	oth/un	25°C	0.80M	U		K1=3.00	1972RLb (62023)	1329
							K(Pb+HL)=1.40		

Medium: 0.8, 0.2 Pb(NO3)2

****

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

```
--------------------------------------------------------------------------------
Pb++       EMF diox/w 25°C  50%  U        K1=3.58        1978SPa (62073)1330
With L-lipoic acid: K1=3.57; D-lipoic acid: 3.51
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C  1.0M C        K1=10.12       1981ASb (62217)1331
                                         B(PbH-1L)=1.68
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 1.00M U        K1=3.95        1979KMa (62437)1332
                                         B(PbHL)=11.30
                                         B(PbH-1L)=-3.76
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M U        K1=10.0        1983FSa (62474)1333
--------------------------------------------------------------------------------
Pb++       gl  KNO3   20°C 0.10M U        K1=9.99        1966MKb (62475)1334
********************************************************************************
C8H16N2O4             H2L                       (266)
N,N'-Dimethylethylenediamine-N,N'-diethanoic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M C        K1=11.29       1993WLa (62531)1335
                                         K(Pb+HL)=3.8
                                         K(PbL+OH)=2.82
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  KCl    25°C 0.10M C        K1=19.86       1996LMa (62550)1336
                                         B(PbHL)=27.25
                                         B(PbH2L)=31.30
                                         B(Pb(OH)L)=8.40
********************************************************************************
```

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
Pb++	gl	NaClO4	25°C	0.10M	U		K1=16.38 B2=23.21	1978MJa (62559)	1337

****
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
Pb++	EMF	oth/un	20°C	0.10M	U	M	K1=11.24 K(PbOH+L)=3.80	1972DKa (62587)	1338
Pb++	gl	KNO3	20°C	0.10M	U		K1=11.24	1970DKa (62588)	1339

By spectrophotometry: K1=11.35 in 0.1 M NaClO4
****
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
Pb++	gl	NaCl	37°C	0.15M	C		K1=2.34 B(PbH-1L2)=-0.06	1988BCb (62617)	1340

****
C8H16O2S2 L CAS 294-95-1 (8604)
1,7-Dioxa-4,10-dithiacyclododecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	cal	non-aq	25°C	100%	C	H	K1=4.01 B2= 5.79	1986BUe (62626)	1341

DH(K1)=-2.4 kJ mol-1, DS(K1)=68.5 J K-1 mol-1; DH(K2)=-5.0, DS(K2)=17.
Medium: MeOH.
****
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
Pb++	vlt	R4N.X	25°C	0.2M	U		K1=15.2	1999BBc (62714)	1342

Medium: 0.2 M Bu4NPF6

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	mixed	25°C	90%	C		K1=2.7	1996SSc (62715)	1343

Method: polarography. Medium: 90% w/w CH3CN/H2O.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	cal	non-aq	25°C	100%	C	H	K1=1.77 B2= 3.88	1986BUe (62716)	1344

DH(K1)=-13.9 kJ mol-1, DS(K1)=-13 J K-1 mol-1; DH(K2)=-9.6, DS(K2)=8.1.
Medium: MeOH.

Pb++ vlt oth/un RT 0.10M C K1=<2 1985LAa (62717)1345
Method: dc polarography. Medium: 0.10 M HNO3.

Pb++ ISE non-aq 25°C 100% U K1=7.68 B2=11.70 1982MDa (62718)1346
Medium: propylene carbonate

Pb++ vlt R4N.X 25°C 0.10M U T K1=2.00 1978KKe (62719)1347
****
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
---
Pb++ vlt NaNO3 25°C 0.5M C K1=3.75 1998CCf (62767)1348
K(Pb+L+OH)=9.30
K(Pb+L+2OH)=12.70
Method: Differential pulse polarography.
****
C8H17N3O2 HL (5973)
1,4,7-Triazacyclononane-1-ethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl KNO3 25°C 0.50M M K1=13.11 1993CKa (62792)1349
K(Pb(OH)L+H)=12.34
****
C8H18N2OS L [12]aneN2OS CAS 124775-44-6 (7839)
1-Oxa-7-thia-4,10-diazacyclododecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M C K1=6.6 1999AMa (62823)1350
Medium: 0.10 M Et4NClO4.
****
C8H18N2O2 L CAS 60350-13-2 (5708)
1,4-Dioxa-7,10-diazacyclododecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaNO3 25°C 0.10M U K1=6.3 1986TSa (62827)1351
Believed to be unreliable due to low solubility of the ligand
****
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
---
Pb++ cal non-aq 25°C 100% C H K1=7.22 B2= 8.95 1986BUe (62848)1352
DH(K1)=-27.2 kJ mol-1, DS(K1)=46.3 J K-1 mol-1; DH(K2)=4.7, DS(K2)=48.7.
Medium: MeOH.

```
---------------------------------------------------------------------------
Pb++       gl  R4N.X  25°C 0.10M U        K1=6.37        1985NSb (62849)1353
                                          B(PbH-1L)=-2.9
***************************************************************************
C8H18O5                 L    Tetra-Et-Glycol  CAS 112-60-7  (5664)
2,2'-(Oxybis(2,2-ethanediyloxy))-bis-ethanol; O(CH2.CH2.O.CH2.CH2.OH)2
---------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
---------------------------------------------------------------------------
Pb++       cal alc/w  25°C 100%  U   H    K1=3.17        1985BUa (63006)1354
Medium: MeOH. DH(K1)=-13.1 kJ mol-1
***************************************************************************
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
---------------------------------------------------------------------------
Pb++       gl  KNO3   25°C  1.0M C        K1=4.32        1980SAb (63067)1355
                                          K(Pb(ATP)+L)=1.83
***************************************************************************
C8H19N3O                L                        (4430)
1-Oxa-4,7,10-triazacyclododecane;
---------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
---------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M U        K1=11.54  B2=14.95  1991ACa (63136)1356
                                          B(PbH-1L)=0.1
                                          K(PbL+OH)=2.38
---------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.10M U        K1=11.54       1988HSb (63137)1357
---------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.10M U        K1=11.54       1986TSa (63138)1358
***************************************************************************
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
---------------------------------------------------------------------------
Pb++       vlt mixed   RT   50%  C                         1986HSd (63158)1359
                                          B3=10.66
                                          B4=11.84
Medium: 50% v/v DMF/H2O. Method: polarography.
---------------------------------------------------------------------------
Pb++       vlt alc/w    ?   90%  U        B2=10.60       1971TCa (63159)1360
Medium: 90% EtOH, 0.3 M NaClO4
***************************************************************************
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
```

```
-------------------------------------------------------------------------------
Pb++       vlt alc/w    ?   90%  U        B2=12.0        1971TCa (63208)1361
Medium: 90% EtOH, 0.15 M NaClO4
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.10M U        K1=15.9        1988HSb (63296)1362
-------------------------------------------------------------------------------
Pb++       vlt oth/un 25°C 0.20M U   H    K1=15.9        1977KKa (63297)1363
DH(K1)=-27.6 kJ mol-1
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C 0.20M M   H    K1=9.9         1978KKb (63478)1364
DH1=-38.1 kJ mol-1
-------------------------------------------------------------------------------
Pb++       vlt oth/un 25°C  1.0M U        K1=10.9        1962JSa (63479)1365
Medium: NH3
-------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M U        K1=10-11       1958RHa (63480)1366
*******************************************************************************
C9H6NOCl               HL                   CAS 130-16-5  (1268)
5-Chloro-8-hydroxyquinoline;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Pb++       gl  diox/w 25°C  60%  U        K1=10.26  B2=17.82  1973SCd (63664)1367
Medium: 60% dioxan, 0.1 M NaClO4
*******************************************************************************
C9H6N2O3               HL                   CAS 5437-99-0  (3865)
5-Nitro-8-hydroxyquinoline;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Pb++       gl  diox/w 25°C  60%  U        K1=7.63   B2=13.16  1973SCd (63865)1368
Medium: 60% dioxan, 0.1 M NaClO4
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       EMF oth/un 25°C  0.0  U        K1=5.92        1955NUa (63913)1369
*******************************************************************************
```

C9H7NO HL Oxine CAS 148-24-3 (504)
8-Hydroxyquinoline (8-quinolinol);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	sp	diox/w	25°C	50%	U	I	K1=10.03	B2=17.34	1978QCa (64329)	1370

In water-saturated propylene carbonate K1=11.4, K2=9.5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	diox/w	25°C	60%	U		K1=10.82	B2=18.41	1973SCd (64330)	1371

Medium: 60% dioxan, 0.1 M NaClO4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	diox/w	25°C	50%	U	H	K1=10.03	B2=17.34	1968GFa (64331)	1372

Medium: 50% dioxan, 0.1 M NaClO4. By calorimetry:DH1=-27.6 kJ mol-1, DS1=100 J K-1 mol-1; DH(B2)=-63.1, DS=121

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	oth/un	25°C	0.0	U		K1=9.02		1953NAb (64332)	1373
Pb++	gl	diox/w	25°C	50%	U		K1=10.61	B2=18.70	1952JFa (64333)	1374

****

C9H7NO3S2 H2L CAS 58447-10-2 (4675)
8-Mercaptoquinoline-5-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	sp	oth/un	?	?	U		K1=9.6	B2=15.70	1968ABa (64428)	1375

****

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
Pb++	ISE	KNO3	25°C	0.10M	U		K1=7.77		1980NWa (64571)	1376
Pb++	gl	oth/un	25°C	0.0	U		K1=8.53	B2=16.13	1954NUa (64572)	1377

****

C9H7NS HL CAS 76076-35-2 (5695)
2-Mercaptoquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	EMF	non-aq	25°C	100%	U		K1=7.6	B2=12.40	1986UBa (64613)	1378

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
Pb++	gl	non-aq	25°C	100%	U		K1=8.6	B2=14.1	1984UBa (64650)	1379

Medium: DMF, 0.1 M LiClO4. Similar data to reference UB83a

```
--------------------------------------------------------------------------------
Pb++       EMF non-aq 25°C 100%  U        K1=8.6    B2=14.10  1983UBa (64651)1380
Medium: DMF, 0.1 M LiClO4
--------------------------------------------------------------------------------
Pb++       cal diox/w 25°C  50%  U   H                   1968GFa (64652)1381
Medium: 50% dioxan, 0.1 M NaClO4. DH(K1)=-42.2 kJ mol-1, DS=84 J K-1 mol-1
--------------------------------------------------------------------------------
Pb++       sp  diox/w 27°C  50%  U        K1=11.85       1963CFa (64653)1382
********************************************************************************
C9H7NSe                HL                    CAS 16396-64-8  (3867)
8-Hydroselenylquinoline;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       sp  diox/w 25°C  50%  U        K1=10.4        1965SFa (64657)1383
                                         K(PbL+H)=0.4
Medium: 50% dioxan, 0.1 M NaClO4
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  alc/w  25°C  50%  U                       1967NPb (64719)1384
                                         K(Pb+HL)=9.7
Medium: 50% MeOH, 0.1 M NaClO4
--------------------------------------------------------------------------------
Pb++       sp  NaClO4 20°C 0.10M U                       1966HSb (64720)1385
                                         K(Pb+HL)=8.34
********************************************************************************
C9H8N2                  L                     CAS 578-66-5  (503)
8-Aminoquinoline;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  oth/un 25°C 0.10M U        K1=1.4         1964PCa (64783)1386
********************************************************************************
C9H8O4                 HL    Acetylsalicylic  CAS 50-78-2  (1240)
2-Acetoxybenzoic acid, Acetylsalicylic acid; CH3.CO.O.C6H4.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       vlt NaClO4 30°C  1.5M C        K1=1.845  B2= 2.37  1980YVa (64898)1387
                                         B3=3.310
Method: polarography.
********************************************************************************
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
```

Pb++ gl oth/un 25°C 0.10M U K1=2.5 1962SYa (65003)1388
****
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
---
Pb++ gl oth/un 25°C 0.10M U K1=2.6 1962SYa (65021)1389
****
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
---
Pb++ vlt NaNO3 25°C 0.10M U M K1=6.70 1996BBd (65057)1390
K(Pb+HL)=1.09
K(Pb+2HL)=2.06
B(Pb(bpy)L)=9.51
K(Pb+bpy+2HL)=5.06
****
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
---
Pb++ gl alc/w 25°C 50% C K1=4.26 1999GAa (65134)1391
Medium: 50% EtOH/H2O, 0.10 M NaNO3.
****
C9H10N2O3 HL CAS 61-78-9 (8235)
4-Aminohippuric acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ vlt KNO3 35°C 1.0M C T H K1=4.778 B2= 9.59 1980SSg (65250)1392
Method: polarography. At 20 C, K1=4.892, B2=9.606.
DH(K1)=-13.9 kJ mol-1, DS(B2)=-48.8.
****
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
---
Pb++ gl diox/w 30°C 50% U K1=4 1956IFa (65408)1393
****
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
---

```
Pb++       oth diox/w 30°C  70%  U        K1=9.50   B2=18.17  1973BSc (65681)1394
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       vlt KNO3   30°C  1.0M C        K1=4.94   B2= 7.65  1989SCc (65963)1395
Method: polarography. Medium pH >5.6
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C  3.0M U      T K1=4.63   B2=8.35   1973CTb (65964)1396
--------------------------------------------------------------------------------
Pb++       gl  KNO3   20°C 0.37M U      T K1=4.01   B2=8.84   1966SWa (65965)1397
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  NaNO3  20°C 0.37M U                        1971WSa (66238)1398
                                      K(Pb+HL)=4.14
                                      K(Pb+2HL)=8.54
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.50M U        K1=1.72        1985WTa (66266)1399
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  NaNO3  20°C 0.50M U                        1974GSa (66401)1400
                                      K(Pb+H2L)=5.56
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       vlt NaNO3  25°C 0.10M U    M   K1=6.43        1996BBd (66425)1401
                                         K(Pb+HL)=1.08
                                         K(Pb+2HL)=2.03
                                         B(Pb(bpy)L)=9.11
                                         K(Pb+bpy+2HL)=5.03
--------------------------------------------------------------------------------
Pb++       vlt oth/un 25°C 0.10M U                       1968RFa (66426)1402
```

B3=12.88

****

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
Pb++	kin	alc/w	25°C	24%	U			1998YGa	(66481)1403

*K(PbH2L)=-6.4

Medium: 24% v/v EtOH/H20, 4% MeCN, 0.1 M NaCl.

****

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
Pb++	gl	diox/w	35°C	50%	U	I	K1=6.72	1993GJa	(66509)1404

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=7.10.

****

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
Pb++	gl	KNO3	37°C	0.15M	C		K1=3.0 B2=5.20	1979SPd	(66614)1405

****

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
Pb++	gl	NaNO3	20°C	1.0M	U		K1=3.4	1965FBa	(66702)1406

****

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
Pb++	EMF	KNO3	25°C	0.10M	U		K1=12.02	1982KBb	(66743)1407

****

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
Pb++	gl	NaClO4	25°C	1.0M	C			1997GCa	(66866)1408

K(Pb+H2L=PbHL+H)=-4.8

K(Pb+H2L=PbL+2H)=-9.00
K(Pb+H2L=PbH-1L+3H)=-18.28
K(Pb+2H2L=PbL2+4H)=-24.08
Ligand defined as H2L. K(Pb+2H2L=PbH-1L+5H)=-33.99, K(PbHL=PbL+H)=-4.2,
K(PbL=PbH-1L+H)=-9.29, K(PbH-1L2=PbH-2L2+H)=-9.81, K(PbL+H2L=PbL2+2H)=-15.08

Pb++ gl NaNO3 20°C 0.50M U 1974GSa (66867)1409
B(PbHL)=21.06
****
C9H13NO6 H3L (3881)
2,6-Dicarboxypiperidyl-N-ethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl KNO3 25°C 0.10M U K1=11.24 1968KTd (66891)1410
****
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
---
Pb++ gl NaNO3 25°C 0.10M M 1999DSa (66979)1411
K(Pb+HL)=2.80
****
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
---
Pb++ nmr non-aq 32°C 100% U 1980MCa (67071)1412
K(Pb(NO3)2+L)=1.0
K(Pb(ClO4)2+L)=0.90
K(PbCl2+L)=0.079
Medium: DMSO-d6

Pb++ gl NaNO3 20°C 1.0M U K1=0.96 1965FBa (67072)1413
****
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
---
Pb++ gl NaNO3 25°C 0.10M M K1=2.93 1999DSa (67261)1414
K(Pb+HL)=1.55
K(PbL+H)=4.81
****
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

```
------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M U                      1964LMa (67322)1415
                                        K(Pb+HL)=3.40
******************************************************************************
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
------------------------------------------------------------------------------
Pb++       gl  NaCl   37°C 0.15M U        K1=9.53        1985HSc (67392)1416
                                        B3=16.49
                                        B(Pb2L3)=23.73
                                        B(Pb2L4)=28.58
                                        B(PbH-1L3)=5.40
******************************************************************************
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
------------------------------------------------------------------------------
Pb++       gl  KNO3   20°C 0.10M U        K1=11.49       1974RMf (67411)1417
******************************************************************************
C9H15N3O4              HL    Gly-Gly-Pro        (6982)
Glycyl-glycyl-proline;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Pb++       gl  KNO3   20°C  0.5M U        K1=3.5         1974KHb (67563)1418
******************************************************************************
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
------------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.10M U        K1=8.27        1990HNa (67615)1419
******************************************************************************
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
------------------------------------------------------------------------------
Pb++       gl  KNO3   20°C 0.10M U        K1=7.25   B2=10.52  1955SAa (67630)1420
******************************************************************************
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
------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C  1.0M C        K1=10.38       1981ASb (67830)1421
```

B(PbH-1L)=1.77

****

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
Pb++	gl	KNO3	25°C	0.20M	C		K1=10.11 B(PbHL)=15.31	2004FBa (67880)	1422

****

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
Pb++	gl	KNO3	20°C	0.5M	U		K1=3.5	1974KHb (67909)	1423

****

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
Pb++	EMF	non-aq	25°C	100%	U		B2=15.0	1987USa (67991)	1424

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
Pb++	gl	KNO3	20°C	0.10M	U		K1=5.40	1955SAa (68004)	1425

****

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
Pb++	gl	NaNO3	25°C	0.10M	U		K1=5.70	1986TSa (68038)	1426

****

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
Pb++	gl	KNO3	25°C	0.10M	C		K1=3.05	2001SBa (68044)	1427

Additional method: voltammetry.

****

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
Pb++	gl	KNO3	25°C	0.10M	C		K1=2.56	2000SCb	(68054)1428

****

C9H20N2S L CAS 35700-30-2 (2571)
N,N'-Dibutylthiocarbamide; C4H9.NH.CS.NH.C4H9

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	alc/w	25°C	80%	U	I	K1=0.60 B3=2.70 B4=3.60 B5=4.26 B6=4.90	B2=1.30 1976FFa	(68068)1429

Medium: 80% w/w EtOH/H2O, 0.1 M LiClO4. Pb electrode. Data also for 40%

****

C9H21NO2 L (6451)
N,N-Di(2-hydroxypropyl)(1-methylethyl)amine; CH3.CH(CH3)N(CH2.CH(OH)CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	oth/un	25°C	?	C		K1=4.14	1991DMa	(68137)1430

****

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
Pb++	gl	KNO3	25°C	0.10M	U		K1=8.84 B(PbH-1L)=-0.5 K(PbL+OH)=4.48	1991ACa	(68205)1431
Pb++	gl	NaNO3	25°C	0.10M	U		K1=8.68	1986TSa	(68206)1432

****

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
Pb++	gl	NaNO3	25°C	0.10M	U		K1=13.48	1985THb	(68249)1433

****

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
Pb++	gl	KNO3	25°C	0.10M	C		K1=12.519	1995BLa	(68292)1434

****

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
Pb++	gl	KCl	25°C	1.0M	U		K1=22.1 K(Pb+HL)=15.6	1984KMa (68325)	1435

****

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
Pb++	gl	NaClO4	20°C	0.10M	U		B(PbH2L)=25.90	1991WBa (68364)	1436

****

C10H6O3 HL CAS 83-72-7 (3294)
2-Hydroxy-1,4-naphthoquinone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	con	oth/un	25°C	?	U		B2=8.94	1971JSa (68462)	1437

****

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
Pb++	gl	diox/w	30°C	75%	U		K1=9.73 B2=17.31	1957CFa (68584)	1438

****

C10H7NO2 HL CAS 132-53-6 (2524)
2-Nitroso-1-naphthol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	30°C	75%	U		K1=8.93 B2=16.07	1957CFa (68652)	1439

****

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
Pb++	gl	KNO3	25°C	0.10M	U		K1=4.0	1957SYa (68716)	1440
Pb++	gl	oth/un	25°C	0.0	U		K1=3.95 B2=7.02	1955LUa (68717)	1441

****

C10H7NO2 HL CAS 86-59-9 (873)
Quinoline-8-carboxylic acid;

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

```
Pb++       gl  diox/w 25°C  50%  U        K1=4.5         1955HCb (68768)1442
--------------------------------------------------------------------------
Pb++       gl  oth/un 25°C  0.0  U        K1=2.45   B2=5.93   1955LUa (68769)1443
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       sp  oth/un 25°C  0.0  U  I     K1=4.74        1966MAg (68891)1444
K(Pb+HL=PbL+H)=1.76+2.036sqrtI/(1+0.95sqrtI)-0.04I
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  NaClO4 10°C 0.10M U   H    K1=5.66   B2=8.83   1979GBf (69022)1445
--------------------------------------------------------------------------
Pb++       gl  KCl    25°C 0.10M U  I     K1=4.64   B2=7.37   1966MAf (69023)1446
At I=0: K1=6.07, B2=8.34
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M U    M   K1=3.08        1987ZLa (69632)1447
                                          B(PbL(Mal))=6.02
--------------------------------------------------------------------------
Pb++       gl  NaNO3  20°C 0.10M U        K1=2.9         1963ANg (69633)1448
--------------------------------------------------------------------------
Pb++       sp  oth/un 27°C 0.50M U        K1=3.0         1955SKa (69634)1449
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.10M U        K1=11.17       1990HWa (69964)1450
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  diox/w 25°C  50%  U        K1=9.97   B2=17.18  1968GFa (70053)1451
--------------------------------------------------------------------------
Pb++       cal diox/w 25°C  50%  U   H                      1968GFa (70054)1452
DH(K1)=-26.3 kJ mol-1, DS=104.5 J K-1 mol-1; DH(B2)=-57.3, DS=138
```

Pb++ gl diox/w 25°C 50% U K1=10.30 B2=18.50 1954JFa (70055)1453
****
C10H9NO HL CAS 3846-73-9 (3320)
8-Hydroxy-4-methylquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl diox/w 25°C 50% U H K1=10.46 B2=18.55 1968GFa (70097)1454
Medium: 50% dioxan, 0.1 M NaClO4. By calorimetry: DH(K1)=-28.4 kJ mol-1,
DS=104 J K-1 mol-1; DH(B2)=-64.4, DS=138

Pb++ gl diox/w 25°C 50% U K1=11.11 B2=19.24 1954JFa (70098)1455
****
C10H9NO L CAS 938-33-0 (3322)
8-Methoxyquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl oth/un 25°C 0.10M U K1=1.1 1964PCa (70107)1456
****
C10H9NO3S2 HL (7206)
6-Methyl-5-sulfo-8-mercaptoquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ sp oth/un 20°C 0.10M U K1=10.0 B2=16.45 1985DAb (70178)1457
****
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
---
Pb++ EMF none 30°C 0.0 U K1=3.45 1985TZa (70238)1458

Pb++ gl oth/un 30°C ? U K1=3.48 1985TZa (70239)1459
****
C10H9NS HL CAS 10222-10-3 (1029)
2-Methyl-8-mercaptoquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl non-aq 25°C 100% U K1=8.8 B2=14.1 1984UBa (70266)1460
Medium: DMF, 0.1 M LiClO4. Similar data to reference UB83a

Pb++ EMF non-aq 25°C 100% U K1=8.8 B2=14.10 1983UBa (70267)1461
Medium: DMF, 0.1 M LiClO4
****
C10H9NS HL CAS 13982-83-7 (1030)
4-Methyl-8-mercaptoquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl non-aq 25°C 100% U K1=8.4 B2=13.5 1984UBa (70278)1462
Medium: DMF, 0.1 M LiClO4. Similar data to reference UB83a

Pb++ EMF non-aq 25°C 100% U K1=8.4 B2=13.50 1983UBa (70279)1463
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
---
Pb++ gl non-aq 25°C 100% U K1=9.4 B2=16.3 1984UBa (70292)1464
Medium: DMF, 0.1 M LiClO4. Similar data to reference UB83a

Pb++ EMF non-aq 25°C 100% U K1=9.4 B2=16.30 1983UBa (70293)1465
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
---
Pb++ gl non-aq 25°C 100% U K1=10.6 B2=17.3 1984UBa (70304)1466
Medium: DMF, 0.1 M LiClO4. Similar data to reference UB83a

Pb++ EMF non-aq 25°C 100% U K1=10.6 B2=17.30 1983UBa (70305)1467
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
---
Pb++ EMF non-aq 25°C 100% U K1=7.3 B2=12.20 1986UBa (70310)1468
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
---
Pb++ EMF non-aq 25°C 100% U K1=8.8 B2=15.90 1986UBa (70315)1469
Medium: dimethylformamide, LiClO4
****
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
-------------------------------------------------------------------------
Pb++       gl  oth/un 25°C 0.10M U        K1=1           1964PCa (70527)1470
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  mixed  25°C  65%  U T      K1=3.63   B2=6.72   1982KNc (70618)1471
Medium: 65% DMSO/H2O, 0.1 KNO3
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  diox/w 30°C  75%  U  I     K1=6.34   B2=12.13  1969LSa (70638)1472
Medium: 75% dioxan, 0.018 M NaCl
In 0.017 NaClO4, 74.5% dioxan: K1=8.26, K2=7.16
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  diox/w 30°C  75%  U        K1=8.84   B2=16.35  1953UFe (70761)1473
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  oth/un 25°C 0.10M U        K1=3.8         1959SYc (71007)1474
-------------------------------------------------------------------------
Pb++       gl  KCl    20°C 0.10M U        K1=3.49        1955SAa (71008)1475
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.10M U        K1=2.93   B2=7.1    1979POa (71141)1476
*************************************************************************
C10H12N2O              HL    Serotonin        CAS 153-98-0  (4735)
5-Hydroxytryptamine  (5-hydroxy-3-(2-aminoethyl)indole)
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       gl  NaClO4 20°C 0.37M U        K1=8.04        1971WSd (71169)1477
```

K(Pb+HL)=5.02

****

C10H12N2O2 HL CAS 89314-29-4 (8507)
2-[(4-Methylphenyl)hydrazono]-propanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	alc/w	30°C	40%	M	M	K1=4.15	B2= 6.95	1995RRe (71198)	1478
							K(PbL+A)=8.84			
							K(PbL+en)=7.04			
							K(PbL+pro)=6.00			
							K(PbL+B)=5.32			
Medium: 40% v/v EtOH/H2O, 0.10 M KNO3. K(PbL+ala)=5.47, K(PbL+gly)=5.20. H2A is catechol, HB is hydroxyproline.										
Pb++	gl	alc/w	30°C	40%	M	M			1995RRe (71199)	1479
							K(Pb(phe)+L)=4.08			
							K(PbA+L)=3.85			
Medium: 40% v/v EtOH/H2O, 0.10 M KNO3. H2A is salicylic acid.										

****

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
Pb++	gl	NaNO3	20°C	0.10M	C	H	K1=10.60		1981ANb (71270)	1480
DH(K1)=-23.4 kJ mol-1, DS=123.0 J K-1 mol-1										
additional method: exchange equilibria and ion selective electrode										
Pb++	gl	KNO3	20°C	0.10M	U		K1=10.31		1963IFc (71271)	1481

****

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
Pb++	gl	KNO3	25°C	0.10M	U		K1=6.7	B2=11.0	1987CSb (71304)	1482
							B3=16.3			

****

C10H12O2 HL CAS 1946-74-3 (202)
3-Isopropyltropolone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	alc/w	25°C	50%	U		K1=5.81	B2=10.26	1955PHa (71596)	1483
Medium: 50% EtOH										
Pb++	gl	diox/w	30°C	50%	U		K1=9.5	B2=16.0	1954BFb (71597)	1484
Pb++	gl	diox/w	30°C	50%	U		K1=9.0	B2=15.7	1954BFb (71598)	1485

****

C10H13NO4S H2L N-Tosylalanine (1584)
N-(4-Toluenesulfonyl)-3-aminopropanoic acid; CH3.C6H4.SO2.NH.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	NaNO3	25°C	0.10M	U	M	K1=6.50 K(Pb+HL)=1.21 K(Pb+2HL)=2.13 B(Pb(bpy)L)=9.21 K(Pb+bpy+2HL)=5.11	1996BBd (71772)	1486

****

C10H13N4O8P H3L IMP CAS 131-99-7 (843)
Inosine-5'-monophosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	M		K1=3.06 K(Pb+HL)=1.30 *K(PbHL)=-4.46	2000DSb (71860)	1487
Pb++	vlt	KNO3	37°C	0.15M	C	M	K1=3.72 B2= 6.34 B(PbAL)=2.21	1995DKa (71861)	1488

Method: polarography. Medium pH 6.0. HA is citrulline.

****

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
Pb++	gl	NaNO3	20°C	1.0M	U		K1=-0.5	1965FBa (71947)	1489

****

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
Pb++	gl	NaNO3	20°C	1.0M	U		K1=3.5 K(Pb+HL)=0.5	1965FBa (72014)	1490

****

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
Pb++	gl	NaNO3	20°C	1.0M	U		K1=4.7	1965FBa (72105)	1491

****

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
Pb++	gl	KNO3	25°C	0.10M	U		K1=3.45	1990VZa (72121)	1492

****

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
Pb++	gl	NaNO3	25°C	0.10M	M		K1=2.92	2000DSb (72482)	1493
							K(Pb+HL)=1.08		
							*K(PbHL)=-4.37		

****

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
Pb++	gl	NaNO3	25°C	0.10M	M		K1=3.23	2000DSb (72592)	1494
							K(Pb+HL)=1.52		
							*K(PbHL)=-4.54		

****

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
Pb++	gl	NaNO3	25°C	0.10M	M			1999DSa (72703)	1495
							K(Pb+HL)=2.93		

****

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
Pb++	gl	KNO3	25°C	0.10M	C		K1=5.43	1986DSa (73035)	1496

****

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
Pb++	EMF	diox/w	25°C	50%	U		K1=3.46	1978SPa (73051)	1497

****

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
Pb++	gl	KNO3	25°C	0.10M	U		K1=11.3	1990VZa (73167)	1498

Pb++ vlt KNO3 25°C 0.10M U K1=12.88 1973GSd (73168)1499
K(Pb+HL)=5.85

Pb++ gl KNO3 20°C 0.10M U K1=12.7 1968MJa (73169)1500
By paper electrophoresis: K1=13.5

Pb++ sp KNO3 20°C 0.10M U K1=12.3 1966MSg (73170)1501

****

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

---

Pb++ vlt KNO3 25°C 0.10M C K1=18.01 2001CKb (74039)1502
Method: cyclic voltammetry. Medium: pH 10.

Pb++ vlt oth/un RT 0.05M C K1=18.10 1995TUa (74040)1503
Method: potentiometric stripping analysis. Medium: 0.05 M acetate, pH 4.5

Pb++ cal none 25°C 0.0 C H 1990OBa (74041)1504
Medium: pH 8.7. DH(K1)=-45.59 kJ mol-1.

Pb++ vlt KCl 30°C 0.30M U K1=18.32 1988HPa (74042)1505

Pb++ gl KNO3 25°C 0.10M U K1=17.88 1983FSa (74043)1506

Pb++ gl NaCl 37°C 0.15M C K1=16.62 1983WWa (74044)1507
B(PbHL)=21.10
B(PbH2L)=23.03

Pb++ EMF KCl 20°C 0.10M C K1=18.2 1981SFa (74045)1508
Method: Pt/H2 electrode.

Pb++ sol KNO3 25°C 1.00M U 1979JPb (74046)1509
K(PbL+H)=2.54
K(PbHL+H)=1.89
K(PbH2L+H)=1.34

Pb++ vlt KNO3 20°C 0.10M U K1=18.20 1978NLb (74047)1510

Pb++ gl NaClO4 25°C 1.00M C K1=16.50 1977OMa (74048)1511
B(PbHL)=19.78
B(PbH2L)=21.35
B(PbH3L)=22.50

Pb++ gl NaClO4 25°C 3.00M C K1=15.19 1976CWa (74049)1512
B(PbHL)=18.01

Pb++ vlt NaNO3 25°C 0.30M U 1974KNc (74050)1513

```
                                        K(Pb+HL)=10.1
-------------------------------------------------------------------------------
Pb++       oth NaClO4 25°C 0.10M U  I                   1973HHb (74051)1514
                                        K(CoLCl+Pb)=1.78
I=1.0, K=1.55
-------------------------------------------------------------------------------
Pb++       vlt NaClO4   ?   1.0M U        K1=17.04      1972VEa (74052)1515
Method: amperometric titn.
-------------------------------------------------------------------------------
Pb++       sp  oth/un   ?     ?  U                     1971KBb (74053)1516
                                        K(Pb+HL)=9.68
                                        K(Pb+H2L)=6.22
-------------------------------------------------------------------------------
Pb++       sp  NaClO4 25°C 1.00M U    M                 1970HSc (74054)1517
                                        K(PbL+H)=2.49
                                        K(PbL+SCN)=1.10
-------------------------------------------------------------------------------
Pb++       oth KNO3   25°C 0.50M U    M                 1967CTa (74055)1518
                                        K(PbA+L=PbL+A)=-0.96
Method: polarimetry. H4A=diaminopropanetetraethanoic acid
-------------------------------------------------------------------------------
Pb++       oth KNO3   20°C 0.10M U        K1=>18        1965JMb (74056)1519
Method: electrophoresis
-------------------------------------------------------------------------------
Pb++       vlt KNO3   25°C 0.20M U        K1=17.76      1965OGa (74057)1520
-------------------------------------------------------------------------------
Pb++       cal KNO3   25°C 0.10M U   H                 1965WHa (74058)1521
DH(K1)=-54.7 kJ mol-1, DS=146 J K-1 mol-1
-------------------------------------------------------------------------------
Pb++       gl  KNO3   20°C 0.10M U        K1=18.04      1964ANa (74059)1522
                                        K(Pb+HL)=10.61
-------------------------------------------------------------------------------
Pb++       cal KNO3   20°C 0.10M U   H                 1963ANf (74060)1523
DH(K1)=-55.2 kJ mol-1, DS=159 J K-1 mol-1
-------------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C  3.0M U        K1=15.99      1963DGc (74061)1524
                                        K(Pb+HL)=12.00
-------------------------------------------------------------------------------
Pb++       dis NaClO4 20°C 0.10M U      T K1=18.32      1963STc (74062)1525
Medium: KClO4
-------------------------------------------------------------------------------
Pb++       vlt oth/un 35°C 0.20M U T                    1961TKa (74063)1526
                                        K(Pb2L(s)=Pb+PbL)=-5.76
Ks=-5.55(15 C),-5.64(25 C)
-------------------------------------------------------------------------------
Pb++       gl  oth/un 20°C 0.17M U   H                  1956CSb (74064)1527
DH(K1)=-58.9 kJ mol-1, DG=-101.17, DS=144 J K-1 mol-1
-------------------------------------------------------------------------------
Pb++       EMF oth/un 25°C  0.0  U   H                  1956MAa (74065)1528
Method: H electrode. DS(K1)=146 J K-1 mol-1
```

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--------------------------------------------------------------------------------
Pb++       EMF NaClO4 25°C 0.10M U      T K1=17.9        1956SRb (74066)1529
--------------------------------------------------------------------------------
Pb++       cal oth/un 25°C 0.05M U   H                   1954CHa (74067)1530
Medium: Pb(NO3)2. DH(K1)=-54.7 kJ mol-1, DS=146 J K-1 mol-1
--------------------------------------------------------------------------------
Pb++       gl  KCl    20°C 0.10M U  I   T K1=18.3        1954SGa (74068)1531
By polarography, 0.1 M KNO3, K1=18.04, K(Pb+HL)=10.61, K(PbL+H)=5.02
--------------------------------------------------------------------------------
Pb++       sp  KNO3   30°C 0.10M U  I     K1=16.8        1953HMa (74069)1532
In 0.1 M KClO4 K1=17.2
--------------------------------------------------------------------------------
Pb++       sp  oth/un   ?  0.10M U        K1=17.7        1952MPa (74070)1533
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.10M C        K1=6.67        1992PPb (74954)1534
                                         B(PbHL)=10.08
                                         B(PbH2L)=13.28
                                         B(Pb2L)=9.77
Additional method: Pb(Hg) electrode
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.10M C        K1=6.67        1982PPc (74955)1535
                                         B(PbHL)=10.08
                                         B(PbH2L)=13.28
********************************************************************************
C10H17NO5             H2L                          (3917)
N-(Tetrahydropyran-2-ylmethyl)iminodiethanoic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  KNO3   20°C 0.10M U        K1=10.30       1963IFa (75005)1536
                                         K(Pb+HL)=5.16
********************************************************************************
C10H17N3O6S           H3L    Glutathione      CAS 70-18-8  (333)
Glutamyl-cysteinyl-glycine;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.10M U TIH    K1=7.481       2001SGd (75135)1537
Data for 0.05-0.2 M NaClO4 and 15-45 C. DH(K1)=-32.0 kJ mol-1, DS(K1)=-43
J K-1 mol-1. At I=0, K1=7.860. Also data for MeOH/H2O, EtOH/H2O, DMF/H2O.
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 3.00M C        K1=10.57  B2=15.00  1976CWa (75136)1538
                                         B(PbHL)=17.14
                                         B(PbHL2)=24.66
```

B(PbH2L2)=32.10
B(PbH-1L2)=4.50

Pb++ gl NaClO4 25°C 3.0M C T H K1=9.91 1976CWb (75137)1539
B(PbHL)=16.82
B(PbHL2)=23.40
B(PbH2L2)=32.31
DH(K1)=-68 kJ mol-1, DH(PbHL)=-82, DH(PbHL2)=-101, DH(PbH2L2)=143. DS1=-37

Pb++ gl KNO3 25°C 0.15M U K1=10.60 1955LMa (75138)1540

****

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
Pb++	EMF	diox/w	25°C	50%	U		K1=3.48	1978SPa	(75181)1541

****

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
Pb++	gl	NaNO3	25°C	0.10M	U		K1=8.65	1990HNa	(75204)1542

****

C10H18N2O4S H2L (6638)
1-Thia-4,7-diazacyclononane-N,N'-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=12.96	1993WLa	(75218)1543
							K(PbL+OH)=1.1		

****

C10H18N2O5 H2L (5608)
1-Oxa-4,7-diazacyclononane-N,N'-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	U		K1=12.00	1990CCa	(75237)1544

****

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
Pb++	gl	KNO3	25°C	0.10M	U		K1=15.5	1983FSa	(75466)1545
Pb++	sp	NaClO4	20°C	0.10M	U		K1=14.92	1976KNa	(75467)1546
							K(Pb+HL)=8.31		

```
Pb++       gl  NaClO4 25°C 1.00M C        K1=14.83       1976OSb (75468)1547
                                         B(PbHL)=16.97
                                         B(PbH2L)=17.89
                                         B(PbH3L)=18.67
-------------------------------------------------------------------------------
Pb++       vlt NaNO3  25°C 0.30M U        K1=8.79        1974KNc (75469)1548
-------------------------------------------------------------------------------
Pb++       sp  oth/un 20°C  dil  U        K1=15.17       1972MCe (75470)1549
                                         K(Pb+HL)=7.38
By indirect method: K1=15.17 & 15.55; K(Pb+HL)=7.38
-------------------------------------------------------------------------------
Pb++       sp  NaClO4 25°C  1.0M U    M                  1970HSc (75471)1550
                                         K(PbL+NH3)=1.62
-------------------------------------------------------------------------------
Pb++       sp  NaClO4 20°C 0.10M U        K1=15.99       1969NKa (75472)1551
-------------------------------------------------------------------------------
Pb++       cal KNO3   25°C 0.10M U   H                  1965WHa (75473)1552
DH(K1)=-52.7 kJ mol-1, DS=121 J K-1 mol-1
-------------------------------------------------------------------------------
Pb++       EMF KNO3   25°C 0.10M U        K1=15.5        1960HRa (75474)1553
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       gl  KNO3   20°C 0.10M U        K1=8.16   B2=12.53  1955SAa (75641)1554
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.20M C        K1=9.64        2004FBa (75709)1555
                                         B(PbHL)=15.31
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M C        K1=20.28       1995SMb (75817)1556
                                         K(PbL+H)=5.41
*******************************************************************************
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
-------------------------------------------------------------------------------
```

Pb++ gl KNO3 20°C 0.10M U K1=10.97 1970DKa (75835)1557
By spectrophotometry: K1=11.15 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
---
Pb++ sp oth/un 20°C 0.10M U K1=10.97 1972DKa (75847)1558
K(PbOH+L)=3.65
****
C10H20N2O6 H2L CAS 5616-21-7 (570)
N,N'-Bis(2-hydroxyethyl)diaminoethane-N,N'-diethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ vlt NaClO4 25°C 0.40M U K1=11.1 1983MMa (75858)1559
K(Pb+HL)=4.45
****
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
---
Pb++ ISE alc/w 25°C 100% C IH T K1=3.6 2003ADa (76098)1560
IUPAC Tentative. Medium: 0-0.1 M various. DH(K1)=-27.2 kJ mol-1
In H2O: K1=2.0, DH(K1)=-13.6

Pb++ con mixed 25°C 90% C K1=2.85 2003ISa (76099)1561
Medium: 90% v/v DMSO/H2O.

Pb++ cal none 25°C dil C H K1=1.81 2002BSc (76100)1562
Self medium, <0.005 M. DH(K1)=-10.1 kJ mol-1, DS(K1)=0.7 J K-1 mol-1.

Pb++ con alc/w 25°C 40% C K1=2.87 2002ISa (76101)1563
Medium: 40% EtOH/H2O.

Pb++ cal none 25°C 0.03M C T H K1=1.82 2002VOa (76102)1564
DH(K1)=-11.2 kJ mol-1
Ionic strength is provided by Pb(NO3)2 used: 0.007-0.05 M.
for 35 C K1=1.74; DH(K1)=-9.0l; for 45 C K1=1.69, DH(K1)=-8.79

Pb++ vlt mixed 25°C 90% C K1=5.1 1996SSc (76103)1565
Method: polarography. Medium: 90% w/w CH3CN/H2O.

Pb++ vlt alc/w 25°C 100% C K1=3.36 1987CBd (76104)1566
Medium: methanol, 0.10 M Et4NI or Bu4NClO4. Method: polarography.

Pb++ cal non-aq 25°C 100% C H K1=3.56 B2= 5.56 1986ICa (76105)1567
Medium: MeOH. DH(K1)=-28.4 kJ mol-1, DS(K1)=-27 J K-1 mol-1;

DH(K2)=-21.1, DS(K2)=-32.5.

Pb++ gl R4N.X 25°C 0.10M U K1=0.95 1985BFa (76106)1568

Pb++ cal alc/w 25°C 100% U H T K1=3.92 1985BUa (76107)1569
Medium: MeOH

Pb++ ISE non-aq 25°C 100% U B2=16.55 1982MDa (76108)1570
Medium: propylene carbonate

Pb++ vlt R4N.X 25°C 0.10M U T K1=2.05 1978KKe (76109)1571

Pb++ cal oth/un 25°C 0.10M U H T K1=1.85 1976ITb (76110)1572
DH=-13.6 kJ mol-1.

****

C10H20S4 L 14-Ane-S4 CAS 24194-61-4 (175)
1,4,8,11-Tetrathiacyclotetradecane; cyclo(-(S.CH2.CH2)2.CH2.(S.CH2.CH2)2.CH2-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	R4N.X	25°C	0.2M	U		K1=9.7	1999BBc (76159)1573	

Medium: 0.2 M Bu4NPF6.

****

C10H21NO3 L (6568)
Trans-1-(bis(2-hydroxyethyl)amino)-2-hydroxycyclohexane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	C		K1=3.72 B2=6.87	1991DCa (76174)1574	

****

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
Pb++	gl	alc/w	25°C	95%	U		K1=6.0	1992BDa (76189)1575	

Medium: 95% MeOH, 0.1 M Et4NClO4

****

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
Pb++	gl	NaClO4	25°C	0.10M	U	H	K1=5.61	1979ASb (76240)1576	

Also DH values

Pb++	gl	NaClO4	25°C	0.10M	U		K1=6.78	1977LAa (76241)1577	

Pb++	gl	NaClO4	25°C	0.10M	U		K1=5.67	1975ASc (76242)1578	

****

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
---
Pb++ gl NaClO4 25°C 0.10M U H K1=6.78 1979ASb (76252)1579
Also DH values

Pb++ cal NaClO4 25°C 0.10M U H K1=6.78 1978ASb (76253)1580
DH=-39.8 kJ mol-1; DS=-4.0 J K-1 mol-1
****
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
---
Pb++ cal none 25°C dil C H 2002BSc (76331)1581
Self medium, <0.005 M. DH(K1)=-42.8 kJ mol-1, DS(K1)=-36.9 J K-1 mol-1.

Pb++ gl R4N.X 25°C 0.05M C K1=5.6 1997BCc (76332)1582
Medium: 0.05 M Me4NClO4

Pb++ ISE non-aq 25°C 100% U K1=3.57 1982NSb (76333)1583
Medium: DMSO, 0.1 M Et4NClO4

Pb++ sp non-aq 25°C 100% U K1=8.64 1981SMb (76334)1584
B(Pb2L)=12.30
In propylene carbonate, I=0.01 M (Et4NClO4)

Pb++ gl alc/w 25°C 100% C K1=7.87 1980SAa (76335)1585
B(Pb2L)=11.36
Medium: MeOH, 0.05 M Et4NClO4

Pb++ sp alc/w 25°C 100% U K1=7.86 1980SAa (76336)1586
B(Pb2L)=12.08
Medium: MeOH, 0.05 M Et4NClO4

Pb++ gl R4N.X 25°C 0.10M C K1=5.85 1977ASc (76337)1587
****
C10H22N2S2 CAS 65113-46-4 (5985)
N,N'-Dimethyl-1,7-diaza-4,10-dithiacyclododecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaClO4 25°C 0.10M U K1=6.16 1985SLa (76374)1588
****
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

```
--------------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.10M U        K1=11.71       1988HDa (76387)1589
--------------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.10M U        K1=11.71       1987HEa (76388)1590
********************************************************************************
C10H22O5                L    Tetraglyme       CAS 143-24-8  (121)
2,5,8,11,14-Pentaoxapentadecane; (CH3.O.CH2.CH2.O.CH2.CH2.)2O
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       cal alc/w  25°C 100%  U   H    K1=2.06        1985BUa (76467)1591
Medium: MeOH. DH(K1)= -7.2 kJ mol-1
--------------------------------------------------------------------------------
Pb++       vlt R4N.X  25°C 0.10M C   H    K1=0.5    B2=1.6    1976KKf (76468)1592
DH(K1)=-13.4 kJ mol-1, DS=-35 J K-1 mol-1. DH(B2)=-26.8, DS=-60
********************************************************************************
C10H22O6                L    Penta-Et-Glycol  CAS 4792-15-8  (5466)
1,14-Dihydroxy-3,6,9,12,-Tetraoxatetradecane; HO.(CH2.CH2.O)4.CH2.CH2.OH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       cal alc/w  25°C 100%  U   H    K1=3.32        1985BUa (76482)1593
Medium: MeOH. DH(K1)=-31.4 kJ mol-1
********************************************************************************
C10H23NO2               L                        (6452)
N,N-Di(2-hydroxypropyl)(1,1-dimethylethyl)amine; (CH3)3C.N(CH2.CH(OH)CH3)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  oth/un 25°C    ?  C        K1=4.33        1991DMa (76487)1594
********************************************************************************
C10H23N3O               L                        (6453)
1-Oxa-4,8,12-triazacyclotetradecane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M U        K1=7.30        1991ACa (76509)1595
                                         B(PbH-1L)=-1.6
                                         K(PbL+OH)=4.92
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.10M C        K1=10.07       1989HBa (76525)1596
********************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.10M U   H    K1=7.49        1979ASb (76560)1597
                                          B(PbHL)=14.11
Also DH values
-------------------------------------------------------------------------
Pb++       cal NaClO4 25°C 0.10M U   H    K1=7.49        1978ASb (76561)1598
DH=-39.9 kJ mol-1; DS=9.4 J K-1 mol-1
-------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.10M U        K1=7.35        1975ASb (76562)1599
                                          B(PbHL)=14.56
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  R4N.X  25°C 0.10M C        K1=13.49       2000PSa (76590)1600
                                          B(PbHL)=19.86
                                          B(PbH2L)=25.12
                                          B(Pb2L)=18.36
                                          B(Pb2H-1L)=10.12
Medium: 0.10 M [Et4N]NO3.  B(Pb2H-2L)=-0.35.
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.10M U        K1=10.86       1991LHa (76617)1601
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       vlt R4N.X  25°C  0.2M U        K1=31.0        1999BBc (76671)1602
Medium: 0.2 M Bu4NPF6.
-------------------------------------------------------------------------
Pb++       gl  KCl    25°C 0.50M U        K1=10.8        1997BLd (76672)1603
-------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.10M U        K1=10.83       1985THb (76673)1604
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.10M U        K1=8.47        1990HNa (76691)1605
*************************************************************************
```

C10H24N4O L (7051)
1-Oxa-4,7,10,13-tetraazacyclopentadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	U		K1=12.28	1990HWa (76711)	1606

****
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
Pb++	gl	NaClO4	25°C	0.20M	M	H	K1=17.3	1978KKb (76738)	1607
							B(PbHL)=21.1		

DH1=-41.8 kJ mol-1
****
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
Pb++	gl	oth/un	25°C	0.10M	U		K1=7.99	1959BYa (76761)	1608

****
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
Pb++	gl	NaClO4	20°C	0.10M	U			1991WBa (76796)	1609
							B(PbH2L)=25.98		

****
C10H28N6 L CAS 4067-16-7 (3903)
1,4,7,10,13,16-Hexaazahexadecane (pentaethylenehexamine):

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	oth/un	25°C	1.0M	U		K1=11.0	1962JSa (76846)	1610

Medium: NH3
****
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
Pb++	gl	NaNO3	25°C	1.0M	C		K1=11.64	2001GLb (76880)	1611
							B(PbHL)=19.56		
							B(PbH2L)=27.25		

****
C11H8N6O HL (7009)
1-(5-Tetrazolyl)azo-2-naphthol;

```
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Pb++       sp  NaClO4 20°C 0.10M U        K1=8.37        1978SSf (76928)1612
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       sp  NaClO4 25°C 0.10M U        K1=8.91        1978BEa (76941)1613
*******************************************************************************
C11H8O2                HL                       (3345)
4,5-Benzotropolone;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Pb++       gl  diox/w 30°C  50%  U        K1=8.8    B2=15.2   1954BFc (76978)1614
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       gl  diox/w 30°C  75%  U        K1=9.10   B2=17.49  1953UFe (77160)1615
*******************************************************************************
C11H9NO2               HL                      CAS 92609-55-3  (4827)
5-Acetyl-8-hydroxyquinoline;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Pb++       gl  diox/w 25°C  60%  U        K1=9.04   B2=15.49  1973SCd (77332)1616
Medium: 60% dioxan, 0.1 M NaClO4
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       gl  alc/w  25°C  50%  U        K1=9.4    B2=14.20  1967ANa (77460)1617
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
-------------------------------------------------------------------------------
Pb++       sp  NaNO3  25°C 0.10M U        K1=10.96       1978KLb (77569)1618
                                         K(PbL+H)=6.43
-------------------------------------------------------------------------------
```

```
Pb++       sp  NaClO4 20°C 0.10M U                        1966HSb (77570)1619
                                        K(Pb+HL)=11.9
--------------------------------------------------------------------------------
Pb++       gl  oth/un 25°C 0.10M U        K1=8.6    B2=15.70  1962GNa (77571)1620
K1=11.2 also given
--------------------------------------------------------------------------------
Pb++       sp  oth/un   ?     ?  U        B2=26.6        1961HSb (77572)1621
                                        K(Pb+HL)=12.9
--------------------------------------------------------------------------------
Pb++       sp  oth/un   ?  0.01M U                        1959KLa (77573)1622
                                        K(?)
********************************************************************************
C11H10N2O2             HL                      CAS 75793-37-6  (1669)
N-(8-Quinolyl)aminoethanoic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.10M U        K1=3.0    B2=5.70   1969TKa (77680)1623
********************************************************************************
C11H10N3OClS           HL                        (1294)
2-(4',5'-Dimethyl-2'-thiazolylazo)-4-chlorophenol;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  diox/w 25°C  60%  U        K1=7.46   B2=12.20  1981KTa (77691)1624
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       sp  NaNO3  20°C 0.10M U                        1961DSa (77835)1625
                                        K(?)=6.14
********************************************************************************
C11H11NS               HL                       CAS 54128-50-6  (1033)
2,7-Dimethyl-8-mercaptoquinoline;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  non-aq 25°C 100%  U        K1=10.0   B2=16.5   1984UBa (77861)1626
Medium: DMF, 0.1 M LiClO4.  Similar data to reference UB83a
--------------------------------------------------------------------------------
Pb++       EMF non-aq 25°C 100%  U        K1=10.0   B2=16.50  1983UBa (77862)1627
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
--------------------------------------------------------------------------------
```

Pb++ EMF non-aq 25°C 100% U K1=8.0 B2=14.50 1986UBa (77867)1628
Medium: dimethylformamide, LiClO4
****
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
---
Pb++ vlt KNO3 30°C 1.0M C K1=5.38 B2= 7.93 1989SCc (78227)1629
Method: polarography. Medium pH >5.6

Pb++ gl NaClO4 25°C 3.0M U K1=4.89 B2=10.27 1973CTb (78228)1630

Pb++ gl NaNO3 20°C 0.37M U K1=5.07 B2=9.62 1971WSa (78229)1631
****
C11H12N2O3 H2L CAS 114-03-4 (4839)
5-Hydroxytryptophan;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaNO3 20°C 0.37M U 1971WSd (78292)1632
K(Pb+HL)=4.0
K(Pb+2HL)=8.38
****
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
---
Pb++ gl NaNO3 20°C 0.10M C H K1=10.15 1981ANb (78890)1633
DH(K1)=-18.4 kJ mol-1, DS=131 J K-1 mol-1
additional method: exchange equilibria and ion selective electrode
****
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
---
Pb++ gl R4N.X 25°C 0.10M C K1=8.45 2004BBe (79119)1634
Medium: 0.1 M Me4NO3
****
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
---
Pb++ vlt KNO3 20°C 0.10M U K1=13.86 1981NSc (79321)1635

Pb++ vlt KNO3 20°C 0.10M U K1=18.97 1978NLb (79322)1636

```
Pb++       vlt KNO3   25°C 0.20M U    M   K1=18.69       1965OGa (79323)1637
Exchange complexes with Zn and EDTA
-------------------------------------------------------------------------------
Pb++       vlt KNO3   20°C 0.10M U        K1=18.97       1964ICb (79324)1638
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       vlt KNO3   25°C 0.20M U        K1=13.04       1965OGa (79462)1639
-------------------------------------------------------------------------------
Pb++       gl  KNO3   20°C 0.10M U   H                   1964ANa (79463)1640
                                         K(Pb+HL)=7.18
By calorimetry: DH(K1)=-26.7 kJ mol-1, DS=170 J K-1 mol-1
-------------------------------------------------------------------------------
Pb++       gl  KNO3   20°C 0.10M U        K1=13.78       1964LAa (79464)1641
                                         K(PbL+H)=3.86
Also K1=13.64. Using Hg/Pb electrode: K1=13.69
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       oth KNO3   20°C 0.10M U        K1=17          1965JMb (79570)1642
Method: electrophoresis
*******************************************************************************
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
-------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M C        K1=15.422      1993CDa (79620)1643
                                         K(Pb(OH)L+H)=10.58
*******************************************************************************
C11H19NO9              HL                   CAS 131-48-6  (8730)
5-Amino-3,5-dideoxy-D-glycero-D-galactononulosic acid;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.10M C    M   K1=3.22   B2= 6.40  2002SMc (79683)1644
                                            B(PbH-1L2)=-0.1
                                            B(Pb(bpy)L)=6.12
                                            B(Pb(bpy)L2)=9.8
                                            B(PbH-1(bpy)L2)=3.9
K(Pb(bpy)+L)=3.22, K(Pb(bpy)+2L)=6.90, K(Pb(bpy)+L=PbH-1(bpy)L+H)=-1.56,
B(PbH-1(bpy)L)=1.34.
*******************************************************************************
C11H19N3O              HL                   CAS 115395-65-8  (9235)
```

2-[Bis-(aminoethyl)-aminomethyl]-phenol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.15M	C		K1=10.86 B(PbHL)=17.68 B(PbH-1L)=0.08	2003AFb (79688)1645	

****

C11H20N2O4S H2L (6639)

1-Thia-4,8-diazacyclodecane-N,N'-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=11.13	1993WLa (79717)1646	

****

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
Pb++	gl	NaCl	37°C	0.15M	C	M	K1=16.89 B(PbHL)=19.23 B(PbH(edta)L)=29.40	1984MWb (79731)1647	

Method: competition with EDTA.

****

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
Pb++	gl	KNO3	25°C	0.20M	C		K1=9.04 B(PbHL)=15.45	2004FBa (79796)1648	

****

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
Pb++	gl	KNO3	25°C	0.20M	C		K1=9.46 B(PbHL)=15.25	2004FBa (79803)1649	

****

C11H22O5 L 16-Crown-5 CAS 55477-28-8 (1592)

1,4,7,10,13-Pentaoxacyclohexadecane; cyclo(-(O.CH2.CH2)5.CH2.CH2-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	none	25°C	0.0	C		K1=0.74	1991TKa (79867)1650	

Self medium (ca. 0.0008M). Method: Pb ion-selective electrode.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	dis	none	25°C	0.0	C	M		1989TKc (79868)1651	

K(PbL+2A=PbA2L(org))=4.81
Method: extraction of metal picrate/L from H2O into benzene.
K(Pb+2HA(org)+L(org)=PbA2L(org)+2H)=1.16. HA is picric acid.

****

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
Pb++	gl	KNO3	25°C	0.10M	U		K1=10.53	1991ACa (79932)	1652
							B(PbH-1L)=0.20		
							K(PbL+OH)=3.49		

****

C11H25N3O2 L (7052)
1,4-Dioxa-7,11,14-triazacyclohexadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=8.46	1994CDa (79941)	1653

****

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
Pb++	gl	NaNO3	25°C	0.10M	C		K1=9.50	1987HNa (79975)	1654

****

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
Pb++	gl	NaNO3	25°C	0.10M	C		K1=10.12	1986HBe (79993)	1655

****

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
Pb++	gl	R4N.X	25°C	0.10M	C		K1=14.7	1999DWa (80010)	1656
							K(Pb+HL)=5.3		
							K(PbL=PbH-1L+H)=-10.7		

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
Pb++	gl	NaNO3	25°C	0.10M	U		K1=10.07	1990HWa (80017)	1657

****
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
---
Pb++ gl NaClO4 25°C 0.20M M H K1=14.3 1978KKb (80034)1658
B(PbHL)=19.3
DH1=-43.9 kJ mol-1
****
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
---
Pb++ gl KCl 25°C 0.50M M K1=9.2 1991HLa (80062)1659
K(PbL+H)=9.1
K(PbHL+H)=7.5
****
C12H8N2 L Phenanthroline CAS 66-71-7 (144)
1,10-Phenanthroline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaCl 30°C 0.16M U I K1=2.872 B2=6.498 1990PSa (80504)1660
Data in several urea/water mixtures: B1=3.017, B2=6.443 in 5.80% w/w urea,
3.373, 6.452 in 11.52; 3.615, 6.509 in 20.31; 3.891, 6.672 in 29.64.

Pb++ gl KNO3 25°C 0.10M U M K1=4.68 1987ZLa (80505)1661
B(PbL(Mal))=7.39

Pb++ ISE KNO3 25°C 0.10M U K1=4.8 B2=7.8 1980NWa (80506)1662
B3=10.3

Pb++ gl NaNO3 20°C 0.10M U K1=4.65 1963ANg (80507)1663
****
C12H10N2O HL CAS 10354-53-7 (3970)
2-Benzoylpyridine oxime; C5H4N.C(:N.OH).C6H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl mixed 40°C 40% U TIH K1=7.33 B2=14.23 1965SSa (80660)1664
Medium: 40% acetone, 0.05 M NaClO4. K1=7.68(20 C),7.47(30 C); K2=7.10(20 C),
7.01(30 C). I=0-0.1. At I=0: DH(K1)=-29.0 kJ mol-1,DS=48; DH(K2)=-16.7,DS=80
****
C12H11N3O HL CAS 19406-16-7 (3974)
4-Methyl-2-(2'-pyridylazo)phenol; C5H4N.N:N.C6H3(OH).CH3

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

---
Pb++ sp alc/w ? 100% U 1967GKa (80877)1665
K(Pb+HL=PbL+H)=4.65
Medium: EtOH
****
C12H11N3OS HL (6787)
2-Hydroxy-1-naphthaldehyde thiosemicarbazone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl diox/w 20°C 75% U K1=7.64 B2=13.45 1992SSc (80893)1666
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
---
Pb++ gl diox/w 20°C 75% U K1=6.05 B2=11.85 1992SSc (80922)1667
Medium: 75% v/v dioxan/H2O and other mixtures, 0.1 M NaClO4
****
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
---
Pb++ sp NaClO4 25°C 0.50M C K1=1.782 1984MTa (80972)1668
****
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
---
Pb++ EMF KNO3 20°C 0.10M U K1=7.38 B2=11.96 1978CSa (81029)1669

Pb++ gl diox/w 25°C 50% U K1=10.9 1962GNb (81030)1670
****
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
---
Pb++ gl KCl 25°C 0.20M U K1=4.42 1992CMd (81166)1671
****
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
---
Pb++ sp NaClO4 25°C 0.50M C K1=1.796 1984MTa (81202)1672

****
C12H13NS HL CAS 54421-21-5 (1034)
2-(2-Propyl)-8-mercaptoquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl non-aq 25°C 100% U K1=4.5 B2=8.4 1984UBa (81256)1673
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
---
Pb++ gl KNO3 20°C 0.10M C H K1=6.00 B2=8.55 1977AHc (81288)1674
Calorimetry: DH1=-31.0 kJ mol-1, DS1=11.3; DH(B2)=-54, DS(B2)=-37
****
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
---
Pb++ gl diox/w 25°C 60% U K1=8.54 B2=13.90 1981KTa (81302)1675
****
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
---
Pb++ gl alc/w 25°C 50% C K1=4.05 1999GAa (81372)1676
Medium: 50% EtOH/H2O, 0.10 M NaNO3.
****
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
---
Pb++ gl KCl 25°C 0.10M C K1=8.66 1989MMd (81419)1677
K(PbL+H)=4.80
K(PbHL+H)=4.05
K(PbH2L+H)=3.18
K(PbL+Pb)=5.93
****
C12H15NO6S H2L CAS 34605-45-3 (4959)
4-Toluenesulfonyl glutamic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ vlt NaNO3 25°C 0.10M C M 1999BMa (81524)1678
K(Pb+H-1L+H)=13.96

K(Pb+2H-1L+2H)=27.51
K(Pb+H-1L)=6.79
Additional method: polarography. Also data for ternary complexes with bipyridine.

Pb++ vlt KCl 25°C 0.10M U 1968RFa (81525)1679
K(PbOH+L)=5.77

****

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
Pb++	con	none	25°C	0.0	C	T H	K1=6.87	1998GRa (81691)1680	

DH(K1)=-121 kJ mol-1, DS(K1)=-290 J K-1 mol-1.
Also data for 15-45 C.

****

C12H18N2O8 H2L CAS 93031-52-8 (5829)
1,4-Dioxa-7,10-diazayclododecane-5,12-dione-7,10-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=8.8	2002DCb (81841)1681	

Medium: 0.10 M Me4NNO3.

****

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
Pb++	gl	KNO3	25°C	0.10M	U		K1=12.84	1986MGc (81910)1682	

K(Pb+HL)=10.09
K(Pb+H2L)=5.90
B(Pb2L)=19.00
K(PbHL+H)=2.79
K(PbL+H)=7.79.

****

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
Pb++	vlt	KNO3	20°C	0.10M	U		K1=19.26	1968NLa (82031)1683	

****

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

```
--------------------------------------------------------------------------------
Pb++       vlt KNO3   25°C 0.10M U        K1=8.45        1973GSd (82089)1684
                                          K(Pb+HL)=4.92
                                          K(Pb+H2L)=2.70
--------------------------------------------------------------------------------
Pb++       ISE KNO3   25°C 0.10M U        K1=8.62        1972GBe (82090)1685
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       vlt KNO3   20°C 0.10M U        K1=17.26       1976NKa (82141)1686
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  KCl    30°C 0.10M U        K1=13.2        1952CMc (82175)1687
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  KNO3   20°C 0.10M U   H                    1964ANa (82231)1688
                                          K(Pb+PbL)=5.41
By calorimetry: DH(K1)=-20.3 kJ mol-1, DS=132 J K-1 mol-1
--------------------------------------------------------------------------------
Pb++       gl  KNO3   20°C 0.10M U        K1=10.53       1964LAa (82232)1689
                                          K(Pb+HL)=7.50
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       ISE KNO3   20°C 0.10M U        K1=19.52       1971ISa (82324)1690
                                          K(Pb+HL)=2.61
--------------------------------------------------------------------------------
Pb++       oth KNO3   20°C 0.10M U        K1=19.5        1965JMb (82325)1691
Method: electrophoresis
--------------------------------------------------------------------------------
Pb++       vlt KNO3   20°C 0.10M U        K1=19.4        1964MNa (82326)1692
********************************************************************************
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
Pb++	ISE	KNO3	20°C	0.10M	U		K1=18.03 K(Pb+HL)=3.61	1971ISa (82412)	1693
Pb++	oth	KNO3	20°C	0.10M	U		K1=17.5	1965JMb (82413)	1694

Method: electrophoresis

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KNO3	20°C	0.10M	U		K1=16.83	1964MNa (82414)	1695

****

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
Pb++	gl	KNO3	20°C	0.10M	U	H	K1=13.86 K(Pb+HL)=8.39	1964ANa (82471)	1696

By calorimetry: DH(K1)=-54.3 kJ mol-1, DS=79.8 J K-1 mol-1

****

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
Pb++	gl	KNO3	25°C	0.10M	U	H		1965WHa (82557)	1697

DH(K1)=-51.0 kJ mol-1, DS=105 J K-1 mol-1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	20°C	0.10M	U	H	K1=15.03 K(Pb+HL)=9.4	1964ANa (82558)	1698

By calorimetry: DH(K1)=-55.0 kJ mol-1, DS=100 J K-1 mol-1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	EMF	KNO3	25°C	0.10M	U		K1=14.4	1960HRa (82559)	1699

****

C12H20N2O10 H4L CAS 10258-50-1 (3993)

(2,3-Dihydroxytetramethylenedinitrilo)tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	oth	oth/un	?	?	U		B(Pb2L)=28.02	1967LDa (82591)	1700

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
Pb++	gl	KNO3	25°C	0.10M	C		K1=12.275 K(Pb(OH)L+H)=9.99	1993CDa (82607)	1701

****

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
Pb++	vlt	KNO3	20°C	0.10M	U		K1=11.24	1985LBc (82702)	1702

****

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
Pb++	gl	KNO3	25°C	0.10M	U		K1=16.6	1975HTa (82740)	1703

By competition with Cd ion.

****

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
Pb++	gl	R4N.X	25°C	0.10M	C		K1=12.434	1992ADa (82795)	1704

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
Pb++	gl	R4N.X	25°C	0.10M	C		K1=14.63	1992ADa (82809)	1705

Medium: 0.1 M Me4NNO3

****

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
Pb++	gl	NaCl	37°C	0.15M	C	M	K1=16.95 B(PbHL)=18.87 B(PbH(edta)L)=29.51	1984MWb (82845)	1706

Method: competition with EDTA. By competition with D-penicillamine,
K1=16.23, B(PbHL)=19.19, B(PbH2L)=20.31.

****

C12H22O11 L Maltose CAS 6363-53-7 (2705)
4-O-alpha-D-Glucopyranosyl-D-glucose, Maltobiose;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	cal	oth/un	22°C	var	C	H	K1=0.78	1999MGa (82881)	1707

DH(K1)=-5.6 kJ mol-1, DS(K1)=-3.9 J K-1 mol-1.

```
**************************************************************************
C12H22O11              L    Trehalose        CAS 6138-23-4  (2700)
D-Glucopyranosyl-D-glucopyranoside;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C  1.0M C                        1975CVa (82901)1708
                                        K(Pb+H2L)=2.26
Additional method: Pb/Hg electrode.
**************************************************************************
C12H22O11              L    Sucrose          CAS 57-50-1  (2523)
beta-D-Fructofuranosyl-alpha-D-glucopyranoside; Saccharose;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Pb++       ISE NaClO4 25°C 1.00M U        K1=2.46        1974CVb (82911)1709
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  R4N.X  25°C 0.10M C        K1=15.66       1992ADa (82976)1710
                                        B(PbHL)=18.02
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
--------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.20M C        K1=9.06        2004FBa (82986)1711
                                        B(PbHL)=15.43
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.20M C        K1=9.80        2004FBa (82996)1712
                                        B(PbHL)=15.41
**************************************************************************
C12H24N4O4           H2L                        (7522)
1,4,8,11-Tetraazacyclotetradecane-6,13-dicarboxylic acid
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Pb++       gl  KCl    25°C 0.50M U        K1=19.0        1997BLd (83104)1713
                                        K(PbL+H)=7.3
                                        K(PbHL+H)=4.2
```

*K(PbL)=-8.0

****

C12H24O4S2 L CAS 296-39-9 (4938)
1,4,10,13-Tetraoxa-7,16-dithiacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	cal	non-aq	25°C	100%	C	H	K1=4.76	1986BUe	(83140)1714

Medium: MeOH. DH(K1)=-34.5 kJ mol-1, DS(K1)=-25 J K-1 mol-1.

****

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
Pb++	ISE	alc/w	25°C	100%	C	IH T	K1=7.0	2003ADa	(83558)1715

IUPAC Tentative. Medium: 0-0.1 M various. DH(K1)=-45 kJ mol-1
In H2O: K1=4.42, DH(K1)=-22. In PC: K1=7.0, DH(K1)=-49.6

Pb++	con	mixed	25°C	90%	C		K1=3.87	2003ISa	(83559)1716

Medium: 90% v/v DMSO/H2O.

Pb++	cal	none	25°C	dil	C	H	K1=4.16	2002BSc	(83560)1717

Self medium, <0.005 M. DH(K1)=-20.2 kJ mol-1, DS(K1)=11 J K-1 mol-1.

Pb++	con	alc/w	25°C	40%	C		K1=6.94	2002ISa	(83561)1718

Medium: 40% EtOH/H2O.

Pb++	cal	none	25°C	0.03M	C	T H	K1=4.71	2002VOa	(83562)1719
							DH(K1)=-21.6 kJ mol-1		

Ionic strength is provided by Pb(NO3)2 used: 0.007-0.05 M.
for 35 C K1=4.59; DH(K1)=-21.0; for 45 C K1=4.47, DH(K1)=-21.5

Pb++	nmr	non-aq	27°C	100%	C	I	K1=7.75	2001KZa	(83563)1720

Method: 7Li nmr; competitive binding study. Medium: nitromethane.
In acetonitrile, K1=4.08

Pb++	vlt	mixed	20°C	0.02M	U	I	K1=10.79	2000RCb	(83564)1721
							K1=4.80 in 100%H2O		

Medium: 0.025 M Et4NCl in 75.78 %mass CH3CN in H2O
For 0.025 M Et4NCl in 79.17% mass DMFA/H2O K1=2.26

Pb++	vlt	mixed	20°C	78%	U		K1=5.80	2000RCb	(83565)1722
							K1=4.80 in 100% H2O		

Medium:0.025 M Et4NCl in 34.78%(mass) propanol in H2O.
for 0.025 M Et4NCl in 34.21% CH3CN in H2O K1=7.06;for 38.8%DMFA K1=4.35

Pb++	vlt	R4N.X	20°C	0.02M	C	I	K1=4.80	2000RCc	(83566)1723

Method: SW polarography. Medium: 0.025 M Et4NCl. By DPP, K1=4.55.
Data for 0-76% w/w PrOH/H2O, 0-76% w/w AN/H2O and 0-79% w/w DMF/H2O.

Pb++ con mixed 25°C 20% C TIH K1=4.07 1999SPc (83567)1724
Medium: 20% w/w AN/DMSO. Data for 20-80% w/w AN/DMSO and 25-55 C.
DH(K1)=-26 kJ mol-1, DS(K1)=-10 J K-1 mol-1.

Pb++ vlt mixed 25°C 90% C K1=6.3 1996SSc (83568)1725
Method: polarography. Medium: 90% w/w CH3CN/H2O.

Pb++ cal none 50°C 0.00 C T H K1=3.98 1995WIa (83569)1726
Method: isothermal flow calorimetry. Measurements at 1.52 MPa. Data for
25-125 C. DH(K1)=-21.5 kJ mol-1, DS(K1)=10 J K-1 mol-1.

Pb++ nmr mixed 30°C 10% U I K1=3.7 1994RAa (83570)1727
Medium: 10% MeCN/H2O. In 50% K1=4.5, 80% K1=5.9

Pb++ ix none 25°C 0.0 U K1=4.0 1991BMb (83571)1728

Pb++ vlt R4N.X 22°C 0.03M C I K1=4.72 1991PSa (83572)1729
Medium: 0.025 M Et4NClO4. Method: differential pulse polarography. Data
for 15-75% w/w CH3CN/H2O, 0.025 M Et4NClO4.

Pb++ vlt alc/w 25°C 100% C K1=7.52 1987CBd (83573)1730
B(Pb2L)=14.78
Medium: methanol, 0.10 M Et4NI or Bu4NClO4. Method: polarography.

Pb++ cal non-aq 25°C 100% C H K1=6.99 1986BUe (83574)1731
Medium: MeOH. DH(K1)=-45 kJ mol-1, DS(K1)=-17.8 J K-1 mol-1.

Pb++ cal non-aq 25°C 100% C H K1=>5.5 1986ICa (83575)1732
Medium: MeOH. DH(K1)=-37.5 kJ mol-1.

Pb++ ISE R4N.X 25°C 0.10M U I K1=3.58 1985BFa (83576)1733

Pb++ nmr non-aq 25°C 100% U K1=3.66 1985BPa (83577)1734
Medium: DMF

Pb++ vlt oth/un RT 0.10M C K1=4.21 1985LAa (83578)1735
Method: dc and ac polarography. Medium: 0.10 M HNO3.

Pb++ cal alc/w 25°C 70% U H K1=6.5 1976ITa (83579)1736
Medium: 70% w/w MeOH/H2O. DH(K1)=-38.5 kJ mol-1.

Pb++ cal oth/un 25°C 0.10M U H T K1=4.27 1976ITb (83580)1737
DH=-21.6 kJ mol-1.

Pb++ vlt R4N.X 25°C 0.10M C H T K1=4.4 1976KKf (83581)1738
DH(K1)=-13.0 kJ mol-1, DS=41 J K-1 mol-1
****
C12H25NO5 L CAS 33941-15-0 (4939)
1,4,7,10,13-Pentaoxa-16-azacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	non-aq	22°C	100%	C	I	K1=7.9	2001MRa	(83710)1739

Medium: DMF, 0.025 M Et4NClO4. Method: differential pulse polarography.
Data for binary mixtures of DMF with MeOH, nitromethane, PrOH, AN.

Pb++	con	mixed	25°C	20%	C	TIH	K1=4.42	1999SPc	(83711)1740

Medium: 20% w/w AN/DMSO. Data for 20-80% w/w AN/DMSO and 25-55 C.
DH(K1)=-27 kJ mol-1, DS(K1)=-8 J K-1 mol-1.

Pb++	gl	alc/w	25°C	95%	U		K1=8.4	1992BDa	(83712)1741

Medium: 95% MeOH, 0.1 M Et4NClO4

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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
Pb++	cal	none	25°C	dil	C	H		2002BSc	(83874)1742

Self medium, <0.005 M. DH(K1)=-47.3 kJ mol-1, DS(K1)=-33 J K-1 mol-1.

Pb++	con	mixed	25°C	20%	C	TIH	K1=4.84	1999SPc	(83875)1743

Medium: 20% w/w AN/DMSO. Data for 20-80% w/w AN/DMSO and 25-55 C.
DH(K1)=-31 kJ mol-1, DS(K1)=-13 J K-1 mol-1.

Pb++	gl	R4N.X	25°C	0.05M	C		K1=6.6	1997BCc	(83876)1744

Medium: 0.05 M Me4NClO4

Pb++	cal	non-aq	25°C	100%	C	H		1986BUe	(83877)1745

Medium: MeOH. DH(K1)=-29.1 kJ mol-1, DS(K1)=76.2 J K-1 mol-1.

Pb++	gl	R4N.X	25°C	0.10M	C		K1=8.39	1985CSb	(83878)1746

Medium: 0.10 M Et4NClO4.

Pb++	ISE	non-aq	25°C	100%	U		K1=4.22	1982NSb	(83879)1747

Medium: DMSO, 0.1 M Et4NClO4

Pb++	gl	NaClO4	25°C	0.50M	U		K1=7.01	1981KMb	(83880)1748

Pb++	sp	non-aq	25°C	100%	U		K1=11.64	1981SMb	(83881)1749
							B(Pb2L)=15.30		

In propylene carbonate, I=0.01 M (Et4NClO4)

Pb++	gl	alc/w	25°C	100%	U		K1=9.48	1980SAa	(83882)1750
							B(Pb2L)=12.30		

Medium: MeOH, 0.1 M Et4NClO4

Pb++	gl	R4N.X	25°C	0.10M	C		K1=6.90	1977ASc	(83883)1751

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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
Pb++	gl	NaNO3	25°C	0.10M	U		K1=7.1		1987HEa	(83944)1752

C12H26OS L CAS 2180-20-3 (5699)
S,S-Dihexylsulfoxide; C6H13.SO.C6H13

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	ISE	non-aq	25°C	100%	U		K1=3.60 B3=8.12 B4=8.92	B2=6.87	1986MMb	(83976)1753

Medium: acetone, Bu4NClO4

C12H26O6 L Pentaglyme CAS 1191-87-3 (2498)
2,5,8,11,14,17-Hexaoxaoctadecane; (CH3.O.CH2.CH2.O.CH2.CH2.O.CH2.)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	cal	none	25°C	dil	C	H			2002BSc	(84015)1754

Self medium, <0.005 M. DH(K1)=<-1 kJ mol-1.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	cal	alc/w	25°C	100%	U	H	K1=2.22		1985BUa	(84016)1755

Medium: MeOH. DH(K1)=-26.4 kJ mol-1

C12H26O7 L Hexa-Et-Glycol CAS 2615-15-8 (5665)
3,6,9,12,15-Pentaoxaheptadecane-1,17-diol

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	cal	none	25°C	dil	C	H	K1=2.02		2002BSc	(84027)1756

Self medium, <0.005 M. DH(K1)=-3.3 kJ mol-1, DS(K1)=28 J K-1 mol-1.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	cal	alc/w	25°C	100%	U	H	K1=3.61		1985BUa	(84028)1757

Medium: MeOH. DH(K1)=-37.5 kJ mol-1

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
Pb++	ISE	non-aq	25°C	100%	U		K1=0.36	B2=0.59	1986MMb	(84033)1758

Medium: acetone, Bu4NClO4

C12H27N3O2 L (7053)
1,4-Dioxa-7,11,15-triazacycloheptadecane;

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M C        K1=7.39        1994CDa (84060)1759
                                          K(PbLOH+H)=8.70
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       vlt NaNO3  25°C  0.1M C        K1=12.22       1996CHa (84090)1760
Method: Differential Pulse Polarography. By potentiometry (gl): K1=11.96
-------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.10M C        K1=11.98       1996LHb (84091)1761
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  KCl    25°C 0.50M U        K1=10.7        1997BLd (84113)1762
                                          K(PbL+H)=6.1
                                          K(PbHL+H)=3.0
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  R4N.X  25°C 0.10M C        K1=14.39       2000PSa (84161)1763
                                          B(PbHL)=21.23
                                          B(PbH2L)=25.89
                                          B(Pb2L)=20.18
                                          B(Pb2HL)=25.40
Medium: 0.10 M [Et4N]NO3.  B(Pb2H-1L)=11.65.
-------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M U        K1=11.78       1996BJa (84162)1764
                                          K(Pb+HL)=8.61
                                          K(Pb+H2L)=4.98
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.10M U        K1=13.91       1990HWa (84178)1765
*************************************************************************
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
Pb++	gl	NaNO3	25°C	0.10M	U		K1=9.29 K(PbL+OH)=4.7	1991LHa (84197)1766	

****

C12H28N4O L (7305)
1-(2-Hydroxyethyl)-1,4,8,11-tetraazacyclotetradecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=8.1 B(PbH-1L)=-0.9	1997RWa (84209)1767	

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
Pb++	gl	NaNO3	25°C	0.10M	U		K1=9.01	1990WHa (84235)1768	
Pb++	gl	NaNO3	25°C	0.10M	C		K1=9.01	1989HBa (84236)1769	

****

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
Pb++	gl	NaNO3	25°C	0.10M	C		K1=9.11 B(PbHL)=14.6 B(PbH2L)=20.65	1989HBa (84244)1770	

****

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
Pb++	gl	NaClO4	25°C	0.20M	M	H	K1=11.6 B(PbHL)=16.9	1978KKb (84260)1771	

DH1=-41.1 kJ mol-1

****

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
Pb++	gl	NaClO4	25°C	0.15M	C		K1=14.13 B(PbHL)=19.86 K(PbL+H)=5.73 K(Pb+HL)=9.71	1993ABc (84346)1772	

```
--------------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.20M C        K1=14.1        1991KKa (84347)1773
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.20M U   H    K1=14.1        1980KKb (84348)1774
DH=-55.6 kJ mol-1, DS=84 J K mol-1
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  KCl    25°C 0.50M U        K1=10.8        1997BLd (84379)1775
                                         K(PbL+H)=7.5
                                         K(PbHL+H)=4.1
--------------------------------------------------------------------------------
Pb++       gl  KCl    25°C 0.50M U        K1=11.8        1994LLb (84380)1776
                                         K(PbL+H)=6.0
                                         K(PbH-1L+H)=7.7
Data are for the syn isomer.  For the anti isomer, K1=10.8, K(PbL+H)=7.5,
K(PbHL+H)=4.1.
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M C        K1=16.99       1995BLa (84389)1777
                                         B(PbHL)=18.95
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C  1.0M U        K1=23.3        1984KMb (84418)1778
                                         K(Pb+HL)=19.4
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.15M C        K1=9.972       1993ABc (84429)1779
                                         B(PbHL)=19.259
                                         B(PbH2L)=25.975
                                         B(PbH-1L)=-1.21
                                         K(Pb+HL)=8.98
K(PbL+H)=9.29, K(Pb+H2L)=6.18.
```

****
C13H9NOS HL CAS 3411-95-8 (1683)
2-(2-Hydroxyphenyl)benzothiazole;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl diox/w 25°C 50% U K1=7.30 B2=13.27 1954CFa (84554)1780
****
C13H9NO2 HL (3403)
2-(2'-Hydroxyphenyl)benzoxazole;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl diox/w 25°C 50% U K1=7.7 B2=13.8 1954CFa (84567)1781

Pb++ gl diox/w 25°C 50% U K1=7.65 B2=13.65 1952FRb (84568)1782
****
C13H10NO2Cl HL CAS 78154-49-1 (5649)
N-3-Chlorophenylbenzohydroxamic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl diox/w 30°C 50% U K1=9.32 B2=17.02 1994JBb (84741)1783
Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4.
****
C13H10N2O5S H2L CAS 98789-35-6 (5012)
4-Hydroxy-3-formylazobenzene-4'-sulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ EMF alc/w 25°C 42% U 1972DSc (84922)1784
K(Pb+HL=PbL+H)=4.08
K(PbL+HL=PbL2+H)=3.51
Medium: 42% EtOH, 0.2 M NaClO4
****
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
---
Pb++ gl diox/w 30°C 75% U K1=11.33 B2=20.71 1971DTc (85058)1785
****
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
---
Pb++ gl diox/w 30°C 50% U K1=9.40 B2=17.28 1994JBb (85170)1786
Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4.
****

C13H11NO3 H2L CAS 156357-28-7 (8319)
N-(p-Hydroxyphenyl)benzohydroxamic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	diox/w	30°C	50%	U		K1=9.07	B2=16.35	1994JBb	(85201)1787

Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4.
For N-(m-hydroxyphenyl)benzohydroxamic acid, K1=8.64, K2=7.02.

****

C13H11N3O5S H3L (5019)
4-Hydroxy-3-oximinomethylazobenzene-4'-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	alc/w	25°C	50%	U		K1=3.65	B2=6.88	1973DSa	(85300)1788

Medium: 42% EtOH, 0.2 M NaClO4

****

C13H11N5O10S2 H5L (5020)
1,5-Bis(2-hydroxy-5-sulfophenyl)-3-nitroformazan;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	NaNO3	20°C	0.10M	U		K1=15.59		1971SEa	(85320)1789

****

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
Pb++	sp	NaClO4	25°C	0.10M	U		K1=7.31	B2=14.16	1973BSe	(85468)1790
Pb++	dis	NaClO4	?	0.10M	U		K1=12.46	B2=19.15	1968ANb	(85469)1791
Pb++	dis	oth/un	?	0.10M	U	M	B2=15.85? Kso=-23.7		1964MSb	(85470)1792

Ternary complexes with diethyldithiocarbamic acid

****

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
Pb++	gl	KCl	25°C	0.20M	U		K1=4.37	1992CMd	(85538)1793

****

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
Pb++	gl	KCl	25°C	0.20M	U		K1=3.32	1992CMd	(85546)1794

```
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  diox/w 25°C  60%  U        K1=9.05   B2=15.10  1981KTa (85860)1795
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  diox/w 25°C  60%  U        K1=8.55   B2=13.74  1981KTa (85869)1796
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  diox/w 25°C  60%  U        K1=8.80   B2=15.67  1981KTa (85893)1797
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  diox/w 25°C  60%  U        K1=10.47  B2=18.07  1981KTa (85945)1798
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M U T H    K1=3.32        1980SKa (85976)1799
In 50% v/v dioxan. Temperature range 25-45C. At 35C, DH=-19.0 and DS=-0.4.
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C  1.0M C        K1=7.81   B2=13.00  1981ASb (85992)1800
                                        B(PbH-1L)=-0.18
**************************************************************************
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
Pb++	gl	KNO3	25°C	0.10M	U		K1=5.8 B2=9.3	1987CSb (86015)	1801

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
Pb++	gl	KNO3	25°C	0.10M	U		K1=5.8	1987CSb (86033)	1802

C13H20N2O4S HL CAS 2130-76-9 (5024)
4-Toluenesulfonyl lysine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KCl	25°C	0.10M	U		B2=9.74	1968RFa (86100)	1803

C13H20N2O10 H5L CAS 88897-18-1 (1082)
1-Carboxy-1,4-diaminobutane-N,N,N',N'-tetraethanoic acid;
(HOOCCH2)2NCH(COOH)(CH2)3N(CH2COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	U		K1=11.15 K(Pb+HL)=10.27 K(Pb+H2L)=5.34 B(Pb2L)=18.97 K(PbHL+H)=2.89 K(PbL+H)=9.66	1986MGc (86133)	1804

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
Pb++	gl	KNO3	25°C	0.10M	C		K1=6.74 *K(PbL)=-9.03	2001CDb (86167)	1805

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
Pb++	gl	KNO3	20°C	0.10M	U		K(Pb+HL)=7.83	1964ANa (86202)	1806

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
-------------------------------------------------------------------------
Pb++       vlt KNO3   20°C 0.10M U        K1=19.26       1974NLa (86233)1807
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  KNO3   20°C 0.10M U        K1=12.65       1981NSc (86261)1808
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       vlt KNO3   20°C 0.10M U        K1=19.17       1968NLb (86288)1809
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M C        K1=9.715       1993CDa (86325)1810
                                          K(Pb(OH)L+H)=10.948
*************************************************************************
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
-------------------------------------------------------------------------
Pb++       gl  R4N.X  25°C 0.10M C         K1=11.56       1998CCd (86414)1811
                                          K(PbL+H)=3.58
                                          *K(PbL)=-10.31
Medium: 0.10 M Me4NNO3.
*************************************************************************
C13H26O5               L                            (6410)
15,15-Dimethyl-1,4,7,10,13-pentaoxacyclohexadecane;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       con none   25°C  0.0  C        K1=0.65        2001KMb (86483)1812
*************************************************************************
C13H26O6               L    19-Crown-6       CAS 55471-27-7  (8943)
1,4,7,10,13,16-Hexaoxacyclononadecane;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       con oth/un 25°C  dil  C        K1=2.38        1999TMa (86502)1813
```

Self medium (Pb(NO3)2).
****
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
Pb++	gl	KNO3	25°C	0.10M	U		K1=6.61		1991ACa	(86549)1814
							B(PbH-1L)=-2.22			
							K(PbL+OH)=4.99			

****
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
Pb++	gl	R4N.X	25°C	0.10M	C		K1=9.7		1999DWa	(86568)1815
							K(Pb+HL)=5.2			
							K(PbL=PbH-1L+H)=-11.0			

Medium: 0.1 M NEt4ClO4
****
C14H8O6 H4L Quinalizarin CAS 81-61-8 (1056)
1,2,5,8-Tetrahydroxyanthraquinone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	sp	alc/w	30°C	50%	U				1967SBb	(86683)1816
							K(?)=4.1			

Medium: 50% EtOH
****
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
Pb++	ISE	NaClO4	30°C	0.10M	C		K1=13.62		1991KCa	(86748)1817

Method: Pb ion selective electrode. By spectrophotometry: K1=13.51

Pb++	gl	NaClO4	30°C	0.0	U	I	K1=11.11	B2=16.12	1972GDa	(86749)1818

I=0.02: K1=11.19, K2=5.05; 0.05: K1=11.22, K2=5.13;
0.15: K1=11.23, K2=5.28; 0.2: K1=11.36, K2=5.60

Pb++	sp	oth/un	25°C	?	U		K1=6.0		1959DBb	(86750)1819

Pb++	sp	oth/un	28°C	?	U		K1=4.7		1957MDa	(86751)1820

****
C14H11NO4 H2L CAS 156357-30-1 (8320)
N-(p-Carboxyphenyl)benzohydroxamic acid;

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

---
Pb++ gl diox/w 30°C 50% U K1=8.55 B2=15.60 1994JBb (86977)1821
Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4.
For N-(o-carboxyphenyl)benzohydroxamic acid, K1=8.18, K2=6.73.
****
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
---
Pb++ gl NaNO3 20°C 0.10M U K1=13.99 1971SEa (87020)1822
****
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
---
Pb++ gl diox/w 30°C 75% U 1957SFb (87220)1823
K(Pb+H2L=PbL+2H)=-8.2

Pb++ gl diox/w 30°C 75% U K1=12.14 1952SNa (87221)1824
****
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
---
Pb++ gl diox/w 30°C 50% U K1=10.36 B2=19.32 1994JBb (87449)1825
Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4.
****
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
---
Pb++ gl diox/w 30°C 50% U K1=10.34 B2=19.02 1994JBb (87481)1826
Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4.
****
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
---
Pb++ gl NaClO4 25°C 0.10M U K1=2.69 B2=4.65 1979POa (87637)1827
****
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
---

```
Pb++       dis non-aq 25°C 100%  C    M                  2001OHb (87680)1828
Method: distribution from buffered 0.10 M NaCl into nitrobenzene.
K(Pb+3L(org)+2A=PbL3A2(org))=14.7. HA is picric acid.
**************************************************************************
C14H14N4OBr2           HL                     CAS 35601-32-2  (5092)
5-(3,5-Dibromo-2-pyridylazo)-2-ethylamino-4-hydroxy-1-methylbenzene;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Pb++       sp  oth/un   ?     ?  U        K1=6.26        1967GUa (87687)1829
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.50M C        K1=13.14  B2=15.52  2002SEa (87749)1830
                                         B(PbHL)=15.44
                                         B(PbH-1L)=2.68
                                         B(PbH2L2)=25.28
                                         B(PbHL2)=20.77
B(Pb2H2L)=18.80, B(Pb2L)=14.85.
**************************************************************************
C14H15N4OBr            HL                     CAS 14337-50-9  (5095)
5-(5-Bromo-2-pyridylazo)-2-ethylamino-4-hydroxy-1-methylbenzene;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Pb++       sp  oth/un   ?     ?  U                       1967GUa (87767)1831
                                         K(?)=6.35
**************************************************************************
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
--------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.50M C        K1=13.89  B2=16.52  2002SEa (87964)1832
                                         B(PbHL)=16.20
                                         B(PbH-1L)=3.08
                                         B(PbH2L2)=26.64
                                         B(PbHL2)=22.58
B(Pb2H2L)=20.78, B(Pb2L)=16.06, B(Pb2H-1L)=9.37.
--------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 1.00M C   H    K1=13.89       1992ANb (87965)1833
By calorimetry: DH(K1)=-34.8 kJ mol-1, DS=149 J K-1 mol-1
**************************************************************************
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
```

Pb++ gl NaNO3 25°C 0.10M C K1=9.55 1995CCb (88116)1834
B(Pb(OH)L)=12.92
From differential pulse polarography: K1=9.55; B(Pb(OH)L)=13.22;
B(Pb(OH)2L)=15.04
****
C14H20O3 HL CAS 100864-12-8 (309)
2-Phenoxyoctanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ dis non-aq 24°C 100% C 1999HSa (88197)1835
K=5.23
By solvent extraction into CHCl3 at pH 3.0-7.0. For 2-(2'-methoxyphenyl-
oxy)octanoic acid, K=5.57. K: Pb(aq)+2HL(org)=PbL2(org)+2H(aq).
****
C14H20O5 L Benzo15-crown-5 CAS 14098-44-3 (608)
2,3-Benzo-1,4,7,10,13-pentaoxacyclopentadeca-2-ene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ con mixed 25°C 90% C K1=2.53 2003ISa (88351)1836
Medium: 90% v/v DMSO/H2O.

Pb++ con alc/w 25°C 40% C K1=2.68 2002ISa (88352)1837
Medium: 40% EtOH/H2O.

Pb++ vlt mixed 25°C 90% C K1=3.3 1996SSc (88353)1838
Method: polarography. Medium: 90% w/w CH3CN/H2O.

Pb++ cal non-aq 25°C 100% C H K1=2.36 1986ICa (88354)1839
Medium: MeOH. DH(K1)=-21.5 kJ mol-1, DS(K1)=-27.0 J K-1 mol-1.

Pb++ vlt oth/un RT 0.10M C K1=2.76 1985LAa (88355)1840
Method: dc and ac polarography. Medium: 0.10 M HNO3.

Pb++ cal alc/w 25°C 70% U H K1=2.04 1976ITa (88356)1841
Medium: 70% w/w MeOH/H2O. DH(K1)=-21.4 kJ mol-1.
****
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
---
Pb++ gl KNO3 25°C 0.10M U K1=20.24 1983FSa (88743)1842

Pb++ sp oth/un ? ? U 1969KBb (88744)1843
K(Pb+H2L)=6.74

Pb++ sp NaClO4 20°C 0.10M U K1=21.28 1969NKa (88745)1844

K(Pb+HL)=11.47

Pb++ vlt oth/un 30°C 1.0M U TI K1=19.16 1965JGb (88746)1845
K1=19.60(I=0.1). At 40 C, I=0.1: K1=19.32

Pb++ cal KNO3 25°C 0.10M U H 1965WHa (88747)1846
DH(K1)=-51.8 kJ mol-1, DS=197 J K-1 mol-1

Pb++ cal KNO3 20°C 0.10M U T H 1963ANb (88748)1847
DH(K1)=-47.5 kJ mol-1, DS=227 J K-1 mol-1

Pb++ cal KNO3 20°C 0.10M U H K1=20.33 1963ANf (88749)1848
DH(K1)=-47.5 kJ mol-1, DS=226 J K-1 mol-1

Pb++ dis NaClO4 20°C 0.10M U K1=19.5 1963STc (88750)1849

Pb++ vlt KNO3 20°C 0.10M U K1=19.68 1954SGa (88751)1850
K(PbL+H)=5.18

****

C14H22N2O9 H4L CAS 66918-19-2 (395)
2,5-Bis(aminomethyl)tetrahydrofuran-N,N,N',N'-tetraethanoic acid;

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

---

Pb++ gl NaNO3 25°C 0.10M U K1=14.30 1977PIb (88890)1851

****

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

---

Pb++ gl KNO3 25°C 0.10M U K1=11.37 1983NGb (88899)1852
K(Pb+HL)=10.59
K(Pb+H2L)=4.96
K(PbHL+H)=3.08
K(PbL+H)=9.91
B(Pb2L)=19.25

****

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

---

Pb++ gl diox/w 24°C 50% U K1=8.6 1979ACa (88993)1853

****

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

```
--------------------------------------------------------------------------------
Pb++       vlt KNO3   25°C 0.10M C        K1=18.90       2001CKb (89348)1854
Method: cyclic voltammetry. Medium: pH 10.
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 20°C  1.0M C    M                  1993BNb (89349)1855
                                        K(Pb+2H+CrL)=11.38
                                        K(Pb+H+CrL)=9.02
                                        K(Pb+CrL)=5.85
                                        K(PbCrLOH+H)=5.25
Cr=Cr(III)
--------------------------------------------------------------------------------
Pb++       vlt NaClO4 25°C 0.20M U        K1=19.1        1972LWa (89350)1856
--------------------------------------------------------------------------------
Pb++       sp  NaClO4 20°C 0.10M U        K1=20.56       1969NKa (89351)1857
                                        K(Pb+HL)=14.60
--------------------------------------------------------------------------------
Pb++       cal KNO3   20°C 0.10M U T H                   1965ANa (89352)1858
DH(K1)=-78.6 kJ mol-1, DS=91.1 J K-1 mol-1
--------------------------------------------------------------------------------
Pb++       cal KNO3   25°C 0.10M U   H                   1965WHa (89353)1859
DH(K1)=-78.6 kJ mol-1, DS=92 J K-1 mol-1
--------------------------------------------------------------------------------
Pb++       EMF KNO3   25°C 0.10M U        K1=18.6        1960HRa (89354)1860
--------------------------------------------------------------------------------
Pb++       EMF oth/un 20°C 0.10M U        K1=19.05       1959ANd (89355)1861
                                        K(PbL+Pb)=3.41
                                        K(Pb+HL)=12.81
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       gl  R4N.X  25°C 0.10M C        K1=9.9         2004BBe (89460)1862
                                        K(PbL+H)=5.2
                                        K(PbL+OH)=3.2
Medium: 0.1 M Me4NO3
********************************************************************************
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
--------------------------------------------------------------------------------
Pb++       vlt KNO3   20°C 0.10M U        K1=16.46       1969NDc (89516)1863
********************************************************************************
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
--------------------------------------------------------------------------------
```

Pb++ vlt KNO3 20°C 0.10M U K1=19.27 1974NLa (89536)1864
****
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
---
Pb++ sp oth/un ? ? U 1971KAa (89594)1865
K(Pb+HL)=8.57

Pb++ gl KNO3 20°C 0.10M U H 1964ANa (89595)1866
K(Pb+HL)=8.24
By calorimetry: DH(Pb+L+H2O=Pb(OH)(HL))=-31.5 kJ mol-1
****
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
---
Pb++ vlt KNO3 20°C 0.10M U K1=19.29 1968NLb (89639)1867
****
C14H24N2O10 EGTA CAS 67-42-5 (349)
Ethyleneglycol-O,O'-bis(2-aminoethyl ether)-N,N,N',N'-tetraethanoic acid; H4L

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl KNO3 25°C 0.10M U 1983FSa (89910)1868
K(Pb+HL)=10.28

Pb++ vlt NaNO3 25°C 0.30M U K1=8.55 1974KNc (89911)1869

Pb++ sp NaClO4 20°C 0.10M U K1=14.84 1969NKa (89912)1870

Pb++ cal KNO3 25°C 0.10M U H 1965WHa (89913)1871
DH(K1)=-52.3 kJ mol-1, DS=104.5 J K-1 mol-1

Pb++ gl KNO3 20°C 0.10M U H K1=11.8 1964ANa (89914)1872
K(Pb+HL)=7.5
K(Pb+PbL)=4.6
By calorimetry: DH(K1)=-55.2 kJ mol-1, DS=38.0 J K-1 mol-1

Pb++ gl KNO3 20°C 0.10M U K1=14.71 1963FCa (89915)1873
K(Pb+HL)=10.28

Pb++ EMF KNO3 25°C 0.10M U K1=14.6 1960HRa (89916)1874
****
C14H24N4 L CAS 106202-21-5 (6711)
7-Methyl-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
Pb++	gl	KNO3	25°C	0.10M	C		K1=9.029	1993CDa (90000)	1875

****

C14H26N2O7 H2L (1567)
1,4,10-Trioxa-7,13-diazacyclopentadecane-N,N'-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=13.255 B(Pb2L)=15.69	1987DDb (90201)	1876
Pb++	gl	R4N.X	25°C	0.10M	M		K1=12.91	1986COb (90202)	1877

****

C14H27N3O5 H2L (6473)
1-Oxa-4,8,12-triazacyclotetradecane-4,12-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	U		K1=8.01 B(PbHL)=14.41	1992CDa (90288)	1878

Medium: 0.10 M (NMe4)NO3.

****

C14H28N2O4 L Cryptand 2,1,1 CAS 31250-06-3 (836)
1,10-Diaza-4,7,13,18-tetraoxabicyclo[8,5,5]eicosane (2,1,1);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	cal	none	25°C	dil	C	H		2002BSc (90423)	1879

Self medium, <0.005 M. DH(K1)=-42.0 kJ mol-1, DS(K1)=0.3 J K-1 mol-1.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.05M	C		K1=7.4	1997BCc (90424)	1880

Medium: 0.05 M Me4NClO4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	non-aq	25°C	100%	U		K1=3.68	1982NSb (90425)	1881

Medium: DMSO, 0.1 M Et4NClO4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	sp	non-aq	25°C	100%	U		K1=7.01 B(Pb2L)=11.30	1981SMb (90426)	1882

In propylene carbonate, I=0.01 M (Et4NClO4)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	alc/w	25°C	100%	C		K1=8.18 B(Pb2L)=12.22	1980SAa (90427)	1883

Medium: MeOH, 0.05 M Et4NClO4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	EMF	non-aq	25°C	100%	C		K1=7.9	1979BLb (90428)	1884

Method: Ag electrode; competition with Ag+. Medium: MeOH, 0.05 M Me4NClO4.

****

C14H28N2O6 HL CAS 82353-42-2 (5850)

1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7-ethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=10.42	1988CCc (90485)	1885

****

C14H28O7 L 21-Crown-7 CAS 33089-36-0 (2264)
1,4,7,10,13,16,19-Heptaoxacycloheneicosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	cal	non-aq	25°C	100%	C	H	K1=3.76	1986ICa (90534)	1886

Medium: MeOH. DH(K1)=-20.6 kJ mol-1, DS(K1)=2.8 J K-1 mol-1.

****

C14H30N2O4 L CAS 31255-13-7 (2448)
N,N'-Dimethyl-cyclo-1,10-diaza-4,7,13,16-tetraoxaoctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	oth/un	25°C	?	C		K1=7.79	1991DMa (90586)	1887

****

C14H30N2O4 L (6566)
N,N,N',N'-Tetrakis(2-hydroxyethyl)-trans-1,2-diaminocyclohexane;
C6H10(N(CH2.CH2OH)2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	C		K1=6.49	1991DCa (90597)	1888
							K(PbL+OH)=5.55		

****

C14H30N2O5 L (6722)
7,13-Bis(2-hydroxyethyl)-1,4,10-trioxa-7,13-diazacyclopentadecane

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=8.91	1995LLa (90633)	1889

Medium: Et4NClO4

****

C14H30N4O L (7383)
1-(2-Hydroxycyclohexyl)-1,4,7,10-tetraazacyclododecane; HO.C6H10.C8H11N4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	C		K1=11.40	1997DHa (90648)	1890

****

C14H30N4O2 L (6364)
1,7,10,16-Tetraaza-4,13-dioxabicyclo[14.2.2]eicosane;

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

Pb++ gl NaNO3 25°C 0.10M U K1=5.36 1990WHa (90659)1891
****
C14H30O7 L CAS 1072-40-8 (2499)
2,5,8,11,14,17,20-Heptaoxaheneicosane; CH3.O.(CH2.CH2.O)6.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ cal none 25°C dil C H K1=2.08 2002BSc (90705)1892
Self medium, <0.005 M. DH(K1)=-3.0 kJ mol-1, DS(K1)=30 J K-1 mol-1.

Pb++ cal alc/w 25°C 100% U H K1=2.22 1985BUa (90706)1893
Medium: MeOH. DH(K1)=-38.9 kJ mol-1
****
C14H32N2O4 L CAS 102-60-3 (2678)
Tetra(2-hydroxypropyl)-N,N,N',N'-diaminoethane;(-CH2.N(CH2.CH(OH).CH3)2)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaNO3 25°C 0.50M U K1=7.51 1995CMa (90747)1894
B(PbHL)=11.3
B(PbH-1L)=13.00

Pb++ gl NaNO3 25°C 0.10M U K1=7.66 1986HBc (90748)1895

Pb++ gl NaClO4 25°C 0.50M C K1=7.87 1979OSb (90749)1896
B(PbH-1L)=-0.42
B(PbH-2L)=-11.26

Pb++ gl oth/un 27°C 0.05M U K1=7.49 1959KEc (90750)1897
****
C14H32N2O10P2 H4L CAS 81963-60-2 (7240)
1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diyldimethylenediphosphonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M C K1=14.26 2000PSa (90769)1898
B(PbHL)=22.08
B(PbH2L)=27.04
B(PbH3L)=30.11
B(Pb2L)=19.84
Medium: 0.10 M [Et4N]NO3. B(Pb2H-1L)=11.56, B(Pb2H-2L)=0.76.

Pb++ gl KNO3 25°C 0.10M U K1=13.06 1996BJa (90770)1899
K(Pb+HL)=10.95
K(Pb+H2L)=6.81
****
C14H32N4O2 L CAS 252191-60-9 (7608)
1,4-Bis(3-hydroxypropyl)-1,4,7,10-tetraazacyclododecane;

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

```
--------------------------------------------------------------------------------
Pb++       gl  R4N.X  25°C 0.10M C        K1=13.5        1999DWa (90818)1900
                                          K(PbL=PbH-1L+H)=-10.4
Medium: 0.1 M NEt4ClO4
********************************************************************************
C14H33N5O2              L                        (6916)
1,4-Dioxa-7,10,13,16,19-pentaazacycloheneicosane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.15M C        K1=11.86       1994ABa (90831)1901
                                          K(PbL+H)=6.35
********************************************************************************
C14H34N6                L                        (7075)
1,10-Dimethyl-1,4,7,10,13,16-hexaazacyclooctadecane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.15M C        K1=14.47       1996BBa (90856)1902
********************************************************************************
C14H36N4O12P4         H8L                     CAS 107446-90-2  (2015)
1,4,7,11-Tetraazacyclotetradecane-N,N',N",N"'-tetramethylphosphonic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 1.00M U        K1=15.5        1987PBa (90877)1903
                                          K(Pb+HL)=13.9
                                          K(Pb+H2L)=12.1
                                          K(Pb+H3L)=9.2
********************************************************************************
C14H36N6                L    TAPEN              CAS 4879-98-5  (5715)
N,N,N',N'-Tetrakis(3-aminopropyl)diaminoethane; (-CH2.N(CH2.CH2.CH2.NH2)2)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.15M C        K1=7.66        1994ABd (90900)1904
                                          K(PbL+H)=9.97
                                          K(PbHL+H)=9.22
                                          K(PbH2L+H)=8.12
********************************************************************************
C14H37N7                L                        CAS 298-85-5  (5606)
1,4,7,10,13,16,19-Heptaazacycloheneicosane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.15M C        K1=10.02       1993ABc (90916)1905
                                          B(PbHL)=18.06
                                          B(PbH2L)=25.65
                                          B(PbH3L)=31.88
                                          K(Pb+HL)=8.30
```

K(Pb+H2L)=6.61, K(Pb+H3L)=4.21, K(PbL+H)=8.0, K(PbHL+H)=7.6, K(PbH2L+H)=6.2.
****
C14H37N7 L (6456)
2,5,8,11,14,17,20-Heptaazaheneicosane; CH3.(NH.(CH2)2)6.NH.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	NaClO4	25°C	0.15M	C		K1=9.86		1993ABc	(90927)1906
							B(Pb2L)=15.61			
							B(Pb2H-1L)=6.67			
							B(Pb2H-2L)=-3.67			
							B(PbHL)=19.47			

B(PbH2L)=27.050, K(Pb+HL)=9.27, K(Pb2L+OH)=4.79, K(Pb2L(OH)+OH)=3.39.
****
C15H10O7 H5L Quercetin CAS 117-39-5 (5101)
3,5,7-Trihydroxy-2-(3',4'-dihydroxyphenyl)-1-benzopyran-4-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	sp	alc/w	25°C	50%	C				1998KBc	(91024)1907
							K1eff=6.05 (pH=5.0)			

Medium: 50% EtOH/H2O, 0.10 M NaNO3.
****
C15H11NS HL CAS 15759-12-3 (5689)
2-Phenyl-8-mercaptoquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	EMF	non-aq	25°C	100%	U		K1=8.3	B2=15.50	1986UBa	(91090)1908

Medium: dimethylformamide, LiClO4
****
C15H11NS HL CAS 75955-26-9 (5690)
4-Phenyl-8-mercaptoquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	EMF	non-aq	25°C	100%	U		K1=8.6	B2=15.00	1986UBa	(91095)1909

Medium: dimethylformamide, LiClO4
****
C15H11NS2 HL CAS 100549-76-6 (5692)
5-Thiophenyl-8-mercaptoquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	EMF	non-aq	25°C	100%	U		K1=8.3	B2=14.80	1986UBa	(91101)1910

Medium: dimethylformamide, LiClO4
****
C15H11N3O HL CAS 4312-09-8 (989)
5-Phenylazo-8-hydroxyquinoline; C6H5.N:N.C9H5N.OH

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       gl  diox/w 25°C  50%  U        K1=8.6    B2=15.09  1965TFa (91270)1911
Medium: 50% dioxan, 0.1 M NaClO4
*************************************************************************
C15H11N3O2           H2L                        (4062)
8-Hydroxy-5-(2'-hydroxyphenylazo)quinoline;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       gl  diox/w 25°C  50%  U        K1=8.5    B2=15.04  1965TFa (91281)1912
Medium: 50% dioxan, 0.1 M NaClO4
*************************************************************************
C15H11N3O2           H2L                      CAS 4563-87-5  (4063)
8-Hydroxy-5-(3'-hydroxyphenylazo)quinoline;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       gl  diox/w 25°C  50%  U        K1=8.8    B2=15.05  1965TFa (91288)1913
Medium: 50% dioxan, 0.1 M NaClO4
*************************************************************************
C15H11N3O2           H2L                      CAS 5087-35-4  (4064)
8-Hydroxy-5-(4'-hydroxyphenylazo)quinoline;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       gl  diox/w 25°C  50%  U        K1=9.2    B2=16.00  1965TFa (91295)1914
Medium: 50% dioxan, 0.1 M NaClO4
*************************************************************************
C15H12OS              HL                         (1261)
mono-Thiodibenzoylmethane; C6H5.CO.CH2.CS.C6H5
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       gl  diox/w 30°C  74%  U        K1=7.13   B2=14.21  1969LSa (91498)1915
Medium: 74.5% dioxan, 0.018 M NaCl
With medium (0.017 NaClO4,74.5% dioxan): B2=17.4
-------------------------------------------------------------------------
Pb++       gl  diox/w 30°C  75%  U        K1=10.11  B2=19.72  1969UTa (91499)1916
Medium: 75% dioxan, 0.01 M  Me4NI
-------------------------------------------------------------------------
Pb++       gl  diox/w 30°C  75%  U        K1=10.20  B2=19.15  1966USa (91500)1917
*************************************************************************
C15H12O2              HL    Diphenylacac     CAS 120-46-7  (362)
1,3-Diphenylpropane-1,3-dione, Dibenzoylmethane; C6H5.CO.CH2.CO.C6H5
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       gl  diox/w 30°C  75%  U        K1=9.75   B2=18.79  1953UFe (91558)1918
*************************************************************************
```

C15H14N4O9S2 H5L CAS 63087-10-5 (5133)
1,5-Bis(2-hydroxy-5-sulfophenyl)mesoacetylformazan;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	20°C	0.10M	U		K1=14.62	1971SEa (91751)	1919

****
C15H18N2O8 H4L CAS 101455-18-9 (1902)
1-Methyl-3,4-diaminobenzene-N,N,N',N'-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	0.50M	C		K1=14.00 B(PbHL)=16.42 B(PbH-1L)=4.6 B(PbH2L2)=27.36 B(PbHL2)=22.74	2002SEa (92086)	1920

B(Pb2H2L)=19.65, B(Pb2L)=15.77.
****
C15H20N4 L DPTN CAS 63671-70-5 (1851)
N,N'-Bis-(2-pyridylmethyl)-1,3-diaminopropane; (C5H4N.CH2.NH.CH2)2CH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	C		K1=5.89 B(Pb(OH)L)=11.18	1995CCb (92184)	1921

From differential pulse polarography: K1=6.08; B(Pb(OH)L)=10.70
****
C15H24N2O9 H4L CAS 66918-20-5 (396)
2,6-Bis(aminomethyl)tetrahydropyran-N,N,N',N'-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	U		K1=14.87 K(Pb+HL)=18.66	1977PIb (92332)	1922

****
C15H26N4O L (7722)
1,4,7,10-Tetraaza[12]-(2,6)anisolephane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.15M	C		K1=8.44 K(PbL+H)=6.80	2000FFa (92424)	1923

Medium: 0.15 M Me4NCl.
****
C15H27N3O7 H3L (7396)
4,7,11-Tris(carboxymethyl)-1-oxa-4,7,11-triazacyclotridecane;

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

Pb++ gl R4N.X 25°C 0.10M C K1=17.032 1997CCa (92480)1924
K(PbL+H)=3.47
K(PbHL+H)=2.23
Medium: Me4NNO3
****
C15H30N2O3 L CAS 72640-82-5 (6040)
4,7,13-Trioxa-1,10-diazabicyclo[8.5.5]eicosane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M C I K1=8.3 1991DLa (92527)1925
B(PbHL)=15.6
B(Pb(OH)L)=13.7
In 95% v/v MeOH/H2O: K1=7.6, B(PbHL)=14.5, B(Pb(OH)L)=15.2
****
C15H30N2O6 HL (5853)
1,10-Diaza-4,7,13,16-tetraoxacyclooctadecane-N-3-propanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M C K1=8.09 1988CCc (92532)1926
****
C15H32N4O4 H2L (8283)
2,12-Dimethyl-5,9-di(methylcarboxy)-2,5,9,12-tetraazatridecane
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl KNO3 25°C 0.10M C K1=10.03 1989HAa (92557)1927
K(PbL+H)=7.5
****
C16H9N2OBr3 HL CAS 84317-74-8 (5169)
1-(2,4,6-Tribromophenylazo)-2-hydroxynaphthalene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl mixed 25°C 75% U K1=6.54 B2=11.48 1972MCb (92660)1928
Medium: 75% acetone, 0.1 M KNO3
****
C16H11N2OBr HL CAS 7150-24-5 (5172)
1-(4-Bromophenylazo)-2-hydroxynaphthalene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl mixed 25°C 75% U K1=7.22 B2=13.35 1972MCb (92701)1929
Medium: 75% acetone, 0.1 M KNO3
****
C16H11N2OCl HL CAS 24390-65-6 (5170)
1-(2-Chlorophenylazo)-2-hydroxynaphthalene;

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

---
Pb++ gl mixed 25°C 75% U K1=6.83 B2=12.49 1972MCb (92716)1930
Medium: 75% acetone, 0.1 M KNO3
****
C16H11N2OCl HL CAS 10149-93-6 (5171)
1-(4-Chlorophenylazo)-2-hydroxynaphthalene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl mixed 25°C 75% U K1=7.20 B2=13.44 1972MCb (92731)1931
Medium: 75% acetone, 0.1 M KNO3
****
C16H11N2OI HL CAS 25023-35-2 (5173)
1-(4-Iodophenylazo)-2-hydroxynaphthalene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl mixed 25°C 75% U K1=7.46 B2=13.82 1972MCb (92746)1932
Medium: 75% acetone, 0.1 M KNO3
****
C16H11N2O2Cl H2L CAS 3566-94-7 (3474)
1-(5-Chloro-2-hydroxyphenylazo)-2-hydroxynaphthalene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl diox/w 30°C 75% U K1=14.85 1957SFb (92763)1933
K(Pb+H2L=PbL+2H)=-9.3
****
C16H11N3O3 HL CAS 6410-09-9 (5151)
1-(2-Nitrophenylazo)-2-hydroxynaphthalene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl mixed 25°C 75% U K1=3.80 1972MCb (92800)1934
Medium: 75% acetone, 0.1 M KNO3
****
C16H11N3O3 HL CAS 6410-46-1 (5152)
1-(4-Nitrophenylazo)-2-hydroxynaphthalene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl mixed 25°C 75% U K1=4.52 B2=8.34 1972MCb (92815)1935
Medium: 75% acetone, 0.1 M KNO3
****
C16H11N3O3S HL CAS 35778-69-9 (4090)
Diphenylthiovioluric acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl diox/w 30°C 75% U K1=3.84 1973CSb (92827)1936

Medium: 75% dioxan, 0.1 M NaClO4

****

C16H11N3O4 HL (2910)
1,3-Diphenyl-5-hydroxyimino-hexahydropyrimidine-2,4,6-trione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	diox/w	30°C	75%	C		K1=4.28	B2=8.25	1978MGb (92836)	1937

****

C16H11N3O4 H2L CAS 14847-54-2 (3461)
1-(2-Hydroxy-5-nitrophenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	diox/w	30°C	75%	U		K1=13.45		1957SFb (92845)	1938
							K(Pb+H2L=PbL+2H)=-7.8			

****

C16H12N2O HL CAS 842-07-9 (5156)
1-Phenylazo-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	mixed	25°C	75%	U		K1=8.44	B2=15.46	1972MCb (92921)	1939

Medium: 75% acetone, 0.1 M KNO3

****

C16H12N2O2 H2L CAS 9486-98-2 (3462)
1-(2-Hydroxyphenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	mixed	25°C	75%	U				1972MCb (92955)	1940
							K(Pb+HL)=8.45			
							K(PbHL+HL)=7.83			

Medium: 75% acetone, 0.1 M KNO3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	diox/w	30°C	75%	U		K1=14.65		1957SFb (92956)	1941
							K(Pb+H2L=PbL+2H)=-10.1			

****

C16H12N2O2 H2L CAS 14934-27-1 (5157)
1-(4-Hydroxyphenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	mixed	25°C	75%	U				1972MCb (92973)	1942
							K(Pb+HL)=8.18			
							K(PbHL+HL)=6.73			

Medium: 75% acetone, 0.1 M KNO3

****

C16H12N2O4S H2L CAS 13964-82-4 (3475)
1-(4-Sulfophenylazo)-2-hydroxynaphthalene;

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  mixed  25°C  75%  U        K1=4.20   B2=7.72   1972MCb (93002)1943
Medium: 75% acetone, 0.1 M KNO3
********************************************************************************
C16H12N2O5S           H3L    SolochromeVio R  CAS 94205-83-1  (4093)
1-(2'-Hydroxy-5'-sulfophenylazo)-2-naphthol;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       sp  oth/un 25°C  0.0  U        K1=12.5   B2=17.8   1962CRa (93023)1944
********************************************************************************
C16H13N2O10AsS2       H5L    Thorin I         CAS 3688-92-4  (2609)
1-((2-Arsonophenyl)azo)-2-hydroxy-3,6-naphthalyldisulfonic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  oth/un 30°C    ?  U        K1=9.02        1964PCa (93204)1945
********************************************************************************
C16H14N2O              HL                        (1318)
2-(2-Hydroxynaphthyliminomethyl)pyridine;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  diox/w 25°C  50%  A        K1=7.68   B2=13.26  1981RUa (93414)1946
********************************************************************************
C16H14N4O2            H2L                       (3467)
5-Hydroxy-4-(2-hydroxyphenylazo)-3-methyl-1-phenylpyrazole;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  diox/w 30°C  75%  U        K1=15.26       1952SNa (93475)1947
                                         K(Pb+H2L=PbL+2H)=-8.5
********************************************************************************
C16H15NO3              HL                        (901)
L-2-(Benzoylamino)-3-phenylpropanoic acid; C6H5.CH2.CH(NH.CO.C6H5).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  diox/w 25°C  50%  U T H    K1=2.97        1980SKa (93619)1948
0.1 KNO3. Temperature range 25-45C. At 35C DH=-16.3, DS=2.2.
********************************************************************************
C16H15N5O7S2          H2L    Cefixime         CAS 79350-37-1  (8532)
5-Thia-1-azabicyclo[4,2,0]oct-2-ene-2-carboxylic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       con non-aq 25°C 100%  C        K1=4.98   B2= 7.10  2003GNa (93653)1949
Medium: DMSO.
```

****

C16H17N3O4S HL Cephalexin CAS 15686-71-2 (7748)
7-(2-Aminophenylacetylamino)-3-methyl-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic ac.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Pb++	gl	KNO3	25°C	0.10M	C	M	K1=4.98 K(Pb(gly)+L)=6.42 B(Pb(gly)L)=11.40	2000GFb (93760)1950

****

C16H17N3O5S H2L Cephadroxil CAS 50370-12-2 (8403)
7-[[Amino(4-hydroxyphenyl)acetyl]amino]-3-methyl-8-oxo-5-thia-1-azabicyclooct-2-ene-2-carboxylic;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=5.67	2000GFb (93766)1951

****

C16H18N4 L trans-BPIC (9055)
N,N'-Bis[1-(2-pyridyl)ethylidene]-1,2-diiminoethane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Pb++	dis	non-aq	25°C	100%	C	M		2001OHb (93834)1952

Method: distribution from buffered 0.10 M NaCl into nitrobenzene.
K(Pb+3L(org)+2A=PbL3A2(org))=13.0. HA is picric acid.

****

C16H18O8S4 H4L CAS 51865-21-5 (239)
1,2-Dimethylbenzene-tetrathioethanoic acid; C6H4(CH(S.CH2.COOH)2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Pb++	gl	NaClO4	25°C	0.10M	U		K1=6.0	1974JBa (93889)1953

****

C16H20N2O8 H4L CAS 6411-02-5 (1919)
1-Phenyl-ethylenediamine-N,N,N',N'-tetraethanoic acid (DL)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Pb++	gl	KNO3	20°C	0.10M	U		K1=18.28	1989SLa (94046)1954
Pb++	vlt	KNO3	20°C	0.10M	U		K1=18.28	1969NDb (94047)1955

****

C16H24N2O8 H4L CAS 38557-30-1 (1256)
Ethylene-bis(N,N'-(2,6-dicarboxy)piperidine); ((HOOC)2.C5H8N.CH2.)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Pb++	gl	NaNO3	25°C	0.10M	U		K1=16.05	1979PBa (94320)1956

****
C16H24O6 L Benzo18-crown-6 CAS 14098-24-9 (513)
2,3-Benzo-1,4,7,10,13,16-hexaoxacyclooctadeca-2-ene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ cal none 25°C dil C H K1=3.27 2002BSc (94444)1957
Self medium, <0.005 M. DH(K1)=-20.9 kJ mol-1, DS(K1)=-7.7 J K-1 mol-1.

Pb++ con mixed 25°C 20% C TIH K1=3.25 1999SPc (94445)1958
Medium: 20% w/w AN/DMSO. Data for 20-80% w/w AN/DMSO and 25-55 C.
DH(K1)=-23 kJ mol-1, DS(K1)=-143 J K-1 mol-1.

Pb++ ISE none 20°C dil C T H K1=3.22 1990TAa (94446)1959
Method: Pb ion selective electrode. Data for 15-35 C. At 15 C, K1=3.29;
35 C, K1=3.08. At 25 C, DH(K1)=-17. 0 kJ mol-1, DS(K1)=4.0 J K-1 mol-1

Pb++ ISE none 25°C 0.0 U K1=3.19 1989TKa (94447)1960

Pb++ cal non-aq 25°C 100% C H K1=5.49 1986ICa (94448)1961
Medium: MeOH. DH(K1)=-32.0 kJ mol-1, DS(K1)=-2.1 J K-1 mol-1.
****
C16H24O14 H4L CAS 61696-54-6 (6104)
1,4,7,10,13,16-Hexaoxacyclooctadeca-2,3,11,12-tetracarboxylic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M M K1=7.6 1991FGb (94501)1962
B(PbHL)=11.6
Medium: 0.10 M Et4NNO3.
****
C16H26N2O10 H2L CAS 93031-54-0 (5831)
1,4,7,10-Tetraoxa-13,16-diazacyclooctadecane-11,18-dione-13,16-diethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M C K1=>11.5 2002DCb (94574)1963
Medium: 0.10 M Me4NNO3.
****
C16H26N6O2 L CAS 325125-72-2 (8779)
1,4,7-Tris(cyanomethyl)-1,4,7-triaza-10,13-dioxacyclopentadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M C K1=6.4 2002TBa (94627)1964
Medium: 0.10 M Me4NCl.
****
C16H28N2O8 H4L (5167)
1,2-Diaminoethane-N,N'-diethanoic-N,N'-di-2-(3-methyl)butanoic acid;

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       gl  KNO3   20°C 0.10M U        K1=14.18       1969NDc (94718)1965
*************************************************************************
C16H28N2O8            H4L                          (5168)
1,2-Diaminoethane-N,N'-diethanoic-N,N'-di-2-pentanoic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       vlt KNO3   20°C 0.10M U        K1=16.57       1969NDc (94744)1966
*************************************************************************
C16H28N2O8            H4L                          (5138)
1,2-Diaminooctane-N,N,N',N'-tetraethanoic acid;
(HOOCCH2)2N.CH2.CH(C6H13)N(CH2COOH)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       vlt KNO3   20°C 0.10M U        K1=19.20       1979MBd (94770)1967
*************************************************************************
C16H28N2O8            H4L                          (2850)
1,8-Diaminooctane-N,N,N',N'-tetraethanoic acid; ((HOOCCH2)2N(CH2)4)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       gl  KNO3   20°C 0.10M U   H                    1964ANa (94795)1968
                                        K(Pb+HL)=8.26
By calorimetry: DH(K1)=-34.2 kJ mol-1
*************************************************************************
C16H28N4O8            H4L    DOTA            CAS 60239-18-1  (1017)
1,4,7,10-Tetraazacyclododecane-1,4,7,10-tetraethanoic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       sp  NaClO4 25°C 1.00M U         K1=24.3        1995PMa (94921)1969
                                        B(PbHL)=27.6
-------------------------------------------------------------------------
Pb++       gl  R4N.X  25°C 0.10M C         K1=22.69       1992CDd (94922)1970
                                        B(PbHL)=26.55
                                        B(Pb2L)=25.99
                                        B(Pb2HL)=29.66
Medium: 0.10 M Me4NNO3.
-------------------------------------------------------------------------
Pb++       EMF KCl    20°C 0.10M C         K1=19.9        1981SFa (94923)1971
Method: Pt/H2 electrode.
-------------------------------------------------------------------------
Pb++       gl  KCl    20°C 0.10M U         K1=19.89       1976SFb (94924)1972
*************************************************************************
C16H29N3O7            H3L                          (7395)
4,8,12-Tris(carboxymethyl)-1-oxa-4,8,12-triazacyclotetradecane;
-------------------------------------------------------------------------
```

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=11.26 K(PbL+H)=5.56	1997CCa	(94953)1973

Medium: Me4NNO3

****

C16H29N3O8 H3L CAS 259211-79-5 (7775)
1,4-Dioxa-7,10,13-triazacyclopentadecane-7,10,13-triethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=16.92 K(PbL+H)=3.62 K(PbHL+H)=2.0 K(PbL+Pb)=3.48 K(Pb2L+H)=3.21	2000CDd	(94964)1974

Medium: 0.10 M (Me4N)NO3. K(Pb2H-1L+H)=7.19, K(Pb2H-2L+2H)=14.49.

****

C16H30N2O8 H2L CAS 72912-01-7 (1568)
1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-N,N'-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	kin	NaClO4	25°C	0.20M	U		K(PbL+H)=2.00	1997LTa	(95049)1975

Medium: LiClO4

Pb++	gl	NaNO3	25°C	0.10M	U		K1=14.54	1988HSb	(95050)1976
Pb++	gl	R4N.X	25°C	0.10M	U		K1=13.55	1983CRb	(95051)1977

****

C16H32N2O5 L Cryptand 2,2,1 CAS 31364-42-8 (837)
1,10-Diaza-4,7,13,16,21-pentaoxabicyclo[8,8,5]tricosane (2,2,1);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	cal	none	25°C	dil	C	H		2002BSc	(95264)1978

Self medium, <0.005 M. DH(K1)=-61.9 kJ mol-1, DS(K1)=23 J K-1 mol-1.

Pb++	gl	R4N.X	25°C	0.05M	C		K1=12.1	1997BCc	(95265)1979

Medium: 0.05 M Me4NClO4

Pb++	ISE	non-aq	25°C	100%	U		K1=8.37	1982NSb	(95266)1980

Medium: DMSO, 0.1 M Et4NClO4

Pb++	sp	non-aq	25°C	100%	U		K1=16.34 B(Pb2L)=20.07	1981SMb	(95267)1981

In propylene carbonate, I=0.01 M (Et4NClO4)

Pb++	gl	alc/w	25°C	100%	C		K1=15.11	1980SAa	(95268)1982

B(Pb2L)=20.07
Medium: MeOH, 0.05 M Et4NClO4

Pb++ gl R4N.X 25°C 0.10M C K1=13.12 1977ASc (95269)1983
****
C16H32N4O2 L (6363)
1,7,10,16-Tetraaza-4,13-dioxatricyclo[14.2.2.2(7,10)]docosane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaNO3 25°C 0.10M U K1=4.73 1990WHa (95315)1984
****
C16H32N4O6 L CAS 98608-90-3 (1322)
N,N'-Bis(carbamoylmethyl)-1,7,10,16-tetraoxa-4,13-diazacyclooctadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaClO4 25°C 0.50M U K1=10.70 1981KMb (95336)1985
****
C16H32N6O HL CAS 303962-27-8 (7706)
2,6-Bis[(bis(2-aminoethyl)amino)methyl]phenol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.15M C K1=10.84 2002FGc (95364)1986
B(PbHL)=20.05
B(PbH2L)=26.76
B(PbH-1L)=1.05
B(Pb2H-1L)=10.19
Medium: 0.15 M Me4NCl. B(Pb2H-2L)=-1.28.
****
C16H32N8O4 L CAS 157599-02-5 (8676)
1,4,7,10-Tetraazacyclododecane-1,4,7,10-tetraacetamide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaNO3 25°C 0.10M C K1=>19 1995MHa (95378)1987
****
C16H34N2O5 L (6953)
7,13-Bis(2-methoxyethyl)-1,4,10-trioxa-7,13-diazacyclopentadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M C K1=8.12 1995LLa (95419)1988
Medium: Et4NClO4
****
C16H34N2O5 L DHPK-21 CAS 106288-71-5 (8327)
N,N'-Bis(2-hydroxypropyl)-1,4,10-trioxa-7,13-diazacylopentadecane;

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

---
Pb++ gl NaNO3 25°C 0.10M C K1=8.26 1986HBe (95428)1989
****
C16H34N2O6 L CAS 69930-74-1 (1321)
N,N'-Bis(2-hydroxyethyl)-1,7,10,16-tetraoxa-4,13-diazacyclooctadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaClO4 25°C 0.50M U K1=9.20 1981KMb (95455)1990
****
C16H34N6O2 L CAS 441017-13-6 (8829)
1,7-Dimethyl-4,10-di(methylcarbamoylmethyl)-1,4,7,10-tetraazacyclododecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M C H K1=13.98 2002BBe (95479)1991
K(PbL+H)=3.98
K(PbL+OH)=3.51
Medium: (CH3)4NCl. Calorimetry: DH(K1)=-85.4 kJ mol-1, DS=-18 J K-1 mol-1;
DH(PbL+H)=-4.2, DS(PbL+H)=62; DH(PbL+OH)=-3.8, DS(PbL+OH)=55.
****
C16H36N4O2 L (7297)
1,11-Bis(2-hydroxyethyl)-4,8-dimethyl-1,4,8,11-tetraazacyclotetradecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M C K1=6.8 1996BCc (95550)1992
B(PbH-1L)=-1.5
Medium: Et4NClO4
****
C16H36N4O2 L (7296)
1,4-Bis(2-hydroxyethyl)-8,11-dimethyl-1,4,8,11-tetraazacyclotetradecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M C K1=6.95 1996BCc (95558)1993
B(PbH-1L)=-0.7
Medium: Et4ClO4
****
C16H36N4O4 L (6703)
1,4,7,10-Tetrakis(2-hydroxyethyl)-1,4,7,10-tetraazacyclododecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaNO3 25°C 0.10M C K1=15.3 1995TDa (95578)1994
K(Pb+HL)=3.1
B(PbH-1L)=4.2
****
C16H38N6 L (6697)
1,4,7,13-Tetramethyl-1,4,7,10,13,16-hexaazacyclooctadecane;

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.15M C        K1=13.37       1996BBa (95605)1995
********************************************************************************
C16H38N6O2              L                        (5365)
7,10,13-Tris(2-aminoethyl)-1,4-dioxa-7,10,13-triazacyclopentadecane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  R4N.X  25°C 0.10M C        K1=10.45       2000TBa (95630)1996
                                         K(PbL+H)=9.21
                                         K(PbHL+H)=5.98
Medium: 0.1 M Me4NCl.
********************************************************************************
C16H40N4O12P4         H8L                     CAS 41007-47-0  (2070)
1,4,7,10-Tetraethylphosphonic acid-1,4,7,10-tetraazacyclododecane;
C8H16N4(CH2CH2.PO(OH)2)4
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 1.00M U        K1=16.3        1989PBb (95640)1997
                                         K(Pb+HL)=12.1
                                         K(Pb+H2L)=8.5
                                         K(Pb+H3L)=7.1
                                         K(Pb+H4L)=5.6
********************************************************************************
C16H40N8                L                        CAS 297-11-0  (5588)
1,4,7,10,13,16,19,22-Octaazacyclotetracosane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.15M C        K1=10.83       1993ABc (95660)1998
                                         B(PbHL)=19.48
                                         B(PbH2L)=26.92
                                         B(PbH3L)=31.68
                                         K(Pb+HL)=9.83
K(Pb+H2L)=7.94, K(Pb+H3L)=3.9, K(PbL+H)=8.65, K(PbHL+H)=7.46, K(PbH2L+H)=4.8
B(Pb2L)=17.57, B(Pb2HL)=23.73, K(Pb2L+H)=6.16, K(PbL+Pb)=6.74,K(Pb2L+OH)=4.0
********************************************************************************
C16H42N8                L                        (6457)
2,5,8,11,14,17,20,23-Octaaza-tetracosane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.15M C        K1=10.37       1993ABc (95679)1999
                                         B(Pb2L)=18.064
                                         B(Pb2H-1L)=8.68
                                         B(Pb2H-2L)=-2.19
                                         B(PbHL)=20.328
```

B(PbH2L)=28.912, K(Pb+HL)=9.99, K(Pb2L+OH)=4.35, K(Pb2L(OH)+OH)=2.86,
B(PbH3L)=35.845, K(2Pb+HL)=15.00, B(Pb2HL)=25.39, K(Pb2L+H)=7.33

****

C17H13NO3S H2L CAS 119516-70-0 (6185)
7-Hydroxy-8((2-mercaptophenyl)iminomethyl)-4-methyl-2H-1-benzopyran-2-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	20°C	70%	U	T H	K1=17.22	1988KOb (95751)	2000

25 C:K=16.43; 32 C: K=15.42; 45 C:K=13.59. DH=-257 kJ mol-1, DS=-549

****

C17H14N2O HL CAS 2046-17-5 (5214)
1-(2-Methylphenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	mixed	25°C	75%	U		K1=8.55 B2=16.30	1972MCb (95798)	2001

Medium: 75% acetone, 0.1 M KNO3

****

C17H14N2O HL CAS 6756-41-8 (5215)
1-(4-Methylphenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	mixed	25°C	75%	U		K1=9.43 B2=17.47	1972MCb (95813)	2002

Medium: 75% acetone, 0.1 M KNO3

****

C17H14N2O2 HL CAS 1229-55-6 (5216)
1-(2-Methoxyphenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	mixed	25°C	75%	U		K1=9.20 B2=17.65	1972MCb (95832)	2003

Medium: 75% acetone, 0.1 M KNO3

****

C17H14N2O2 HL CAS 13441-91-1 (5217)
1-(4-Methoxyphenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	mixed	25°C	75%	U		K1=8.72 B2=16.36	1972MCb (95847)	2004

Medium: 75% acetone, 0.1 M KNO3

****

C17H14N2O5S H3L Calmagite CAS 3147-14-6 (2875)
1-(1-Hydroxy-4-methyl-2-phenylazo)-2-naphthol-4-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	sp	NaClO4	25°C	0.30M	U		K1=21.90	1969KMb (95930)	2005

****

C17H14O3 HL (6843)
1,1-Dibenzoylpropan-2-one; CH3.CO.CH(CO.C6H5)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	KCl	25°C	0.20M	U		K1=4.44		1992CMd (95967)	2006

****

C17H15N3OS HL (1292)
2-(4',5'-Dimethyl-2-thiazolylazo)-4-phenylphenol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	diox/w	25°C	60%	U		K1=8.19	B2=13.64	1981KTa (95995)	2007

****

C17H16N4S2 HL (4118)
3-Methyl-4-(2'-methylthiophenylazo)-1-phenylpyrazole-5(2H)-thione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	diox/w	30°C	75%	U		K1=7.8	B2=16.4	1964STc (96117)	2008

****

C17H16O4 H2L CAS 58134-82-0 (6193)
Benzoyl-2-hydroxy-4-methoxy-3-methylacetophenone;
C6H5.CO.CH2.CO.C6H2(OH)(OCH3)(CH3)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	mixed	30°C	60%	M	I	K1=5.83	B2=10.92	1991GDb (96158)	2009

Medium: 60%v/v acetone/water; 0.1M NaClO4; data also for 65% and 75%; for
75% v/v dioxane/water and EtOH/water.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	mixed	30°C	60%	M	I	K1=5.83	B2=10.92	1991GDc (96159)	2010

Medium: 60%v/v acetone/water; 0.1M NaClO4; data also for 65% and 75%; for
75% v/v dioxane/water and EtOH/water

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	alc/w	30°C	75%	M	TI	K1=5.50	B2=9.97	1990DGc (96160)	2011

Medium: 75% v/v EtOH/H2O

****

C17H24N4O6 H3L (7349)
3,6,9,15-Tetraazabicyclo[9.3.1]pentadeca-1(15),11,13-triene-3,6,9-triethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=17.48		1997DQa (96459)	2012
							K(PbL+H)=3.78			
Pb++	EMF	KCl	20°C	0.10M	C		K1=13.7		1981SFa (96460)	2013

Medium: Me4NNO3

Method: Pt/H2 electrode.

****

C17H26N4O4 H2L CAS 205595-08-0 (8972)
3,11-Bis(carboxymethyl)-3,7,11,17-tetraazabicyclo[11.3.1]heptadeca-1(17),13,15-trie
ne;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=11.985 K(PbL+H)=3.67	1998CDa (96505)	2014

Medium: 0.10 M Me4NNO3.

****

C17H30N4O8 H4L TRITA CAS 60239-20-5 (1018)
1,4,7,10-Tetraazacyclotridecane-1,4,7,10-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=19.11 B(PbHL)=23.266 B(Pb2L)=22.83 B(Pb2HL)=26.32	1992CDd (96655)	2015
Pb++	EMF	KCl	20°C	0.10M	C		K1=15.6	1981SFa (96656)	2016

Method: Pt/H2 electrode.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KCl	20°C	0.10M	U		K1=15.63	1976SFb (96657)	2017

****

C17H31N3O8 H3L CAS 282717-18-4 (7776)
1,4-Dioxa-7,10,14-triazacyclohexadecane-7,10,14-triethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=13.67 K(PbL+H)=6.15 K(PbL+Pb)=3.57 K(Pb2H-1L+H)=6.88 K(Pb2L+H)=5.72	2000CDd (96683)	2018

Medium: 0.10 M (Me4N)NO3.

****

C17H36N4O4 H2L (8282)
2,12-Dimethyl-5,9-di(2-carboxyethyl)-2,5,9,12-tetraazatridecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=7.00 K(PbL+H)=7.3	1989HAa (96779)	2019

****

C17H37N3O4 L CAS 119167-07-6 (6042)
4,7,10-Tri-(2-hydroxypropyl)-1-oxa-4,7,10-triazacyclododecane;

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

Pb++ gl NaNO3 25°C 0.10M U K1=12.17 1988HSb (96786)2020
****
C17H38N4O3 L (7318)
1,4,8-Tris(2-hydroxyethyl)-11-methyl-1,4,8,11-tetraazacyclotetradecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M C K1=7.0 1997RWa (96798)2021
B(PbH-1L)=-2.0
Medium: Et4NClO4
****
C17H38N6 L CAS 191231-50-2 (7348)
1,5-Bis(1,4,7-triaza-1-cyclononyl)pentane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M C K1=18.3 1997WTa (96810)2022
B(PbHL)=21.9
Medium: NEt4ClO4
****
C17H39N5O2 L (6706)
10,13,16-Trimethyl-1,4-dioxa-7,10,13,16,19-pentaazacycloheneicosane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaClO4 25°C 0.15M C K1=10.58 1994ABa (96827)2023
****
C17H41N7 L (7076)
1,4,7-Trimethyl-1,4,7,10,13,16,19-heptaazacyclohenicosane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaClO4 25°C 0.15M C K1=10.47 1996BBa (96835)2024
B(PbHL)=17.21
****
C18H15N3O3S HL CAS 61625-17-0 (4139)
Di-4-tolylthiovioluric acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl diox/w 30°C 25% M T H K1=3.79 B2= 8.40 1978MGe (97015)2025
Medium: 25% dioxane/H2O, 0.10 M NaClO4. Data for 40, 45 and 50 C.
DH(K1)=-54.8 kJ mol-1, DS(K1)=-108 J K-1 mol-1; DH(K2)=-40.6, DS(K2)=-45.2
****
C18H15N6O8AsS H3L Sulfarsazen CAS 5941-02-6 (4140)
4-(4'-Sulfophenylazo)anilinoazo-4-nitrobenzene-2-arsonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ sp alc/w 20°C 4% U K1=16.5 1965PSe (97089)2026

K(PbL+H)=5.7
Medium: 4% EtOH, 0.08 M KCl
****
C18H16N4O3S HL (3505)
(2-(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)azophenylthio)ethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl diox/w 30°C 75% U K1=10.11 1962SCc (97200)2027
****
C18H16N4O4 H2L (3500)
2-(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-ylazo)phenoxyethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl diox/w 30°C 75% U K1=9.56 1962SCc (97212)2028
****
C18H18N2OS2 L CAS 350014-32-3 (8596)
3,5,6,8,9,11-Hexahydro-2,17:12,14-dietheno-7,4,10,1,13-benzoxadithiadiazacyclopentadecine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ sp non-aq 25°C 100% C K1=6.24 2002AAa (97222)2029
Medium: CH3CN. Method: fluorescence.
****
C18H18N2S3 L CAS 183310-21-6 (8595)
2,5,8-Trithia[9],(2,9)-1,10-phenanthrolinophane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ sp non-aq 25°C 100% C K1=7.5 2002AAa (97237)2030
Medium: CH3CN. Method: fluorescence.
****
C18H18N4 L CAS 16858-01-8 (1528)
Tris(2-pyridylmethyl)amine; (C5H4NCH2)3N

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ ISE KNO3 20°C 0.10M C H K1=8.58 1977AHc (97270)2031
K(PbL(OH)+H) > 11
DH1=-43.8 kJ mol-1, DS1=14.2
****
C18H19N5O HL CAS 58858-65-5 (4130)
4-(2'-Dimethylaminophenylazo)-3-methyl-1-phenylpyrazol-5(2H)-one;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl diox/w 30°C 75% U K1=8.9 B2=17.2 1963SYa (97317)2032

****

C18H20N2O6 H4L CAS 10328-28-6 (3501)
Ethylenedinitrilo-N,N'-bis(2'-hydroxyphenyl)-N,N'-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KCl	25°C	0.10M	C		K1=19.47 K(PbL+H)=6.67 K(PbHL+H)=4.72	1993MMa	(97407)2033
Pb++	gl	KNO3	25°C	0.10M	C		K1=18.4 K(Pb+HL)=14.9 K(Pb+H2L)=9.9 *K(PbH2L)=-6.5 *K(PbHL)=-10.1	1992GVa	(97408)2034

****

C18H20N2O6 H4L EHPG CAS 10328-28-6 (429)
N,N'-Ethylene-bis-(2-(2'-hydroxyphenyl))glycine; (HOOCCH(C6H4OH)NHCH2.)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	sp	NaClO4	20°C	0.10M	U		K1=15.09 K(Pb+HL)=12.91 K(Pb+H2L)=9.64	1973NOb	(97438)2035

****

C18H20N4 L CAS 284497-48-9 (9056)
(1R,2R)-N,N'-Bis(2-pyridylmethylidine)-trans-1,2-diiminocyclohexane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	dis	non-aq	25°C	100%	C	M		2001OHb	(97460)2036

Method: distribution from buffered 0.10 M NaCl into nitrobenzene.
K(Pb+3L(org)+2A=PbL3A2(org))=14.4. HA is picric acid.

****

C18H20N4 L cis-BPIC CAS 90605-88-2 (9053)
(1R,2S)-N,N'-Bis(2-pyridinylmethylene)-1,2-cyclohexanediamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	dis	non-aq	25°C	100%	C	M		2003OHa	(97467)2037

Method: Distribution from buffered 0.10 M KNO3 into nitrobenzene.
K(Pb+3L(org)+2A=PbL3A2(org))=14.9. HA is picric acid.

****

C18H21N5 L (7482)
2,5,8-Triaza[9]-[9](2,9)[1,10]-phenanthrolinophane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C	H	K1=18.70 K(PbL+H)=1.9	1999BBb	(97501)2038

Medium: NMe4NO3. DH(K1)=-73.4 kJ mol-1; DH(PbHL)=-4.9.
****
C18H22O4 H2L B(CH2AcAcH)2 (2252)
1,3-Di(hexa-3,5-dione)-benzene; C6H4((CH2)2.CO.CH2.CO.CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	24°C	50%	U		K1=8.1	1979ACa (97561)	2039

****
C18H25N3 L CAS 17327-80-9 (7651)
1,9-Diphenyl-2,5,8-triazanonane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	0.15M	C		K1=6.81 K(PbL+OH)=5.00	1998PGc (97639)	2040

****
C18H25N3O7S2 L CAS 211120-80-8 (8706)
24-Hydroxy-22-nitro-9,12-dioxa-6,15-dithia-3,18-diazabicyclotetracosa-1(24),20,22-t
riene-4,17-di;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	cal	alc/w	25°C	70%	C	H	K1=2.10	1998HBc (97647)	2041

Medium: 70% MeOH/H2O. DH(K1)=-27.3 kJ mol-1, DS(K1)=-51.3 J K-1 mol-1.
****
C18H26N6 L (6628)
3,6,14,17,23,24-Hexaazatricyclo[17.3.1.1]tetracosa-1(23),8,10,12(24),19,21-hexaene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=13.84	1996DHa (97720)	2042

DH(K1)=-52.5 kJ mol-1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KCl	25°C	0.10M	M		K1=ca. 21 K(PbL+H)=4.1 K(PbHL+H)=4.1	1996MBb (97721)	2043

****
C18H26O4S8 e L CAS 334475-11-5 (5980)
3,6-Bis(methylsulfanyl)-2,7-(4,7,10,13-tetraoxa-1,16-dithiahexadecane-1,16-diyl)tet
rathiafulvalen

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	nmr	mixed	25°C	50%	C		K1=3.7	2001DMa (97728)	2044

Medium: 50% v/v CDCl3/CD3CN. Method: 1H NMR
****
C18H27N5O6 L CAS 211120-75-1 (8705)
21-Hydroxy-6,12-dimethyl-19-nitro-9-oxa-3,6,12,15-tetraazabicycloheneicosa-1,17,19-
triene-4,14-;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ cal alc/w 25°C 70% C H K1=3.23 1998HBc (97768)2045
Medium: 70% MeOH/H2O. DH(K1)=-63.0 kJ mol-1, DS(K1)=-149 J K-1 mol-1.
****
C18H28N4O4 H2L (7378)
7-Methyl-3,7,11,17-tetraazabicyclo[11.3.1]heptadeca-1(17),13,15-triene-3,11-diethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M C K1=10.89 1997CDb (97787)2046
K(PbL+H)=4.96
K(Pb(OH)L+H)=9.9
Medium: NMe4NO3
****
C18H28O5 L CAS 15196-73-3 (2359)
2,3-(4'-Dimethylethylbenzo)-1,4,7,10,13-pentaoxacyclopentadeca-2-ene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ ISE non-aq 25°C 100% U K1=7.85 B2=14.39 1982MDa (97810)2047
Medium: propylene carbonate
****
C18H28O6 H2L O(EAcAcE)2O CAS 73199-63-0 (2251)
1,11-Dioxacycloeicosane-5,7,15,17-tetraone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl diox/w 24°C 50% U K1=9.1 1979ACa (97831)2048
****
C18H30N2O11 H2L CAS 93049-99-1 (5832)
1,4,7,10,13-Pentaoxa-16,19-diazacycloeicosane-14,21-dione-16,19-diethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M C K1=>10.5 2002DCb (97914)2049
Medium: 0.10 M Me4NNO3.
****
C18H30N2O12 H4L (7125)
1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-bis(malonic acid);

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl KNO3 25°C 0.15M U K1=13.0 1995BGa (97929)2050
****
C18H30N4O12 H6L TTHA CAS 869-52-3 (694)
Triethylenetetraaminehexaethanoic acid;((HOOC.CH2)2N.CH2.CH2.N(CH2.COOH).CH2)2

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Pb++       vlt KCl    30°C 0.30M U                         1988HPa (98077)2051
                                     B(Pb2L)=29.67
--------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M U        K1=18.1         1971YMb (98078)2052
                                     K(PbL+H)=8.10
                                     K(PbHL+H)=3.78
                                     K(PbH2L+H)=2.80
                                     B(Pb2L)=28.7
--------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M U        K1=17.1         1970HAa (98079)2053
                                     K(PbL+H)=8.20
                                     K(PbL+Pb)=11.0
                                     K(Pb2L+H)=3.0
                                     K(Pb2HL+H)=2.6
By ion-selective electrode (Hg): B(Pb2L)=28.1
--------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M U        K1=16.8         1969LUa (98080)2054
                                     B(Pb2L)=28.1
                                     K(Pb+HL)=14.9
--------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M U        K1=19.5         1968SCa (98081)2055
**************************************************************************
C18H32NO5PS            HL                     CAS 1602-56-8  (5268)
Dihexylphenylsulfonylamidophosphate;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Pb++       dis oth/un   ?     ?  U        K1=4.2    B2=8.10   1971SSh (98129)2056
**************************************************************************
C18H32N4O8            H4L    TETA             CAS 60239-22-7  (1019)
1,4,8,11-Tetraazacyclotetradecane-1,4,8,11-tetraethanoic acid;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M C        K1=14.319       1992CDd (98219)2057
                                     B(PbHL)=19.07
                                     B(PbH2L)=23.32
                                     B(Pb2L)=18.01
                                     B(Pb2HL)=21.42
--------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.20M C        K1=15.00        1991KKa (98220)2058
--------------------------------------------------------------------------
Pb++       EMF KCl    20°C 0.10M C        K1=14.7         1981SFa (98221)2059
Method: Pt/H2 electrode.
--------------------------------------------------------------------------
Pb++       gl  KCl    20°C 0.10M U        K1=14.73        1976SFb (98222)2060
**************************************************************************
C18H32N4O8            H4L                      (8192)
```

3-Methyl-1,5,8,11-tetraazacyclotridecane-1,5,8,11-tetraethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ EMF KCl 20°C 0.10M C K1=17.8 1981SFa (98247)2061
Method: Pt/H2 electrode. For the 3-ethyl- derivative, K1=13.6;
for the 3,3-dimethyl- derivative, K1=8.1
****
C18H32N4O9 H4L CAS 189282-31-3 (8974)
4,7,10,13-Tetrakis-(carboxymethyl)-1-oxa-4,7,10,13-tetraazacyclopentadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M C K1=15.94 1999CDb (98260)2062
K(PbL+H)=5.82
K(PbHL+H)=3.32
K(PbL+Pb)=4.80
K(Pb2L+H)=4.18
Medium: 0.10 M NMe4NO3. *K(Pb2L)=-7.06.
****
C18H32O8 L CAS 473704-12-0 (8708)
4-[(2-Propenyloxy)methyl]-2,5,8,11,14,17,20-heptaoxabicyclo[7.6.6]heneicosane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ cal none 25°C 0.0 C H K1=2.42 2001ZKd (98274)2063
Self-medium, ca. 0.005 M. DH(K1)=-8.3 kJ mol-1, DS(K1)=19 J K-1 mol-1.
****
C18H33N3O9 H3L (6700)
1,7,13-Trioxa-4,10,16-triazacyclooctadecane-N,N',N"-triethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl KCl 25°C 0.10M C K1=15.82 1993DSa (98300)2064
K(PbL+H)=4.47
B(Pb2L)=19.39
K(Pb2L+H)=2.53
K(Pb(OH)L+H)=11.54
K(Pb2(OH)L+H)=10.98
****
C18H34N2O2 L (7388)
N,N'-Bis(2-hydroxycyclohexyl)-trans-cyclohexane-1,2-diamine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaNO3 25°C 0.10M U K1=4.80 1997SHa (98322)2065
****
C18H34N2O8 H2L CAS 68670-15-5 (5851)
1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-di-(3-propanoic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=9.20	1988CCc (98342)	2066

****

C18H36N2O6 L Cryptand 2,2,2 CAS 23978-09-8 (514)
1,10-Diaza-4,7,13,16,21,24-hexaoxabicyclo[8.8.8]hexacosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	cal	none	25°C	dil	C	H		2002BSc (98687)	2067

Self medium, <0.005 M. DH(K1)=-58.8 kJ mol-1, DS(K1)=40.9 J K-1 mol-1.

Pb++	gl	R4N.X	25°C	0.05M	C		K1=12.5	1997BCc (98688)	2068

Medium: 0.05 M Me4NClO4

Pb++	vlt	NaNO3	25°C	0.50M	C		K1=12.9	1995CMb (98689)	2069
							K(Pb+L+OH)=20.51		
							K(Pb+L+2OH)=23.71		
Pb++	sp	NaClO4	25°C	0.50M	U			1988STa (98690)	2070
							K(PbL+OH)=4.26		
Pb++	ISE	non-aq	25°C	100%	U		K1=7.23	1982NSb (98691)	2071

Medium: DMSO, 0.1 M Et4NClO4

Pb++	sp	non-aq	25°C	100%	U		K1=16.00	1981SMb (98692)	2072
							B(Pb2L)=21.20		

In propylene carbonate, I=0.01 M (Et4NClO4)

Pb++	gl	alc/w	25°C	100%	C		K1=14.84	1980SAa (98693)	2073
							B(Pb2L)=19.63		

Medium: MeOH, 0.05 M Et4NClO4

Pb++	vlt	non-aq	25°C	100%	C	I	K1=20.1	1979BLb (98694)	2074

Method: polarography. Medium: MeOH, 0.05 M Me4NClO4.
Also K1=12.7 (H2O), 6.3 (DMSO), 26.3 (CH3CN).

Pb++	gl	R4N.X	25°C	0.10M	C		K1=12.72	1977ASc (98695)	2075

Pb++	gl	R4N.X	25°C	0.10M	C	H	K1=12.36	1975ANa (98696)	2076

Medium: Me4NNO3. DH(K1)=-57.7 kJ mol-1, DS=-42.3

Pb++	gl	R4N.X	25°C	0.05M	C		K1=12.0	1975LSc (98697)	2077

****

C18H38N2O4 L (6449)
7,16-Di(1-Methylethyl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	oth/un	25°C	?	C		K1=6.19	1991DMa (98818)	2078

****
C18H38N2O6 L CAS 72911-99-0 (649)
4,13-Bis(2-methoxyethyl)-1,7,10,16-tetraoxo-4,13-diazacyclooctadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaNO3 25°C 0.10M C K1=7.54 1991DHa (98843)2079

Pb++ gl NaClO4 25°C 0.50M U K1=8.39 1981KMb (98844)2080
****
C18H38N2O6 L (5802)
7,16-Di(2-hydroxypropyl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaNO3 25°C 0.10M U K1=8.57 1986HBc (98853)2081
****
C18H40N4O4 L CAS 89066-60-2 (867)
N,N',N",N"'-Tetrakis(2-hydroxyethyl)-1,4,8,11-tetraazacyclotetradecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaNO3 25°C 0.10M U K1=6.28 1984MMc (98923)2082
K(PbL+OH)=ca. 5.1
****
C18H45N9 L (5838)
1,4,7,10,13,16,19,22,25-Nonaazacycloheptacosane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaClO4 25°C 0.15M C K1=9.77 1993ABc (98971)2083
B(PbHL)=19.15
B(PbH2L)=27.81
B(PbH3L)=34.28
K(Pb+HL)=9.56
K(Pb+H2L)=8.82, K(Pb+H3L)=6.5, K(PbL+H)=9.38, K(PbHL+H)=8.66, K(PbH2L+H)=6.5
B(Pb2L)=18.46, B(Pb2HL)=24.89, B(Pb2H-1L)=8.59, B(Pb2H-2L)=-2.17, & others.
****
C18H47N9 L CAS 133128-72-0 (6458)
2,5,8,11,14,17,20,23,26-Nonaaza-heptacosane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaClO4 25°C 0.15M C K1=11.32 1993ABc (98983)2084
B(Pb2L)=19.38
B(Pb2H-1L)=9.74
B(Pb2H-2L)=-0.99
B(PbHL)=20.90
B(PbH2L)=29.66, K(Pb+HL)=10.32, K(Pb2L+OH)=4.09, K(Pb2L(OH)+OH)=3.00,
B(PbH3L)=37.00, B(PbH4L)=42.74, K(2Pb+HL)=16.09, K(Pb2L+H)=7.29.

****

C19H13N3O7S2 H3L SNAZOXS CAS 117-87-3 (995)
8-Hydroxy-7-(4'-sulfo-1'-naphthylazo)-quinoline-5-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	sp	NaClO4	25°C	0.10M	U		K1=7.24	B2=14.63	1988MJa	(99049)2085
							K(Pb+HL)=3.20			
							K(Pb+2HL)=6.55			
Pb++	sp	NaClO4	25°C	0.10M	U		K1=7.24	B2=14.63	1979MPd	(99050)2086

****

C19H15NO8 H4L Alizarin Comp. CAS 3952-78-1 (671)
(3,4-Dihydroxy-2-anthraquinonyl-methyl)iminodiethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	sp	NaNO3	20°C	0.10M	U				1982WIa	(99139)2087
							K(Pb+HL)=11.69			
							K(PbHL+Pb=Pb2L+H)=0.8			

****

C19H17N3O4S2 HL Cephaloridine CAS 50-59-9 (8404)
7-[a-(2-Thienyl)acetamido]-3-(1-pyridylmethyl)-3-cephem-4-carboxylic acid betaine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=8.00		2000GFb	(99194)2088

****

C19H18N4O3S H2L (4145)
4-(2'-(2''-Carboxyethylthio)Phe-azo)-3-Me-1-Phe-pyrazole-5(2H)-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	diox/w	30°C	75%	U		K1=9.89		1965SMh	(99230)2089

****

C19H18N4O4 H2L (4142)
4-(2'-(2''-Carboxyethoxy)phenylazo)-3-methyl-1-Phe-pyrazol-5(2H)-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	diox/w	30°C	75%	U		K1=9.9		1965SMh	(99251)2090

****

C19H19N7O6 H3L Folic acid CAS 75708-92-8 (194)
Pteroylglutamic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	KNO3	30°C	0.10M	U	I	K1=3.13	B2=6.33	1970NDa	(99289)2091

I=0: K1=3.30, K2=3.20. I=0.01: K1=3.25, K2=3.20. I=0.05: K1=3.15, K2=3.18

****

C19H20N2S2 L CAS 403819-60-3 (8597)
3,6,7,8,9,11-Hexahydro-2,17:12,14-Dietheno-5H-4,10,1,13-benzodithiadiazacyclopentadecine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	sp	non-aq	25°C	100%	C		K1=6.07	B2= 8.29	2002AAa (99303)	2092

Medium: CH3CN. Method: fluorescence.

****

C19H28N4O6 H3L CAS 106967-44-6 (8973)
3,7,11-Tris(carboxymethyl)-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
Pb++	gl	R4N.X	25°C	0.10M	C		K1=12.83	1998CDa (99411)	2093
							K(PbL+H)=4.64		

Medium: 0.10 M Me4NNO3.

****

C19H39N3O5 L CAS 60598-00-7 (1537)
4-Methyl-1,4,10-triaza-7,13,16,21,24-pentaoxa-bicyclo[8,8,8]hexacosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	U		K1=14.1	1978LMa (99495)	2094
							K(Pb+HL)=6.2		

****

C19H41N3O5 L (5876)
7,10,13-Tris(2-hydroxypropyl)-1,4-dioxa-7,10,13-triazacyclopentadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	C		K1=9.09	1989HBa (99508)	2095

****

C19H42N4O4 L THEC-15 (6950)
N,N',N",N"'-Tetrakis(2-hydroxyethyl)-1,4,8,12-tetraazacyclopentadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	C		K1=4.9	1995TDa (99515)	2096
							B(PbH-1L)=-3.2		

****

C19H43N5O3 L (6707)
13,16,19-Trimethyl-1,4,7-trioxa-10,13,16,19,22-pentaazacyclotetracosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	0.15M	C		K1=9.30	1994ABa (99525)	2097
							K(PbL+H)=6.49		

****

C20H13N3O7S H3L Eriochrome Bl T CAS 1787-61-7 (997)
1-(1-Hydroxy-2-naphthylazo)-6-nitro-2-naphthol-4-sulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ sp NaClO4 20?°C 0.30M U K1=13.19 1968KSc (99573)2098
****
C20H14N2O HL (5291)
1-(1-Naphthylazo)-2-hydroxynaphthalene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl mixed 25°C 75% U K1=7.32 B2=14.04 1972MCb (99602)2099
Medium: 75% acetone, 0.1 M KNO3
****
C20H14N2O HL CAS 2653-64-7 (5292)
1-(2-Naphthylazo)-2-hydroxynaphthalene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl mixed 25°C 75% U K1=8.02 B2=14.97 1972MCb (99617)2100
Medium: 75% acetone, 0.1 M KNO3
****
C20H14N2O2 H2L CAS 13082-06-9 (3506)
1,1'-Azo-(2-hydroxynaphthalene);

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl diox/w 30°C 75% U 1957SFb (99627)2101
K(Pb+H2L=PbL+2H)=-9.3
****
C20H16N4O5S H2L EriochromeRed B CAS 14954-75-7 (3510)
4-(4,5-Dihydro-3-Me-5-oxo-1-Phe-1H-pyrazol-4-ylazo)-3-naphthol-1-sulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl diox/w 30°C 75% U 1957SFb (99797)2102
K(Pb+H2L=PbL+2H)=-8.3
****
C20H19N3O3S HL CAS 380496-12-8 (9100)
1,3-Di(3-ethylphenyl)-4,5,6-pyrimidinetrione-2-thio-5-oxime;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl diox/w 25°C 75% U T H K1=4.43 B2= 8.02 2001SSd (99875)2103
Medium: 75% v/v dioxan/H2O, 0.10 NaClO4. Data for 30 and 35 C.
DH(B2)=-0.17 kJ mol-1.
****
C20H19N3O3S HL CAS 380496-13-9 (9101)
1,3-Di(4-ethylphenyl)-4,5,6-pyrimidinetrione-2-thio-5-oxime;

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  diox/w 25°C  75%  U T H    K1=4.29   B2= 7.35  2001SSd (99884)2104
Medium: 75% v/v dioxan/H2O, 0.10 NaClO4. Data for 30 and 35 C.
DH(B2)=-0.59 kJ mol-1.
********************************************************************************
C20H24N2O6            H4L    HBED             CAS 3625-89-6  (2208)
N,N'-Di-(2-hydroxybenzyl)-diaminoethane-N,N'-diethanoic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  KNO3   25°C 0.10M U        K1=18.24       1967LMd (100013)2105
                                         K(Pb+HL)=14.76
                                         K(Pb+H2L)=10.38
********************************************************************************
C20H24N6O6            H2L    EDTAPA           CAS 41314-78-7  (7801)
Ethylenedinitrilo-N,N'-diethanoic-N,N'-bis(2-pyridylacetamido) acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  NaClO4 25°C 0.10M M   H    K1=8.24        1998DTa (100044)2106
Medium: 0.10 M KClO4.  By calorimetry, DH(K1)=-48.22 kJ mol-1,
DS(K1)=-4.0 J K-1 mol-1.
********************************************************************************
C20H24O6                L    DiBz-18-Crown-6  CAS 14187-32-7  (604)
2,3:11,12-Dibenzo-1,4,7,10,13,16-hexaoxacyclooctadeca-2,11-diene
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       con mixed  25°C  90%  C        K1=3.36        2003ISa (100207)2107
Medium: 90% v/v DMSO/H2O.
--------------------------------------------------------------------------------
Pb++       con non-aq 25°C 100%  C TIH    K1=1.96        2001RKa (100208)2108
Medium: DMF. Data for 15-55 C. Also data for 25-75% mol% DMF/AN.
DH(K1)=-46 kJ mol-1, DS(K1)=-197 J K-1 mol-1.
--------------------------------------------------------------------------------
Pb++       vlt mixed  25°C  90%  C        K1=3.0         1996SSc (100209)2109
Method: polarography. Medium: 90% w/w CH3CN/H2O.
--------------------------------------------------------------------------------
Pb++       vlt alc/w  25°C 100%  C        K1=7.74        1987CBd (100210)2110
                                         B(Pb2L)=14.04
Medium: methanol, 0.10 M Et4NI or Bu4NClO4. Method: polarography.
--------------------------------------------------------------------------------
Pb++       sol none   25°C  0.0  U  I     K1=1.89        1975SNa (100211)2111
********************************************************************************
C20H26N2O2S             L                        (7109)
3,4:9,10-Dibenzo-1,12-diaza-5,8-dioxa-15-thiacycloheptadecan-3,9-diene;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
```

Pb++ EMF alc/w 25°C 95% U K1=4.5 1995ABa (100305)2112
Medium: 95% MeOH/H2O. Also data for diaza-dioxa-thia ligands with smaller and larger ring sizes.

Pb++ gl alc/w 25°C 95% U K1=8.0 1994ABg (100306)2113
Medium: 95% v/v MeOH/H2O, 0.1 M Et4NClO4
****
C20H26N2O3 L (7551)
1,12-Diaza-3,4:9:10-dibenzo-5,8,15-trioxacycloheptadecan-3,9-diene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 25°C 95% U K1=5.5 1994ABg (100308)2114
Medium: 95% v/v MeOH/H2O, 0.1 M Et4NClO4
****
C20H26N2O3 L OdienNtnH4 CAS 85735-84-8 (5943)
1,15-Diaza-3,4:12,13-dibenzo-5,8,11-trioxacycloheptadecan-3,12-diene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 25°C 95% C K1=4.9 1998DLa (100319)2115
Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.

Pb++ gl alc/w 25°C 95% U K1=5.5 1994ABh (100320)2116
Medium: 95% MeOH/H2O, 0.10 M NEt4ClO4. For the 4-thia analogue: K1=8.0
****
C20H26N2S3 L (6958)
9,10:15,16-Dibenzo-1,7-diaza-4,11,14-trithiacycloheptadeca-9,15-diene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 25°C 95% U K1=ca.3 1994ABh (100323)2117
Medium: 95% MeOH/H2O, 0.10 M NEt4ClO4. For the 4-oxa analogue: K1=ca.3
****
C20H26N6 L CAS 221350-58-9 (2790)
2,5,8,11-Tetraaza[12]-[12](2,9)[1,10]-phenanthrolinophane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M C H K1=15.62 1999BBb (100338)2118
K(PbL+H)=4.9
Medium: NMe4NO3. DH(K1)=-46.0 kJ mol-1; DH(PbHL)=-25.2.
****
C20H27N3O2 L OenNdienH4 CAS 77016-63-8 (5938)
1,12,15-Triaza-3,4:9,10-dibenzo-5,8-dioxacycloheptadecan-3,9-diene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 25°C 95% C K1=8.1 1998DLa (100370)2119

Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.

Pb++ gl alc/w 25°C 95% U K1=8.1 1994ABg (100371)2120

Medium: 95% v/v MeOH/H2O, 0.1 M Et4NClO4

Pb++ gl alc/w 25°C 95% U K1=8.1 1994ABh (100372)2121

Medium: 95% MeOH/H2O, 0.1 M NEt4ClO4. For the 11,14-dithia analogue: K1=4.5

****

C20H27N3O2 L CAS 168279-86-5 (7556)

1,8,15-Triaza-3,4:12,13-dibenzo-5,11-dioxacycloheptadecan-3,12-diene;

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

---

Pb++ gl alc/w 25°C 95% C K1=5.7 1998DLa (100380)2122

Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.

****

C20H27N3S2 L (7660)

1,12,15-Triaza-3,4:9,10-dibenzo-5,8-dithiacycloheptadecan-3,9-diene;

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

---

Pb++ gl alc/w 25°C 95% U K1=4.5 1994ABg (100382)2123

Medium: 95% v/v MeOH/H2O, 0.1 M Et4NClO4

****

C20H29N5 L (6718)

3,4:9,10-Dibenzo-1,5,8,12,15-pentaazacycloheptadeca-3,9-diene

---

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

---

Pb++ EMF alc/w 25°C 95% U K1=9.4 1995ABa (100407)2124

Medium: 95% MeOH. Data for the 15-thia- (5.9) and 15-oxa- (6.7) analogues

****

C20H30N4 L CAS 140840-03-5 (7652)

1,12-Diphenyl-2,5,8,11-tetraazadodecane;

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

---

Pb++ gl NaClO4 25°C 0.15M C K1=9.68 1998PGc (100421)2125

K(PbL+OH)=3.84

****

C20H30N6 L (7250)

3,7,15,19,25,26-Hexaazatricyclo[19.3.1.1]hexacosa-1(25),9,11,13(26),21,23-hexaene;

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

---

Pb++ gl KNO3 25°C 0.10M C H K1=9.57 1996DHa (100432)2126

DH(K1)=-36.8 kJ mol-1

****

C20H31N7 L CAS 350501-24-5 (7976)

3,8,11,14,17,20,25-Heptaazatricyclo[20.3.1.12,6]heptacosa-1(26),2,4,6(27),22,24-hex

aene

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	U	H	K1=9.63 K(PbL+H)=7.0 K(PbHL+H)=5.9 K(PbH2L+H)=5.4 K(PbL+OH)=4.3	2001ABa	(100447)2127

Medium: 0.10 M NMe4Cl. By calorimetry: DH(K1)=-31.3 kJ mol-1, DH(PbHL)=
-38.5, DH(PbH2L)=-40.5, DH(PbH3L)=-21.7.

****

C20H31N7 L CAS 350501-28-9 (7974)
8,11,14,17,20,26,27-Heptaazatricyclo[20.3.1.12,6]heptacosa-1(26),2,4,6(27),22,24-he
xaene

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	U	H	K1=12.96 K(PbL+H)=6.20 K(PbHL+H)=5.92 K(PbH2L+H)=3.92	2001ABa	(100452)2128

Medium: 0.10 M NMe4Cl. By calorimetry: DH(K1)=-36.4 kJ mol-1, DH(PbHL)=
-30.5, DH(PbH2L)=-40.5, DH(PbH3L)=-34.3.

****

C20H34N4Fe L (7287)
1,1-Bis(5-methyl-2,5-diazahexyl)ferrocene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=7.15 B(PbHL)=14.12 B(PbH-1L)=-1.92	1996TBb	(100511)2129

****

C20H35N5O10 H5L (6545)
1,4,7,10,13-Pentaazacyclopentadecane-N,N',N",N"',N""-pentaethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.20M	C		K1=18.26	1991KKa	(100544)2130

****

C20H36N4O8 H4L (8193)
3,3-Dimethyl-1,5,8,12-tetraazacyclotetradecane-1,5,8,12-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	EMF	KCl	20°C	0.10M	C		K1=7.3	1981SFa	(100576)2131

Method: Pt/H2 electrode.

****

C20H36O6 L DiCy-18-crown-6 CAS 16069-36-6 (1653)

2,3:11,12-Dicyclohexyl-1,4,7,10,13,16-hexaoxacyclooctadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ con mixed 25°C 90% C K1=3.55 2003ISa (100688)2132
Medium: 90% v/v DMSO/H2O.

Pb++ cal none 25°C dil C H K1=4.15 2002BSc (100689)2133
Self medium, <0.005 M. DH(K1)=-25.0 kJ mol-1, DS(K1)=-4.4 J K-1 mol-1.

Pb++ con alc/w 25°C 40% C K1=6.83 2002ISa (100690)2134
Medium: 40% EtOH/H2O.

Pb++ vlt R4N.X 22°C 0.02M C I K1=3.9 2002RYa (100691)2135
Method: DPP in DMF, 0.025 M Et4NClO4. By conductivity, K1=3.60.
Data for 0-100 mol% DMF/H2O, and MeOH/H2O, AN/H2O and PrOH/H2O mixtures.

Pb++ nmr non-aq 27°C 100% C I K1=11.32 2001KZa (100692)2136
Method: 7Li nmr; competitive binding study. Medium: nitromethane.
In acetonitrile, K1=5.13

Pb++ con mixed 25°C 20% C TIH K1=4.28 1999SPc (100693)2137
Medium: 20% w/w AN/DMSO. Data for 20-80% w/w AN/DMSO and 25-55 C
DH(K1)=-26 kJ mol-1, DS(K1)=-7 J K-1 mol-1.

Pb++ vlt mixed 25°C 90% C K1=6.7 1996SSc (100694)2138
Method: polarography. Medium: 90% w/w CH3CN/H2O.

Pb++ vlt oth/un RT 0.10M C K1=5.39 1985LAa (100695)2139
Method: dc and ac polarography. Medium: 0.10 M HNO3.

Pb++ cal oth/un 25°C 0.10M U H 1976ITb (100696)2140
K1=5.29 (cis-syn-cis isomer)
K1=4.43 (cis-anti-cis isomer)
DH(Syn)=-22.9 and DH(Anti)=-17.6 kJ mol-1.
****
C20H39N5O2 HL CAS 333309-52-7 (8662)
16-Aminodocosahydro-16-methyl-dibenzo[b,i][1,4,8,11]tetraazacyclotetradecine-7-carb
oxylic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl KCl 25°C 0.5M U K1=9.35 2002WHa (100771)2141
K(PbL+H)=7.2
Data for the trans isomer. For the cis-isomer K1=11.85, K(PbL+H)=6.55
****
C20H42N2O6 L (6402)
7,16-Bis(1,1-dimethyl-2-hydroxyethyl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;

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

```
--------------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.10M C        K1=6.95        1991DHa (100862)2142
********************************************************************************
C20H42N2O8              L                       CAS 106113-01-3  (5879)
7,16-Bis(((2-hydroxyethyl)oxy)ethyl)-1,4,10,13-Tetraoxa-7,16-Diazacyclooctadecane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.10M C        K1=7.21        1989HBa (100867)2143
********************************************************************************
C20H42N4O4              L                       CAS 39678-14-3  (1543)
4,7-Dimethyl-1,4,7,10-tetraaza-13,16,21,24-tetraoxa-bicyclohexacosane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  R4N.X  25°C 0.10M U        K1=15.3        1978LMa (100891)2144
                                         K(Pb+HL)=8.0
********************************************************************************
C20H44N4O3              L                       CAS 120981-97-7  (8970)
4,5,11,17-Tetraethyl-1,8,14-trioxa-4,5,11,17-tetraazacyclononadecane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       cal non-aq 25°C 100%  C        K1=<0.5        1990DJb (100917)2145
Medium: DMSO.
********************************************************************************
C20H44N4O4              L                       CAS 102202-74-4  (6041)
1,4,7,10-Tetra-(2-hydroxypropyl)-1,4,7,10-tetraazacyclododecane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.10M U        K1=15.07       1988HSb (100930)2146
********************************************************************************
C20H44N4O4              L                       CAS 252191-56-3  (7609)
1,4,7,10-Tetrakis(3-hydroxypropyl)-1,4,7,10-tetraazacyclododecane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  R4N.X  25°C 0.10M C        K1=10.3        1999DWa (100953)2147
                                         K(Pb+HL)=4.3
Medium: 0.1 M NEt4ClO4
********************************************************************************
C20H44N4O6              L                       CAS 118018-01-2  (5878)
4,7,13,16-Tetrakis(2-hydroxyethyl)-1,10-dioxa-4,7,13,16-tetraazacyclooctadecane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  NaNO3  25°C 0.10M C        K1=10.72       1989HBa (100960)2148
********************************************************************************
C20H46N6O4              L                         (355)
```

1,4,7,16,19,22-Hexaaza-10,13,25,28-tetraoxacyclotriacontane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaCl	25°C	0.15M	C		K1=9.18 B(PbHL)=17.98 B(PbH2L)=25.74 B(PbH-1L)=-0.39 B(Pb2L)=16.88	1996BBh	(100984)2149

K(Pb2L+OH)=3.9 , K(Pb2LOH+OH)=3.5

****

C20H50N10 L CAS 862-28-2 (5839)
1,4,7,10,13,16,19,22,25,28-Decaazacyclotriacontane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	0.15M	C		K1=10.24 B(PbHL)=19.83 B(PbH2L)=28.74 B(PbH3L)=36.29 K(Pb+HL)=9.98	1993ABc	(101003)2150

K(Pb+H2L)=9.45, K(Pb+H3L)=8.05, K(PbL+H)=9.6, K(PbHL+H)=8.9, K(PbH2L+H)=7.5
B(Pb2L)=20.70, B(Pb2HL)=27.35, B(Pb2H-1L)=10.79, B(Pb2H-2L)=-0.28, & others.

****

C21H21N2O8Cl H2L Demeclocycline CAS 64-73-3 (5759)
7-Chloro-6-demethyltetracycline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	NaClO4	30°C	0.10M	C		K1=3.51 B2= 5.87	1980SGi	(101185)2151

Method: polarography.

****

C21H24N4 L (931)
Tris((6-methyl-2-pyridyl)methyl)-amine; (CH3.C5H3N.CH2)3N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	20°C	0.10M	C	H	K1=6.80	1977AHc	(101248)2152

Calorimetry: DH1=-21.8 kJ mol-1, DS1=55.6

****

C21H28N2O3 L OdienNtnH4 CAS 85735-85-9 (5944)
1,15-Diaza-3,4:12,13-dibenzo-5,8,11-trioxacyclooctadecan-3,12-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	alc/w	25°C	95%	C		K1=6.1	1998DLa	(101326)2153

Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.

****

C21H29N3O2 L OenNentnH4 CAS 77016-65-0 (5941)
1,12,16-Triaza-3,4:9,10-dibenzo-5,8-dioxacyclooctadecan-3,9-diene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 25°C 95% C K1=7.9 1998DLa (101351)2154
Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.

Pb++ EMF alc/w 25°C 95% U K1=7.9 1995ABa (101352)2155
Medium: 95% MeOH/H2O. Also data for triaza-dioxa ligands with smaller and larger ring sizes.
****
C21H31N5O8 H4L (8194)
3,6,9,12,18-Pentaazabicyclo[12.3.1]heptadeca-1(18),14,16-triene-3,6,9,12-tetraethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ EMF KCl 20°C 0.10M C K1=9.7 1981SFa (101416)2156
Method: Pt/H2 electrode.
****
C22H18N4O14As2S2 H8L Arsenazo III CAS 1668-00-4 (1148)
2,7-Bis(2'-arsonophenylazo)chromotropic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ sp oth/un RT 0.10M U 1980MKc (101641)2157
K(PbOH+H6L=Pb(OH)H4L+2H)=5.94
K(PbOH+H5L=Pb(OH)H4L+H)=7.23
K(Pb+H5L=PbH3L+2H)=0.74
K(Pb+H4L=PbH3L+H)=3.83
Medium: phthalate buffers.
****
C22H20N2O4 L CAS 207461-96-9 (8955)
(5Z)-12,13,20,21-Tetrahydrotribenzo[b,f,l][1,8,11,14,4,5]tetraoxadiazacyclohexadecine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ sp alc/w RT 100% C K1=2.65 2000GDa (101698)2158
Medium: MeOH.
****
C22H23N2O8Cl H2L Aureomycin CAS 56235-18-8 (3515)
Chlorotetracycline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ vlt NaClO4 30°C 0.10M C K1=3.62 B2= 6.31 1980SGi (101763)2159
Method: polarography.
****
C22H24N2O8 H2L Tetracycline CAS 60-54-8 (2201)
Tetracycline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaClO4 25°C 0.10M C 1996SJa (101824)2160
B(PbHL)=4.76
B(PbH2L)=6.09

Pb++ gl NaNO3 25°C 0.10M C K1=8.3 1992GAa (101825)2161

Pb++ vlt NaClO4 30°C 0.10M C K1=3.81 B2= 6.59 1980SGi (101826)2162
Method: polarography.
****
C22H24N2O8 H4L CAS 91044-24-5 (1920)
meso-1,2-Diphenyl-1,2-diaminoethane-N,N,N',N'-tetraethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl KNO3 20°C 0.10M U K1=12.57 1989SLa (101841)2163
****
C22H24N2O9 H2L Oxotetracycline CAS 79-57-2 (2202)
Oxytetracycline, 5-Hydroxy-tetracycline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaNO3 25°C 0.10M C K1=9.82 1992GAa (101886)2164

Pb++ vlt NaClO4 25°C 0.10M C K1=10.30 1992GAb (101887)2165
Method: polaography.
****
C22H26N4O10 H4L BAPTA (7230)
1,2-Bis(o-aminophenoxy)ethane-N,N,N',N'-tetraethanoic acid;
((HOOCCH2)2NCH(OC6H4NH2)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M C K1=11.3 1993YTa (101983)2166
****
C22H28O7 L Dibenzo-21-Cr-7 CAS 14098-41-0 (2876)
2,3:11,12-Dibenzo-1,4,7,10,13,16,19-heptaoxacycloheneicosane-2,11-diene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ cal non-aq 25°C 100% C H K1=1.97 1986ICa (102056)2167
Medium: MeOH. DH(K1)=-15.1 kJ mol-1, DS(K1)=-13 J K-1 mol-1.
****
C22H30N2O3 L (7108)
3,4:11,12-Dibenzo-1,14-diaza-5,10,17-trioxacyclononadecan-3,11-diene;

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

Pb++ EMF alc/w 25°C 95% U K1=6.2 1995ABa (102100)2168
Medium: 95% MeOH/H2O.
****
C22H30N2O4 L CAS 173547-24-5 (7560)
1,15-Diaza-3,4:12,13-dibenzo-5,8,11,18-tetraoxacycloeicosan-3,12-diene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 25°C 95% C K1=5.9 1998DLa (102109)2169
Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.
****
C22H31N3O2 L CAS 218931-85-2 (7841)
1,12,15-Triaza-3,4:9,10-dibenzo-5,8-dioxa-2,11-dimethylcycloheptadecan-3,9-diene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 25°C 95% U K1=7.8 1998ABf (102158)2170
Medium: 95% MeOH/H2O, 0.1 M Et4NClO4.
****
C22H31N3O3 L CAS 12859-24-4 (7557)
1,15,18-Triaza-3,4:12,13-dibenzo-5,8,11-trioxacycloeicosan-3,12-diene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 25°C 95% C K1=9.6 1998DLa (102176)2171
Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.
****
C22H31N7 L (7484)
2,5,8,11,14-Pentaaza[15]-16,29-phenanthrolinophane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M C H K1=13.09 1999BBb (102198)2172
K(PbL+H)=6.17
K(PbHL+H)=5.85
Medium: NMe4NO3. DH(K1)=-36.4 kJ mol-1; DH(PbHL)=-28.8,
DH(PbH2L)=-36.7.
****
C22H34N6 [22]-Py2N4 (5952)
Di-(2,6-pyridyl)-1,4,9,12,15,20-hexaazacyclodocosane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaClO4 25°C 0.01M U K1=6.61 1985NSc (102234)2173
B(PbH-1L)=-1.46
****
C22H35N5 L CAS 185558-39-8 (7653)
1,15-Diphenyl-2,5,8,11,14-pentaazapentadecane;

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

---
Pb++ gl NaClO4 25°C 0.15M C K1=10.61 1998PGc (102258)2174
K(PbL+H)=6.93
K(PbL+OH)=3.68
****
C22H37N5O14 H7L CAS 3234-59-1 (2425)
Tetraethylenepentaminehеptaethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl KNO3 25°C 0.10M C K1=18.1 1999LLa (102339)2175
K(PbL+H)=9.4
K(PbH2L+H)=3.5
K(PbHL+H)=5.3
K(PbH3L+H)=2.7
K(PbL+Pb)=13.4; K(Pb2L+H)=4.0; K(Pb2HL+H)=2.3
****
C22H42N2O6 L (6401)
7,16-Bis(tetrahydrofurfuryl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaNO3 25°C 0.10M C K1=8.50 1991DHa (102403)2176
****
C22H48N4O4 L (7292)
N,N',N",N"'-Tetrakis(3-hydroxypropyl)-1,4,8,11-tetraazacyclotetradecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M C K1=5.4 1996DTa (102470)2177
B(PbHL)=12.7
B(PbH-1L)=-3.3
Medium: Et4ClO4
****
C22H48N6O2 L CAS 39678-22-3 (1542)
4,7,13,16-Tetramethyl-1,4,7,10,13,16-hexaaza-21,24-dioxabicyclohexacosane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M U K1=15.5 1978LMa (102490)2178
K(Pb+HL)=9.2
****
C22H55N11 L CAS 60464-68-8 (5836)
1,4,7,10,13,16,19,22,25,28,31-Undecaazacyclotritriacontane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaClO4 25°C 0.15M C 1993ABc (102510)2179
B(Pb2L)=19.24
B(Pb2HL)=27.02

B(Pb2H2L)=33.78
B(Pb2H3L)=40.14
B(Pb2H4L)=45.73, B(Pb2H-1L)=8.43, B(Pb2H-2L)=-2.62, B(Pb3L)=23.76, B(Pb3HL)=30.44, B(Pb3H-1L)=16.05, B(Pb3H-2L)=6.92.

****

C23H17N4O13AsS2 H7L CAS 3772-44-9 (548)
2-((2-Arsonophenyl)azo)-7-(2-carboxyphenyl)azo)-chromotropic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	sp	none	25°C	0.0	U			1981MTb	(102581)2180
							K(Pb+H4L)=4.99		

H7L= 2-[(2-arsonophenyl)azo]-7-[(2-carboxyphenyl)azo]-1,8-dihydroxy-3,6-naphthyldisulphonic acid

****

C23H23NO5 L CAS 218619-58-0 (7808)
Dibenzo-pyridino-18-crown-6;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	non-aq	22°C	100%	C	I	K1=1.4	2001MRa	(102662)2181

Medium: DMF, 0.025 M Et4NClO4. Method: differential pulse polarography. Data for binary mixtures of DMF with MeOH, nitromethane, PrOH, AN.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	EMF	alc/w	25°C	100%	C	T H	K1=5.14	2001SZb	(102663)2182

Medium: methanol, 0.5 M Bu4NClO4. Method: Ag electrode, using competitive complexation with Ag+. Data for 5-35 C. DH=-27.6 kJ mol-1, DS=6 J K-1 m-1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	con	mixed	25°C	20%	C	TIH	K1=3.10	1999SPc	(102664)2183

Medium: 20% w/w AN/DMSO. Data for 20-80% w/w AN/DMSO and 25-55 C.

****

C23H28N2O6 H2L CAS 119673-46-0 (1922)
Dibenz[b,k]-1,13-dioxa-5,9-diazacyclopentadecane-N,N'-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.5M	C		K1=9.06	1993YNa	(102736)2184

****

C23H33N3O3 L CAS 173547-19-8 (7558)
1,15,19-Triaza-3,4:12,13-dibenzo-5,8,11-trioxacycloheneicosan-3,12-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	alc/w	25°C	95%	C		K1=7.3	1998DLa	(102815)2185

Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.

****

C23H37N7 L CAS 267428-80-8 (7952)
11,14,17-Trimethyl-8,11,14,17,20,26,27-heptaazatricyclo[20.3.1.12,6]heptacosa-1,2,4,6,22,24-hexa

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	U	H	K1=11.51 K(PbL+H)=5.87 K(PbHL+H)=5.02	2001ABa (102833)	2186

Medium: 0.10 M NMe4Cl. DH(K1)=-25.5 kJ mol-1, DH(PbL+H)=-34.7, DH(PbHL+H)=-35.9.

****

C23H41N3O3 L CAS 118974-36-0 (8971)
4,10-Diethyl-16-(phenylmethyl)-1,7,13-trioxa-4,10,16-triazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	cal	non-aq	25°C	100%	C	H	K1=4.33	1990DJb (102837)	2187

Medium: DMSO. DH(K1)=-48.7 kJ mol-1, DS(K1)=80.5 J K-1 mol-1.

****

C24H23NO7S H3L (1980)
3-(N-Carboxymethyl)aminomethyl-o-cresolsulfonephthalein;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	U		K1=9.1 B2=12.50 K(PbL+OH)=4.0	1979YMb (102930)	2188

K(PbL+OH) measured by spectrophotometry

****

C24H26N4Fe L CAS 725696-29-7 (9158)
1,1'-Bis[[(2-pyridinylmethyl)amino]methyl]-ferrocene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=5.16 K(PbL+H)=7.82 *K(PbL)=-7.97 *K(PbH-1L)=-9.40	2004CCb (102988)	2189

****

C24H31N3O8 H3L CAS 35369-55-2 (6972)
N,N"-Bis(2-hydroxybenzyl)-2,5,8-triazanonane-N,N',N"-triethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.50M	C		K1=17.09 K(PbL+H)=9.72 K(PbHL+H)=8.36 K(PbH2L+H)=5.51 K(PbH3L+H)=2.96	1994HCb (103059)	2190

****

C24H32O8 L DiBz-24-Crown-8 CAS 14174-09-5 (580)
2,3:14,15-Dibenzo-1,4,7,10,13,16,19,22-octaoxacyclotetracosa-2,14-diene;

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

---
Pb++ con mixed 25°C 90% C K1=2.97 2003ISa (103161)2191
Medium: 90% v/v DMSO/H2O.

Pb++ vlt mixed 25°C 90% C K1=3.8 1996SSc (103162)2192
Method: polarography. Medium: 90% w/w CH3CN/H2O.

Pb++ vlt alc/w 25°C 100% C K1=2.33 1987CBd (103163)2193
Medium: methanol, 0.10 M Et4NI or Bu4NClO4. Method: polarography.
Additional method conductivity in methanol: K1=2.33.

Pb++ cal non-aq 25°C 100% C H K1=2.34 1986ICa (103164)2194
Medium: MeOH. DH(K1)=-23.0 kJ mol-1, DS(K1)=-32.5 J K-1 mol-1.

Pb++ vlt oth/un RT 0.10M C K1=4 1985LAa (103165)2195
Method: dc polarography. Medium: 0.10 M HNO3.
****
C24H35NO9 L CAS 330462-64-1 (8032)
6,7-Dimethoxy-4-(1,4,7,10,13-pentaoxa-16-azacyclooctadec-16-ylmethyl)-2H-1-benzopyr
an-2-one;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ sp mixed 25°C 10% C K1=6.09 2001LWa (103245)2196
Method: fluorimetry. Medium: 10%v/v acetonitrile/H2O.
****
C24H35N3O3 L CAS 173547-21-2 (7559)
1,15,19-Triaza-3,4:12,13-dibenzo-5,8,11-trioxacyclodocosan-3,12-diene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 25°C 95% C K1=8.1 1998DLa (103253)2197
Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.
****
C24H36N4O4 L Py-2-18-aneN2O4 CAS 103837-13-4 (8062)
7,16-Bis(2-pyridinylmethyl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl KNO3 25°C 0.10M C K1=11.67 1986DSa (103266)2198
****
C24H36O21 H6L CAS 71735-94-9 (7414)
1,4,7,10,13,16,19,22,25-Nonaoxacycloheptacosane-2,3,11,12,20,21-hexacarboxylic
acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M M K1=7.7 1991FGb (103309)2199
Medium: 0.10 M Et4NNO3.
****

C24H42N6O12 H6L (6546)
1,4,7,10,13,16-Hexaazacyclooctadecane-N,N',N",N"',N"",N""'-hexaethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.20M	C			1991KKa	(103383)2200
							K(Pb+H2L)=17.83		
Pb++	EMF	KCl	20°C	0.10M	C		K1=15.9	1981SFa	(103384)2201

Method: Pt/H2 electrode.

C24H44O8 L Dicy-24-crown-8 CAS 17455-23-1 (2401)
2,3,14,15-Dicyclohexyl-1,4,7,10,13,16,19,22-octaoxacyclotetracosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	con	mixed	25°C	90%	C		K1=3.14	2003ISa	(103434)2202

Medium: 90% v/v DMSO/H2O.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	R4N.X	25°C	0.10M	U		K1=2.54	1978KKe	(103435)2203

C24H46N2O6 L (6567)
7,16-Bis(trans-2-hydroxycyclohexyl)-1,4,10,13-tetraoxa-7,16-diazocyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	C		K1=8.59	1991DCa	(103455)2204
							K(PbL+OH)=5.20		

C24H48N4O6 L CAS 56698-26-1 (1536)
4,10,16,22,27,32-Hexaoxa-1,7,13,19-tetraazatricyclo-tetratriacontane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	U		K1=10.57	1985NSb	(103489)2205
							B(PbHL)=17.31		
							B(PbH-1L)=2.19		

C24H52N4O6 L CAS 118018-00-1 (5877)
4,7,13,16-Tetrakis(2-hydroxypropyl)-1,10-Dioxa-4,7,13,16-tetraazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	C		K1=10.57	1989HBa	(103555)2206

C24H60N12 L CAS 24904-24-3 (5837)
1,4,7,10,13,16,19,22,25,28,31,34-Dodecaazacyclohexatriacontane;

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

Pb++ gl NaClO4 25°C 0.15M C 1993ABc (103588)2207
B(Pb2L)=19.97
B(Pb2HL)=28.36
B(Pb2H2L)=35.66
B(Pb2H3L)=41.83
B(Pb2H4L)=48.23, B(Pb2H-1L)=9.48, B(Pb2H-2L)=-1.45, B(Pb3L)=25.77, B(Pb3HL)=
32.78, B(Pb3H-1L)=16.71, B(Pb3H-2L)=-3.65.
****
C25H27N9O8S2 H2L CAS 62893-19-0 (8405)
Cefoperazone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl KNO3 25°C 0.10M C K1=6.7 2000GFb (103659)2208
****
C25H30N4O2 L CAS 336181-87-4 (8558)
Octahydro-12H-7,11-nitrilo-6H,18H-dibenzo[b,m][1,15,5,8,11]dioxatriazacyclodocosine
;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 25°C 95% U K1=9.8 2002FGa (103699)2209
Medium:95% MeOH/H2O, 0.10 M Et4NClO4. For the 2,16-t-butyl derivative,
K1=9.7.
****
C25H31N2O5F3 L CAS 147727-63-7 (3902)
10-(Coumarin 153)-1,4,7-trioxa-10-azacyclododecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ sp non-aq 20°C 100% U I K1=6.14 1995BBd (103715)2210
Medium: MeCN. PbL2+PbL. In MeOH: B2(Pb2L)=8
****
C25H32N2O7 H2L (7374)
1,15-Diaza-3,4:12,13-dibenzo-5,8,11-trioxacycloctadecane-N,N'-diethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl KNO3 25°C 0.5M C K1=8.39 1993YNa (103733)2211
****
C25H32N6 L CAS 132177-84-5 (536)
3,11-Bis(2-pyridylmethyl)-3,7,11,17-tetraazabicyclo[11.3.1]heptadeca-1(17),13,15-tr
iene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl KNO3 25°C 0.10M C K1=10.69 1999CDa (103746)2212
K(PbL+H)=3.95
K(Pb(OH)L+H)=10.59
****

C25H48N6O8 H3L Desferrioxamine CAS 70-51-9 (2488)
Desferrioxamine B; NH2.((CH2)5.NOH.CO.C2H4.CO.NH)2.(CH2)5.NOH.CO.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C			1996HVa (103819)	2213
							K(Pb+H3L)=5.92		
							K(Pb+H2L)=9.25		
							K(Pb+HL)=10.00		
							K(2Pb+HL)=16.29		

****

C26H25NO9S H4L Semi-Xylenol O (426)
3-(N,N-Di(carboxymethyl)aminomethyl)-2-cresolsulfonephthalein;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	U		K1=13.4	1981MUa (103947)	2214
							K(PbL+H)=5.6		

****

C26H27N3O10 H4L (7231)
2-((2-Amino-5-methylphenoxy)-methyl)-6-methoxy-8-aminoquinoline-N,N,N',N'-tetraetha
noic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=12.24	1993YTa (103969)	2215

****

C26H28N2O5 L (2155)
1,13-Di-(8-quinolyl)-1,4,7,10,13-tetraoxatridecane; C9H6N.O.(CH2.CH2.O)4.C9H6N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	cal	alc/w	25°C	100%	U	H	K1=5.12	1985BUa (103981)	2216

Medium: MeOH. DH(K1)=-27.9 kJ mol-1

****

C26H28N6 L CAS 16858-02-9 (933)
N,N,N',N'-Tetrakis-(2-pyridylmethyl)-diaminoethane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	NaNO3	25°C	0.10M	U		K1=14.36	1999CUa (104009)	2217
Pb++	vlt	NaNO3	25°C	0.10M	C		K1=14.30	1995CCb (104010)	2218

Method: differential pulse polarography

Pb++	sp	KNO3	20°C	0.10M	C	H	K1=13.98	1977AHc (104011)	2219

Calorimetry: DH1=-80.3 kJ mol-1, DS1=7.9

****

C26H28O4 H2L B(CH2AcAcCH2)2B (2253)
3,5,16,18-Tetraoxo[7.7]metacyclophane ;Cyclo-(-C6H4.(CH2)2.CO.CH2.CO.(CH2)2-)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	24°C	50%	U		K1=9.0	1979ACa	(104021)2220

C26H30N2O2 L CAS 268727-12-4 (8553)
6,7,8,9,10,11,17,18-Octahydro-6-(phenylmethyl)-5H-dibenzo[e,n][1,4,8,12]dioxadiazacyclopentadecin

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	alc/w	25°C	95%	C		K1=5.0	2002KAb	(104031)2221

Medium: 95% MeHO/H2O, 0.10 M Et4NClO4.

C26H33N3O8 H3L CAS 119673-43-7 (1925)
Dibenz[b,m]-1,15-dioxa-5,8,11-triazacycloheptadecane-N,N',N''-triethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.5M	C		K1=15.31	1993YNa	(104055)2222
							K(MLH)=19.30		

C26H34N4O6 H2L EDTAMBA CAS 144150-09-4 (7802)
Ethylenedinitrilo-N,N'-diethanoic-N,N'-bis(1-phenylethylacetamido) acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	0.10M	M	H	K1=9.26	1998DTa	(104085)2223

Medium: 0.10 M KClO4. By calorimetry, DH(K1)=-47.12 kJ mol-1,
DS(K1)=19.3 J K-1 mol-1.

C26H34N6O8 H4L CAS 132709-65-0 (8941)
3,6,14,17,23,24-Hexaazatricyclotetracosa-1,8,10,12,19,21-hexaene-3,6,14,17-tetraacetic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KCl	25°C	0.10M	M		K1=17.7	1996MBb	(104098)2224
							K(PbL+H)=5.0		
							K(PbHL+H)=4.1		

C26H38N2O4 L CAS 80757-23-9 (2450)
N,N'-Bis(benzyl)-1,10-diaza-4,7,13,16-tetraoxacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	con	mixed	25°C	20%	C	TIH	K1=4.33	1999SPc	(104190)2225

Medium: 20% w/w AN/DMSO. Data for 20-80% w/w AN/DMSO and 25-55 C.
DH(K1)=-28 kJ mol-1, DS(K1)=-13 J K-1 mol-1.

C26H40N4O4 L CAS 223498-85-9 (8585)
2,2'-[1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diylbis(methylene)]bisbenze
neamine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ sp non-aq 20°C 100% C K1=7.7 2002EAa (104224)2226
Medium: CH3CN, 0.001 M Bu4NClO4
****
C26H46N6S2 L CAS 286388-53-2 (7729)
1,4,7,13-Tetramethyl-10,16-bis(thienylmethyl)-1,4,7,10,13,16-hexaazacyclooctadecane
;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl NaClO4 25°C 0.10M C K1=10.18 2000BBc (104291)2227
K(PbL+H)=5.13
K(PbL+OH)=7.41
****
C26H56N4 L CAS 71366-36-4 (8100)
1-Hexadecyl-1,4,8,11-tetraazacyclotetradecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl KNO3 25°C 0.10M M K1=9.1 1996PSa (104366)2228
****
C26H56N8 L TCOA-14 (7430)
1,5,9,12,16,20,24,27-Octaazatricyclo[18.10.2.2(5,16)]tetratriacontane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M C K1=8.75 1998DDa (104372)2229
K(Pb+HL)=4.9
*K(Pb2L)=-8.3
*K(Pb2H-1L)=-8.9
K(Pb+H3L)=3.3
Medium: 0.1 M NEt4ClO4.
****
C27H33N3O2 L CAS 540522-39-2 (9154)
1,12,15-Triaza-3,4:9,10-dibenzo-5,8-dioxacycloheptadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 25°C 95% U K1=6.2 2004FRa (104533)2230
Medium: 95% methanol/water, 0.1 M Et4NClO4.
****
C27H35N2O6F3 L (4198)
10-(Coumarin 153)-1,4,7,10-tetraoxa-13-azacyclopentadecane;

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

```
--------------------------------------------------------------------------------
Pb++       sp  non-aq 20°C 100%  U  I     K1=7.1         1995BBd (104554)2231
Medium: MeCN. In MeOH: B(Pb2L)=10
********************************************************************************
C27H41N3O4              L                     CAS 262610-61-7  (7222)
3,4:5,6-Dibenzo-14-methyl-4',4"-bis(dimethylamino)1,8,11,17-tetraoxa-14-azacyclonon
adecan3,5diene
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  mixed  25°C  70%  C        K1=5.07        2000CMa (104593)2232
                                         B(PbHL)=12.02
                                         B(PbH-1L)=-1.98
                                         B(PbH-2L)=-10.53
Medium: 70% v/v dioxane/H2O, 0.10 M KNO3.
********************************************************************************
C27H44O                 L    Vitamin D3       CAS 67-97-0  (6103)
7-Dehydrocholesterol, Cholecalciferol
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  alc/w  25°C  70%  C        K1=9.1    B2=15.40  2003MYc (104615)2233
Medium: 70% v/v EtOH/H2O, 0.10 M KNO3.
********************************************************************************
C28H35N3O6              L                     CAS 114880-42-1  (7377)
3-(p-13-Aza-1,4,7,10-tetroxacyclopentadecan-13ylstyryl)-7-dimethylamino-1,4-benzoxa
zin-2-one;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       sp  non-aq  RT  100%  U        K1=6.02        1998ABc (104763)2234
Medium: acetonitrile.  Method: fluorescence spectroscopy.
********************************************************************************
C28H40O10               L    DiBz-30-crown10  CAS 104946-67-0  (1776)
2,3:17,18-Dibenzo-1,4,7,10,13,16,19,22,25,28-decaoxacyclotriaconta-2,17-diene;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       ISE non-aq 25°C 100%  U        K1=11.45       1982MDa (104900)2235
Medium: propylene carbonate
********************************************************************************
C28H46N6O2              L                     CAS 402562-58-7  (8007)
3,6,10,18,21,25-Hexaaza-31,32-dihydroxy-14,29-dimethyltricyclo[25,3,1,1]dotriaconta
-1,12,14,16,27
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++       gl  KCl    25°C 0.10M C        K1=14.07       2002KMb (104962)2236
                                         K(PbL+H)=10.04
                                         K(PbHL+H)=9.38
```

K(PbH2L+H)=7.92
K(PbH3L+H)=6.25
K(PbL+Pb)=10.16, K(Pb2L+H)=6.49, K(Pb2HL+H)=5.20, *K(Pb2L)=-8.74,
*K(Pb2(OH)L)=-10.48, K(Pb+H2L)=10.94, K(Pb+HL)=12.41.
****
C28H48N8 HL (7463)
1,4,7,13-Tetramethyl-10,16-bis(2-pyridylmethyl)-1,4,7,10,13,16-hexaazacyclooctadeca
ne;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	0.10M	C		K1=11.01	1999BBa	(104975)2237
							K(PbL+H)=5.29		
							K(PbHL+2H)=10.74		
							K(PbL+OH)=3.29		

****
C28H52N6O5 HL CAS 811431-80-8 (9159)
2,6-Bis(1,4-dioxa-7,10,13-triazacyclopentadec-10-ylmethyl)-phenol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaCl	25°C	0.15M	C		K1=13.79	2004ADa	(105006)2238
							K(Pb+HL)=11.49		
							K(PbHL+H)=8.43		
							K(PbL+Pb)=9.89		
							K(Pb2L+OH)=3.18		

K(PbL+H)=9.32.

Pb++	gl	alc/w	25°C	95%	U		K1=7.5	2004PFa	(105007)2239

Medium: 95 % methanol/H2O, 0.1 M Et4NClO4.
****
C29H37N3O4S2 L CAS 173547-29-0 (7564)
1,8,15-Triaza-3,4:12,13-dibenzo-8-tosyl-5,11-dioxa-18-thiacycloeicosan-3,12-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	alc/w	25°C	95%	C		K1=5.1	1998DLa	(105115)2240

Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.
****
C29H38N4O4S L CAS 168279-83-2 (7561)
1,8,15,18-Tetraaza-3,4:12,13-dibenzo-8-tosyl-5,11-dioxacycloeicosan-3,12-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	alc/w	25°C	95%	C		K1=9.3	1998DLa	(105132)2241
							B(PbHL)=15.0		

Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.
****
C29H45N3O5 L CAS 262610-63-9 (7249)
3,4:5,6-Dibenzo-14-methyl-4',4"-bis(dimethylamino)-1,8,11,17,20-pentaoxa14azacyclod

ocosan3,5diene

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	mixed	25°C	70%	C		K1=4.98 B(PbHL)=11.14 B(HgH-1L)=-2.30 B(HgH-2L)=-11.48	2000CMa (105155)	2242

Medium: 70% v/v dioxane/H2O, 0.10 M KNO3.

****

C30H40N4O4S L CAS 173547-27-8 (7562)
1,8,15,19-Tetraaza-3,4:12,13-dibenzo-8-tosyl-5,11-dioxacycloheneicosan-3,12-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	alc/w	25°C	95%	C		K1=7.6	1998DLa (105290)	2243

Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.

****

C30H42O8 H2L CAS 220150-46-9 (394)
1,2-Bis[2-(2'-carboxyoctanyloxy)phenoxy]ethane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	dis	non-aq	24°C	100%	C		K=2.28	1999HSa (105299)	2244

By solvent extraction into CHCl3 at pH 3.0-7.0. Data for related
2'-carboxyaalkyloxy derivatives. K: Pb(aq)+2HL(org)=PbL2(org)+2H(aq).

****

C30H50N6O2 L CAS 380446-61-7 (8002)
3,7,11,19,23,27-Hexaaza-33,34-dihydroxy-15,31-dimethyltricyclotetratriaconta-1,13,1
5,17,29,30-hex

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KCl	25°C	0.10M	C	M	K1=10.59 K(PbL+H)=10.95 K(PbHL+H)=9.60 K(PbH2L+H)=6.44 K(PbL+Pb)=8.16	2002WMa (105372)	2245

K(Pb2L+H)=5.12, *K(Pb2L)=-11.90. B(CoPbH2L)=33.85, B(CoPbHL)=28.37,
B(CoPbL)=23.08, B(CoPbH-1L)=13.52, B(CoPbH-2L)=2.97.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KCl	25°C	0.10M	C	M	K1=10.59 K(PbH2L+H)=6.44 K(PbHL+H)=9.90 K(PbL+H)=10.95 *K(PbL)=-11.5	2001WKa (105373)	2246

K(Pb2L+H)=5.12, K(PbL+Pb)=8.16, *K(Pb2L)=-10.57. Also data for
dinuclear complexes, M2HnL, and heterodinuclear complexes, MM'HnL.

****

C30H64N4 L CAS 188770-59-4 (8101)
1-(3,7,11,15-Tetramethyl)hexadecyl-1,4,8,11-tetraazacyclotetradecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	M		K1=10	1996PSa	(105392)2247

****
C31H32N2O13S H6L Xylenol orange CAS 63721-85-5 (432)
5,5'-Bis-N,N-bis(carboxymethyl)aminomethyl-4'-hydroxy-3,3'-dimethylfuchsone-2"-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	30°C	0.10M	C		K(Pb+H2L)=6.44 K(Pb+HL)=10.42	1995STa	(105485)2248
Pb++	ISE	NaClO4	25°C	0.10M	U		K1=13.68 K(Pb+HL)=11.63 K(Pb+H2L)=5.39 K(PbL+H)=10.08 K(PbHL+H)=4.32 K(Pb+PbL)=12.45, K(Pb+PbHL)=6.47, K(Pb2L+H)=4.1	1980MOa	(105486)2249
Pb++	gl	KNO3	25°C	0.10M	U		K1=15.24 B(PbHL)=25.32 B(PbH2L)=30.01 B(Pb2L)=26.70	1977SYa	(105487)2250

****
C31H37N7 L CAS 259259-40-0 (537)
3,7,11-Tris(2-pyridylmethyl)-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
Pb++	gl	KNO3	25°C	0.10M	C		K1=9.62 K(PbL+H)=3.55	1999CDa	(105539)2251

****
C32H32N2O12 H6L Cresolphthalexo CAS 2411-89-4 (1997)
o-Cresolphthalein-3,3'-bis(methyliminodiethanoic acid)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	30°C	0.1M	U	TIH	K1=11.95 K(Pb+HL)=10.85 K(Pb+H2L)=8.10	1996STa	(105612)2252

*K1=-6.13.

****
C32H34N2O2S2 L (7281)
3,4:9,10:14,15:20,21-Tetrabenzo-1,12-diaza-5,8-dioxa-16,19-dithiacyclodocosan-3,9,1

4,20-tetraene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 25°C 95% C K1=<4.5 1996AKb (105622)2253
Medium: 95% MeOH/H2O, 0.10 M Et4NClO4
****
C32H34N2O4 L (7282)
3,4:9,10:14,15:20,21-Tetrabenzo-1,12-diaza-5,8,16,19-tetraoxacyclododecan-3,9,14,20-tetraene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 25°C 95% C K1=5.9 1996AKb (105625)2254
Medium: 95% MeOH/H2O, 0.10 M Et4NClO4
****
C32H34N2S4 L (7283)
3,4:9,10:14,15:20,21-Tetrabenzo-1,12-diaza-5,8,16,19-tetrathiacyclododecan-3,9,14,29-tetraene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 25°C 95% C K1=<4.5 1996AKb (105629)2255
Medium: 95% MeOH/H2O, 0.10 M Et4NClO4
****
C32H42N6O2S H2L CAS 226211-88-7 (7999)
2,2'-(7,10-DiMe-1-thia-4,7,10,13-tetraazacyclopentadeca-4,13-diyl)bis(methylene)bis-quinolinol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M C K1=12.63 2001LIa (105741)2256
B(PbHL)=15.85
B(PbH-1L)=6.91
Medium: 0.10 M Me4NCl.
****
C32H42N6O3 H2L CAS 226211-86-5 (7997)
2,2'-(7,10-DiMe-1-oxa-4,7,10,13-tetraazacyclopentadecan-4,13-diyl)bis(methylene)-bis-quinolinol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M C K1=13.65 2001LIa (105748)2257
B(PbHL)=16.93
B(PbH-1L)=8.22
Medium: 0.10 M Me4NCl.
****
C32H64N4O10 L CAS 42133-16-4 (8579)
4,10,13,19,25,28,33,36,41,44-Decaoxa-1,7,16,22-tetraazatricyclo[20.8.8.87,16]hexatetracontane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 25°C 90% M K1=ca. 12 1977LSc (105852)2258
Medium: 90% (w/w) MeOH/H2O, 0.1 M Et4NBr.
****
C33H36N2O2 L CAS 225918-78-5 (8554)
6,7,8,9,10,11,17,18-Octahydro-6,10-bis(phenylmethyl)-5H-dibenzo[1,4,8,12]dioxadiaza cyclopentadeci
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 25°C 95% C K1=4.2 2002KAb (105886)2259
Medium: 95% MeHO/H2O, 0.10 M Et4NClO4.
****
C33H38N2O6P2 H2L CAS 361523-72-0 (7842)
1,12-Diaza-3,4:9,10-dibenzo-5,8-dioxacyclopentadecan-1,2-bis(methylenephenylphosphi nic acid);

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 25°C 95% C K1=13.4 2001FLa (105906)2260
Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.
****
C33H44N6O2S H2L CAS 226211-89-8 (8000)
2,2'-(7,11-DiMe-1-thia-4,7,11,14-tetraazacyclohexadecan-4,14-diyl)bis(methylene)bis -quinolinol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M C K1=12.43 2001LIa (105945)2261
B(PbHL)=16.52
B(PbH-1L)=6.77
Medium: 0.10 M Me4NCl.
****
C33H44N6O3 H2L CAS 226211-87-6 (7998)
2,2'-(7,11-DiMe-1-oxa-4,7,11,14-tetraazacyclohexadecan-4,14-diyl)bis(methylene)bis- 8-quinolinol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl R4N.X 25°C 0.10M C K1=12.75 2001LIa (105952)2262
B(PbHL)=17.27
Medium: 0.10 M Me4NCl.
****
C33H45N5O3 L CAS 176483-79-7 (7769)
4,24,29-Trioxa-1,11,14,17,36-pentaazapentacyclo[]hentetraconta-5,7,9,19,21,23,30,32 ,34-nonaene;

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

---
Pb++ gl R4N.X 25°C 0.10M C K1=9.52 2000BBf (105962)2263
K(PbL+OH)=3.8
Medium: 0.10 M Me4NNO3.
****
C34H36N6O2Cl2 CAS 656821-44-2 (9234)
7-Methyl-3,11-bis((5-chloro-8-hydroxy-7-quinolinyl)methyl)tetraazabicycloheptadeca-1,13,15-triene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 20°C 83% C K1=16.23 2003CCb (106014)2264
B(PbHL)=25.75
B(PbH2L)=33.49
B(PbH3L)=38.62
B(PbH4L)=42.77
Medium: 83% (v/v) MeOH/H2O, 0.10 M Bu4NNO3. B(Pb2L)=27.38, B(Pb2HL)=33.22, B(Pb2H2L)=38.00.
****
C34H38N2O3 L CAS 268727-13-5 (8555)
Decahydro-17,20-bis(phenylmethyl)dibenzo[h,p][1,4,7,11,14]trioxadiazacycloheptadecine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 25°C 95% C K1=4.4 2002KAb (106025)2265
Medium: 95% MeHO/H2O, 0.10 M Et4NClO4.
****
C34H54O8 H2L Lasalocid CAS 25999-20-6 (2335)
Lasalocid acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 25°C 100% M H K1=7.7 B2=11.0 1994MPc (106152)2266
Medium: MeOH. DH(K1)=26 kJ mol-1, DS=23 J K-1 mol-1; DH(B2)=34, DS=32
****
C35H40N2O3 L CAS 268727-14-6 (8556)
Decahydro-17,21-bis(phenylmethyl)-16H-dibenzo[h,q][1,4,7,11,15]trioxadiazacyclooctadecine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 25°C 95% C K1=ca.4.4 2002KAb (106195)2267
Medium: 95% MeHO/H2O, 0.10 M Et4NClO4.
****
C36H36N24O12 L Cucurbituril CAS 283175-97-3 (6744)
Cucurbit[6]uril;

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

Pb++ sol none 25°C 0.0 C K1=2.19 2001BCe (106271)2268
Method: total organic carbon analysis of dissolved species.
For the homologous cucurbit[5]uril, K1=1.54.

Pb++ cal mixed 25°C 50% C H K1=3.51 2000ZKb (106272)2269
Medium: 50% v/v formic acid/H2O. DH(K1)=-13.6 kJ mol-1, DS(K1)=22 J K-1 mol-1.
****
C36H44N4O2 L CAS 446875-57-6 (8559)
3,17-Bis(1,1-dimethylethyl)-tetrahydro-dinitrilodibenzodioxadiazacyclotetracosine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 25°C 95% U K1=ca.9.3 2002FGa (106328)2270
Medium:95% MeOH/H2O, 0.10 M Et4NClO4.
****
C36H60N8O8 L CAS 121925-84-6 (7152)
Cyclo(Gly-eLL-Gly)2 (eLL=N,N'-ethylene-bridged (S)-leucyl-(S)-leucine
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ sp non-aq 25°C 100% U K1=3.89 1994MKa (106457)2271
Medium: MeCN
****
C36H62O11 HL Monensin CAS 17090-79-8 (737)
Monensin, 1,6-dioxaspiro[4,5]decane derivative;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 25°C 100% M H K1=7.7 B2=12.1 1994MPc (106531)2272
Medium: MeOH. DH(K1)=28.3 kJ mol-1, DS=242 J K-1 mol-1; DH(B2)=36.2, DS=353
****
C37H44N2O13S H6L MeThymol Blue (428)
3,3'-Bis(N,N-di(carboxymethyl)aminomethyl)thymolsulfonephthalein;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ sp NaNO3 25°C 0.10M C I K1=5.09 1997GAc (106615)2273
K(PbL+Pb)=4.60
Medium pH 4.45 (acetate buffer). Also data for 15-45% w/w MeOH/H2O, 0.10 M NaNO3.
****
C38H38N4O4 H2L (7457)
1,1'-Bis(4-tert-butylbenzyl)-2,2'-bis(benzimidazole)-4,4'-dicarboxylic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ nmr mixed 20°C 25% U K1=3.53 1996BPb (106655)2274
Medium: 25% CD3OD/CDCl3.
****

C39H42N4O2 HL CAS 688348-35-8 (9160)
Octahydro-19,22-bis(phenylmethyl)-12H-7,11-nitrilo-6H,18H-dibenzo[1,15,5,8,11]dioxa
triazacyclo;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 25°C 95% U K1=5.5 2004PFa (106711)2275
Medium: 95 % methanol/H2O, 0.1 M Et4NClO4.
****
C40H44N4O2S4 CAS 244271-42-9 (8951)
4,7,13,16-Tetrakis(phenylmethyl)-1,10-dioxa-4,7,13,16-tetraazacyclooctadecLne-3,8,1
2,17-tetrathi

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ sp non-aq 25°C 100% C K1=7.0 B2=11.80 1999RPa (106760)2276
B(Pb2L)=12.2
Medium: acetonitrile.
****
C40H48N4O6 L CAS 357386-71-1 (8586)
2,2'-[Tetraoxa-7,16-diazacyclooctadecane-7,16-diylbis(methylene-2,1-phenylenenitril
omethylidyne)]

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ sp non-aq 20°C 100% C K1=7.2 2002EAa (106789)2277
Medium: CH3CN, 0.001 M Bu4NClO4
****
C40H50N20O10 L CAS 143902-45-8 (8935)
Decamethylcucurbit[5]uril;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ cal mixed 25°C 50% C H K1=>9 2000ZKb (106810)2278
Medium: 50% v/v formic acid/H2O. Method: competitive calorimetric
titration with KNO3. DH(K1)=-23.5 kJ mol-1, DS(K1)=>93.6 J K-1 mol-1.

Pb++ gl R4N.X 25°C 0.05M C 2000ZKb (106811)2279
B(PbH-1L)=-9.25
B(Pb2H-2L)=-17.5
Medium: 0.05 M Et4NCl.
****
C41H45N3O2 L CAS 129508-47-0 (8557)
Decahydro-6,9,12-tris(phenylmethyl)-5H-dibenzo[e,p][1,4,8,11,14]dioxatriazacyclohep
tadecine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 25°C 95% C K1=4.3 2002KAb (106881)2280
Medium: 95% MeHO/H2O, 0.10 M Et4NClO4.

****
C42H68N2O4 L CAS 188593-77-3 (8954)
2,17-Didodecyl-6,7,9,10,12,13-hexahydro-dibenzo[b,f][1,8,11,14,4,5]tetraoxadiazacyc
lohexadecine

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ sp alc/w RT 100% C K1=2.45 2000GDa (106976)2281
Medium: MeOH.
****
C43H58N4O12 H3L Rifampicin CAS 13292-46-1 (8977)
3-[[(4-Methyl-1-piperazinyl)imino]methyl]rifamycin;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ gl alc/w 30°C 50% C T H 2001SKd (107021)2282
K(Pb+H2L)=8.42
K(PbH2L+H2L)=6.55
Medium: 50% v/v MeOH/H2O, 0.05 M KCl. DH(Pb+H2L)=-57.25 kJ mol-1, DS=-28.0
J K-1 mol-1; DH(PbH2L+H2L)=-47.48, DS=-31.0. Also data for 35 and 40 C.
****
C44H30N4O12S4 H4L (6422)
5,10,15,20-Tetra(p-phenylsulfonic acid)porphin;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ sp NaNO3 25°C 0.10M C 2003KPa (107083)2283
B(PbH-2L)=-9.76
****
C44H38N8 H2L CAS 48242-70-2 (6629)
5,10,15,20-Tetrakis(1-methylpyridinium-4-yl)porphine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ sp NaNO3 25°C 0.50M C K1=17.78 1998IHb (107107)2284
K(Pb+H2L=PbL+2H)=-7.49
For the 2-pyridyl analogue, K1=15.20, K(Pb+H2L=PbL+2H)=-7.02
****
C44H50N4O7F6 L (4218)
7,13-Bis(coumarin 153)-1,4,10-trioxa-7,13-diazacyclopentadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++ sp non-aq 20°C 100% U I K1=7.3 1995BBd (107153)2285
Medium: MeCN. In MeOH: K1=5.45
****
C46H48N4O2 HL CAS 688348-38-1 (9161)
Octahydro-19,22,25-tris(phenylmethyl)-12H-7,11-nitrilo-6H,18H-dibenzo[1,15,5,8,11]d
ioxatriazac;

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       gl  alc/w  25°C  95%  U        K1=< 4         2004PFa (107268)2286
Medium: 95 % methanol/H2O, 0.1 M Et4NClO4.
*************************************************************************
C46H54N4O8F6           L                      (4741)
7,16-Bis(coumarin 153)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       sp  non-aq 20°C 100%  U  I     K1=7.9         1995BBd (107287)2287
Medium: MeCN. In MeOH: K1=5.95
*************************************************************************
C48H30N4O8            H6L                    CAS 14609-54-2  (5377)
Tetracarboxyphenylphorphine;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       sp  NaNO3  25°C 0.10M C                         2003KPa (107347)2288
                                          B(PbH-2L)=-9.75
*************************************************************************
C48H58N2O4S2           L                      CAS 403518-26-3  (8260)
11,23-Diprop-2-enyl-25,27-bis(dimethylaminothiocarbonylmethoxy)-26,28-dipropoxycali
x[4]arene;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       sp  non-aq 25°C 100%  C        K1=7.7         2001ACa (107395)2289
Medium: acetonitrile.
*************************************************************************
C48H96N2O4             L                      CAS 72469-41-1  (5351)
N,N-Dioctadecyl-N',N'-dipropyl-3,6-dioxaoctanediamide;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       ISE oth/un 21°C 100%  C        K1=17.2        1999CPa (107448)2290
Medium: PVC/DOS ion selective electrode membrane (DOS: bis(2-ethylhexyl)-
sebacate). Data for structurally related ionophores.
*************************************************************************
C69H102N4O9            L                      CAS 116352-85-3  (9286)
para-t-Butyldihomooxacalix[4]arene tetra(diethyl)amide;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       sp  alc/w  25°C 100%  C        K1=5.0         2004MFa (107838)2291
Medium: MeOH, 0.01 M Et4NCl.
*************************************************************************
C76H52O46              H9L    Gallotannin      CAS 1401-55-4  (2795)
Tannic acid;
-------------------------------------------------------------------------
```

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       vlt oth/un 25°C 0.02M C                          2000CDc (107864)2292
                                        Keff(Pb+L)=5.46
Medium: 0.01 M KNO3, 0.01 M acetate buffer, pH 5.0.
*************************************************************************
C88H96N8O12S4           L                     CAS 639027-46-6  (9277)
Tetra(benzoylthiocarbamido)cavitand;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       ISE NaCl    rt  0.01M C        K1=8.9          2003MGa (107929)2293
Method: segmented sandwich membrane ISE.
*************************************************************************
C88H96N8O16             L                     CAS 639030-70-9  (9278)
Tetra(benzoylcarbamido)cavitand;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       ISE NaCl    rt  0.01M C        K1=5.6          2003MGa (107937)2294
Method: segmented sandwich membrane ISE.
*************************************************************************
C112H120N4O16P4         L                     CAS 195455-62-0  (9276)
1,21,23,25-Tetrapentyl-7,11,15,28-tetra[(diphenylphosphinyl)acetamidomethylene]
cavitand;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       ISE NaCl    rt  0.01M C        K1=18.8         2003MGa (107993)2295
Method: segmented sandwich membrane ISE.
Phosphonic acid diethyl ester derivative: K1=22.2
*************************************************************************
Polymer                      Albumin            (3526)
Albumin;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       vlt KNO3   25°C 0.15M U                          1952TAa (108068)2296
                                        K1(imidazole)< 2.3(bovine)
*************************************************************************
Polymer                      DNA                (4185)
Deoxyribonucleic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Pb++       vlt KNO3   25°C 0.05M C                          1990SEb (108152)2297
                                        K1eff=3.21
Method: cyclic voltammetry. Medium: 0.05 M NaNO3, 0.001 M acetate, pH 5.9.
*************************************************************************
Polymer                      Fulvic acid        (1523)
```

Fulvic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	NaNO3	25°C	0.10M	U			1977BGc	(108181)2298
							K1eff=2.6		

Soil fulvic acid. Constant measured at pH 3.0. At pH 5.0 K1eff=4.1

****

Polymer Gelatin (4187)
Gelatin

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KNO3	30°C	0.15M	U			1963MMa	(108197)2299
							K(carboxyl)=1.87		

****

Polymer (5380)
Haemoglobin;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	oth	none	0.0		U		K1=4.08	1972BSc	(108202)2300

Method: Scatchard plot

****

Polymer Humic acid (1524)
Humic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KNO3	20°C	0.10M	C			1998SAa	(108240)2301
							K1eff=8.37		

Method: potentiometric stripping analysis. Medium: pH 6.2.
By DPASV: K1eff=10.06.

Pb++	vlt	KNO3	22°C	0.02M	U			1994BMa	(108241)2302
							Keff(av.)=7.5 to 5.3		

Method: differential pulse anodic stripping voltammetry. pH=5; HA from Roth

Pb++	vlt	KNO3	25°C	0.02M	U			1994PMa	(108242)2303
							Keff(av.)=7.6 to 4.8		

Method: differential-pulse anodic stripping voltammetry. pH=5; C[L]=2x10-4M;
C[M]=(0.02-1)x10-4 M. Humic acid from Irish moss peat

****

Polymer HL (8040)
Metallothionein;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	cal	oth/un	20°C	var	C	T H		2000CTa	(108258)2304
							K(1/7Zn7L+Pb=1/7PbL+Zn)=5.11		

K'(1/7L+Pb=1/7Pb7L)=5.72
Medium: HClO4/NaOAc buffer, pH 4.7. DH(K)=-25.2 kJ mol-1, DS(K)=11.6 J K-1 mol-1; DH(K')=-17.8, DS(K')=48.8.

****

Polymer HL (3531)
Polyacrylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	U		K1=3.8	B2= 7.30	2000MMa	(108324)2305

Ligand: cross-linked polyacrylic acid, Aquakeep.

Pb++	gl	NaNO3	25°C	0.10M	U				1999MCa	(108325)2306
							K1eff=3.7			
							K2eff=3.4			

Medium: pH 3.3 for K1eff, 3.7 for K2 eff. [L]/[M]=13.1

****

Polymer PEG 400 (6647)
Polyethylene glycol 400;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	dis	oth/un	25°C	0.01M	U		K1=0.7		1990SVa	(108336)2307

Medium: 0.01 M Bu4.B(C6H5)4

****

Polymer Pectin (7149)
Polygalacturonic acid; (C6H8O6)n

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	gl	oth/un	20°C	1.00M	U		K1=3.74		1994DMa	(108344)2308

****

Polymer (6896)
Polymaleic acid-methacrylic acid copolymer; (-C4H2O3.CH2.C(CH3)COOH-)n

---

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++	dis	NaCl	25°C	0.10M	U				1993KHa	(108350)2309
							K1eff=6.7			

Method: dialysis; pH=8 [Pb]=0.00005 M

****

e- HL Electron (442)
Electron;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Pb++++	EMF	none	25°C	0.00	U	T			1969GMb	(783)2310
							K=57.167(1690.95mV)			

K: PbO2(s) + 4H+ + SO4-- + 2e=PbSO4(s) + 2H2O. K=61.091(1685.78mV,5 C), 60.047(1686.75mV,10 C), 58.087(1689.35mV,20 C)

Pb++++ EMF none 35°C 0.00 U T 1969GMb (784)2311
K=55.435(1694.71mV)
K: PbO2(s) + 4H+ + SO4-- + 2e=PbSO4(s) + 2H2O. K=53.827(1698.94mV,45 C), 52.342(1703.99mV,55 C)

Pb++++ EMF none 25°C 0.0 U 1965CDc (785)2312
K=57.142, 1690.1 mV
K: PbO2(s) + 4H + SO4-- + 2e = PbSO4(s) + 2H2O

Pb++++ EMF NaClO4 25°C 1.10M U I 1962BDb (786)2313
K(Pb+2e=Pb(II))=56.0(1655 mV)
Medium: HClO4. K=57.1(5.8 M,1690 mV)

Pb++++ EMF none 25°C 0.0 U H 1959BSf (787)2314
K=57.04(1687.1 mV)
K: PbO2(s)+4H+SO4+2e=PbSO4(s)+2H2O. DH(K)=-304.3 kJ mol-1, 5 to 55 C

Pb++++ oth none 25°C 0.0 U 1952LAb (788)2315
K=49.19(1455 mV)
K: PbO2(s)+4H+2e=Pb(II)+2H2O

Pb++++ EMF none 25°C 0.0 U T 1935HAa (789)2316
K=56.99(1684.9 mV)
K: PbO2(s)+4H+SO4+2e=PbSO4(s)+2H2O. K=61.91(0 C;1676.9 mV),59.83(10 C;1680.0 mV),57.90(20 C;1683.2 mV),56.11(30 C;1686.7 mV);51.41(60 C;1698.6 mV)

Pb++++ EMF none 25°C 0.0 U 1934ABa (790)2317
K=19.95(295 mV)
K: 3PbO2(s)+2H2O+4e=Pb3O4(s)+4OH. K(PbO2+H2O+2e=3PbO(s)+2OH)=8.41(248.8 mV)

Pb++++ EMF oth/un 25°C 6.0M U I 1922GLa (791)2318
K(Pb+2e=Pb(II))=59(1.75 V)
Medium: HNO3. K=58(4 to 2 M;1720 mV), 57(1 to 0.5 M;1690 mV)

Pb++++ EMF oth/un 18°C 8.40M U 1922GRa (792)2319
K=7.20(208 mV)
Medium: KOH. K: Pb(OH)6+2e=Pb(II)(OH)4+2OH
****
Br- HL Bromide CAS 10035-10-6 (19)
Bromide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++++ nmr NaClO4 25°C 0.3M C 1978MEa (2217)2320
K((CH3)3Pb+Br)=0.29
Method: 1H nmr. Metal is (CH3)3Pb+.

Pb++++ ISE alc/w 25°C 93% C M 1974SHb (2218)2321
K(PbPh3+L)=2.91

```
                                        K(PbPh2+L)=4.49
                                        K(PbPh2+2L)=7.50
                                        K(PbPh2L+L)=3.01
Medium: 93% MeOH. K(PbPh2+3L)=8.55 and K(PbPh2L2+L)=1.053
--------------------------------------------------------------------------------
Pb++++     dis NaNO3  30°C 0.10M U        K1=5.7         1965SMg  (2219)2322
                                        Kd(Ph3PbOH(CHCl3)+L)=-2.2
                                        Kd(Ph3PbOH(MIBK)+L)=-1.5
--------------------------------------------------------------------------------
Pb++++     ISE oth/un 25°C  1.0M U                       1964KMb  (2220)2323
                                        B4=25
                                        Kso(PbBr2)=-5.37
********************************************************************************
CO3--                  H2L    Carbonate        CAS 465-79-6  (268)
Carbonate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++++     nmr NaClO4 25°C  0.3M C                       1978MEa  (3344)2324
                                        K((CH3)3Pb+CO3)=2.60
Method: 1H nmr. Metal is (CH3)3Pb+.
********************************************************************************
Cl-                     HL    Chloride         CAS 7647-01-0  (50)
Chloride;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Pb++++     nmr NaClO4 25°C  0.3M C                       1978MEa  (5433)2325
                                        K((CH3)3Pb+Cl)=0.086
Method: 1H nmr. Metal is (CH3)3Pb+.
--------------------------------------------------------------------------------
Pb++++     dis none   20°C  0.0  U    M                 1974BCa  (5434)2326
                                        K((C2H5)3Pb+2Cl)=0.05
                                        K((C2H5)3Pb+3Cl)=0.70
--------------------------------------------------------------------------------
Pb++++     ISE alc/w  25°C  93%  C    M                 1974SHb  (5435)2327
                                        K(PbPh3+L)=2.66
                                        K(PbPh2+L)=4.26
                                        K(PbPh2+2L)=6.91
                                        K(PbPh2L+L)=2.65
Medium: 93% MeOH, 1 M LiClO4
--------------------------------------------------------------------------------
Pb++++     ix  oth/un 25°C  8.0M U                      1972BAa  (5436)2328
                                        K(Et2Pb+L) > 0.5
                                        K(Et2Pb+2L)=0.90
                                        K(Et2Pb+3L)=1.05
                                        K(Et2Pb+4L)=1.0
Medium: (H,Li)Cl. K(Et3Pb+L)=0.54, K(Et3Pb+2L)=0.08, K(Et3Pb+3L)=-1
--------------------------------------------------------------------------------
Pb++++     EMF NaClO4 25°C  1.0M U    M                 1972PMa  (5437)2329
```

K(Me3Pb+L)=0.76
K(Me2Pb+2L)=1.31
K(Et2Pb+L)=0.96
K(Et2Pb+2L)=1.74
K(Pr2Pb+L)=0.99, K(Pr2Pb+2L)=1.84. K(Me3Pb+L)=0.32, K(Et3Pb+L)=0.57

Pb++++ sol none 20°C 0.0 U 1969PFb (5438)2330
Kso(Et3PbL(s))=-2.85
Kso(Pr3PbL(s))=-4.00
Kso(Bu3PbL(s))=-5.67

Pb++++ dis NaNO3 30°C 0.10M U 1965SMg (5439)2331
Kd(Ph3PbOH(CHCl3)+L)=-3.1
K(Ph3Pb+L)=4.8
Kd(Ph3PbOH(i-BuCOMe)+L=Ph3PbL(i-BuCOMe)+OH)=-3.0

Pb++++ sol oth/un 20°C var U 1960SLb (5440)2332
K(PbO2(s)+4H+6L=PbL6+2H2O) > 10

****

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

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

---

Pb++++ EMF NaClO4 25°C 1.0M U 1970PMb (7107)2333
K(Me2Pb+F)=1.73
K(Me2Pb+2F)=2.89
K(Et2Pb+F)=1.54
K(Et2Pb+2F)=2.55
Method: quinhydrone electrode. K(Pr2Pb+F)=1.61, K(Pr2Pb+2F)=2.54
K(Me3Pb+F)=0.81, K(Et3Pb+F)=0.53

****

I- HL Iodide CAS 10034-85-2 (20)
Iodide;

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

---

Pb++++ nmr NaClO4 25°C 0.3M C 1978MEa (8316)2334
K((CH3)3Pb+I)=0.28
Method: 1H nmr. Metal is (CH3)3Pb+.

Pb++++ ISE alc/w 25°C 93% C M 1974SHb (8317)2335
K(PbPh3+L)=3.432
K(PbPh2+L)=4.88
K(PbPh2+2L)=8.56
K(PbPh2L+L)=3.68
Medium: 93% MeOH. K(PbPh2+3L)=10.5 and K(PbPh2L2+L)=1.95

Pb++++ gl alc/w 25°C 93% U 1974SHb (8318)2336
K((C6H5)2Pb+I)=4.88

K((C6H5)2Pb+2I)=8.56
K((C6H5)2Pb+3I)=10.51
K((C6H5)3Pb+I)=3.44
Medium: 93% v/v MeOH/H2O, 1 M LiClO4
****
OH- HL Hydroxide (57)
Hydroxide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++++ nmr NaClO4 25°C 0.30M C 1977SBa (11910)2337
K((CH3)3Pb+OH)=4.87
Metal is (CH3)3Pb+. K((CH3)3Pb+(CH3)3PbOH=((CH3)3Pb)2OH)=1.49.
Method: 1H nmr.

Pb++++ sol none ? 0.00 U 1969CHa (11911)2338
Ks=-4.06
Ks: beta-PbO2(s)+2OH=PbO3+H2O. Also data for PbO1.57PbO1.33

Pb++++ gl KNO3 25°C 0.10M U 1969ZPa (11912)2339
*K(Me3Pb+H2O=Me3PbOH+H)=-8.70
For Et3Pb, *K1=-9.05. For Pr3Pb, *K1=-9.20. For Bu3Pb, *K1=-9.30

Pb++++ sol none 25°C 0.0 M 1967CHa (11913)2340
Ks=-4.13
Ks: PbO2(beta,s)+2OH=PbO2(OH)2

Pb++++ gl NaClO4 25°C 3.00M U 1966FTa (11914)2341
*B2(Me2Pb)=-15.54
*B3(Me2Pb)=-28.52
*B(2,2-Me2Pb)=-10.83
*B(3,4-Me2Pb)=-24.31

Pb++++ dis NaNO3 30°C 0.10M U 1965SMg (11915)2342
K(Ph3Pb+L)=7.7
Kd: (Ph)3Pb(OH) = (Ph)3Pb(OH)(org) Kd=2.9(org=CHCl3) 2.2(iso-BuCOMe)

Pb++++ sol none 25°C 0.0 U 1962VIa (11916)2343
Ks(PbO2(s,beta)=H2Pb(OH)6(aq))=-4, Ks(PbO2(s,beta)+H=H3Pb(OH)6)=-4.8

Pb++++ sol none 25°C 0.0 U 1929TOa (11917)2344
I=0 corr. Ks(PbO2(s)+2OH+2H2O=Pb(OH)6), Ks(PbO2(s)+4H2O=Pb(OH)6+2H)=-32.36
****
PO4--- H3L Phosphate CAS 7664-38-2 (176)
Phosphate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++++ nmr NaClO4 25°C 0.30M C 1978MEa (13300)2345
K((CH3)3Pb+HL)=1.88

Method: 1H nmr. Metal is (CH3)3Pb+.

****

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

Thiocyanate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++++	nmr	NaClO4	25°C	1.5M	C			1978MEa	(15219)2346
							K((CH3)3Pb+SCN)=-0.42		

Method: 1H nmr. Metal is (CH3)3Pb+.

Pb++++	ix	oth/un	25°C	var	U			1974BEc	(15220)2347
							K(CH3)3Pb+L)=0.32		

Pb++++	sp	oth/un	?	var	U			1953FSa	(15221)2348
							B3=0.39		

****

SO3-- H2L Sulfite CAS 7782-99-2 (801)

Sulfite;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++++	nmr	NaClO4	25°C	0.30M	C			1978MEa	(15473)2349
							K((CH3)3Pb+SO3)=1.27		

Method: 1H nmr. Metal is (CH3)3Pb+.

****

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

Sulfate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++++	con	non-aq	25°C	100%	U			1966GKa	(16467)2350
							K(H+Pb(HL)6)=2.74		
							K(H+HPb(HL)6)=1.92		

2nd method:freezing point. Medium:H2SO4. m units

Pb++++	con	mixed	10°C	?	U			1957GRa	(16468)2351
							K(H(Pb(HL)6+H)=1.96		
							K(Pb(HL)6+H)=2.80		

Medium: H2SO4. Also by freezing point

****

S2O3-- H2L Thiosulfate CAS 73686-28-7 (177)

Thiosulfate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++++	nmr	NaClO4	25°C	0.30M	C			1978MEa	(16895)2352
							K((CH3)3Pb+S2O3)=2.14		

Method: 1H nmr. Metal is (CH3)3Pb+.

****

SeO3-- H2L Selenite CAS 7783-00-8 (2391)
Selenite;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++++	nmr	NaClO4	25°C	0.30M	C		K((CH3)3Pb+SeO3)=1.95	1978MEa (17069)	2353

Method: 1H nmr. Metal is (CH3)3Pb+.

****

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
Pb++++	nmr	NaClO4	25°C	0.30M	C		K((CH3)3Pb+L)=0.86	1977SBa (17638)	2354

Method: 1H nmr. Metal is (CH3)3Pb+.

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++++	nmr	NaClO4	25°C	0.30M	C		K((CH3)3Pb+L)=0.52	1977SBa (19379)	2355

Method: 1H nmr. Metal is (CH3)3Pb+.

****

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
Pb++++	nmr	NaClO4	25°C	0.30M	C		K((CH3)3Pb+L)=0.97	1977SBa (20125)	2356

Method: 1H nmr. Metal is (CH3)3Pb+.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++++	gl	NaClO4	25°C	1.00M	U		K1=0.54 K(Me3Pb+L)=0.54 K(Et3Pb+L)=0.44 K(Me2Pb+L)=2.62 K(Me2Pb+2L)=3.62	1969PMa (20126)	2357

K(Et2Pb+L)=2.77, K(Et2Pb+2L)=3.28; K(Pr3Pb+L)=2.94, K(Pr2Pb+2L)=3.95;
K(Ph2Pb+L)=3.50, K(Ph2Pb+2L)=4.90

****

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
Pb++++	nmr	NaClO4	25°C	0.30M	C			1977SBa (25039)	2358

K((CH3)3Pb+L)=1.08
Method: 1H nmr. Metal is (CH3)3Pb+.
****
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
---
Pb++++ nmr NaClO4 25°C 0.30M C 1977SBa (31507)2359
K((CH3)3Pb+L)=0.82
Method: 1H nmr. Metal is (CH3)3Pb+.
****
C5H10O2 HL Pivalic acid CAS 75-98-9 (3026)
Trimethylethanoic acid, 2,2-Dimethylpropanoic acid; (CH3)3C.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++++ nmr NaClO4 25°C 0.30M C 1977SBa (40219)2360
K((CH3)3Pb+L)=1.22
Method: 1H nmr. Metal is (CH3)3Pb+.
****
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
---
Pb++++ vlt NaCl 22°C 0.10M C 1994MBb (41366)2361
K(Et3Pb+L)=6.28
K(Me3Pb+L)=5.49
Methods: differential pulse anodic and cathodic voltammetry.
****
C10H17N3O6S H3L Glutathione CAS 70-18-8 (333)
Glutamyl-cysteinyl-glycine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++++ nmr NaClO4 25°C 0.30M C 1981RBa (75139)2362
K(Pb+H3L)=0.08
K(Pb+H2L)=1.03
Method: 1H nmr. Metal is (CH3)3Pb+
****
C15H11N3O HL PAN CAS 85-85-8 (572)
1-(2-Pyridylazo)-2-naphthol; C5H4N.N:N.C10H6.OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Pb++++ sp diox/w 25°C 20% U 1967PIa (91236)2363
K(Pb(Et)2+L)=12.08
Medium: 20% dioxan, 0.1 M ClO4-

REFERENCES

2004ADa G Ambrosi,P Dapporto,V Fusi; J.Chem.Soc.,Dalton Trans.,3468 (2004)
2004BBe A Blake,A Bencini,V Lippolis,C Wilson; J.Chem.Soc.,Dalton Trans.,2771 (2004)
2004CCb X Cui,H Carapuca,R Delgado; J.Chem.Soc.,Dalton Trans.,1743 (2004)
2004FBa E Farkas,D Batka,Z Pataki; J.Chem.Soc.,Dalton Trans.,1248 (2004)
2004FRa M Fainerman-Melnikova,G Rounaghi; J.Chem.Soc.,Dalton Trans.,122 (2004)
2004MFa P Marcos,S Felix,J Ascenso,M Segurado; New J.Chem.,28,748 (2004)
2004PFa J Price,M Fainerman-Melnikova,F Lindoy; J.Chem.Soc.,Dalton Trans.,3715 (2004)
2003ADa F Arnaud-Neu,R Delgado,S Chaves; Pure & Appl.Chem.,75,71 (2003)
2003AFb G Ambrosia,M Formica,V Fusi,M Micheloni; Inorg.Chim.Acta,356,203 (2003)
2003AHa I Ahmed; J.Chem.Eng.Data,48,272 (2003)
2003CCb X Cui,M Cabral,J Costa,R Delgado; Inorg.Chim.Acta,356,133 (2003)
2003GNa M Ganjali,L Naji,T Poursaberi,S Haghgoo; Anal.Chim.Acta,475,59 (2003)
2003ISa V Ijeri,A Srivastava; Polyhedron,22,569 (2003)
2003KPa K Kilian,K Pyrzynska; Talanta,60,669 (2003)
2003MGa E Malinowksa,L Gorski,D Wojciechowska; New J.Chem.,27,1440 (2003)
2003MYc A Merce,L Yano,M Khan,G Bouet; J.Solution Chem.,32,1075 (2003)
2003OHa S Oshima,N Hirayama,K Kubono,T Honjo; Talanta,59,867 (2003)
2003PLa R Portanova,L Lajunen,M Tolazzi,J Piispa; Pure & Appl.Chem.,75,495 (2003)
2002AAa M Aragoni,M Arca,F Demartin,V Lippolis; Inorg.Chem.,41,6623 (2002)
2002BBe C Bazzicalupi,A Bianchi,B Valtancoli; Inorg.Chim.Acta,329,93 (2002)
2002BSc H Buschmann,E Schollmeyer; J.Coord.Chem.,55,287 (2002)
2002DCb R Delgado,M Cabral,R Castanheira,A Zhang; Polyhedron,21,2265 (2002)
2002EAa D Esteban,F Avecilla,J Mahia,A de Blas; Inorg.Chem.,41,4337 (2002)
2002FBa R Ferrari,S Bernes,L Gasque; Inorg.Chim.Acta,339,193 (2002)
2002FGa R Fenton,R Gauci,P Junk,L Lindoy,J Price; J.Chem.Soc.,Dalton Trans.,2185 (2002)
2002FGc M Formica,L Giorgi,V Fusi,M Micheloni; Polyhedron,21,1351 (2002)
2002ISa V Ijeri,A Srivastava; J.Chem.Eng.Data,47,346 (2002)
2002KAb J Kim,T Ahn,M Lee,A Leong,L Lindoy; J.Chem.Soc.,Dalton Trans.,3993 (2002)
2002KMb D Kong,J Mao,A Martell,A Clearfield; Inorg.Chim.Acta,338,78 (2002)
2002RYa G Rounaghi,A Yazdi,Z Monsef; J.Inclusion Phenom.,43,231 (2002)
2002SEa J Sanchiz,P Esparza,D Villagra,A Mederos; Inorg.Chem.,41,6048 (2002)
2002SFa M Saladini,E Ferrari,L Menabue; J.Inorg.Biochem.,92,121 (2002)
2002SMc M Saladini,L Menabue,E Ferrari; J.Inorg.Biochem.,88,61 (2002)
2002TBa L Tei,A Blake,A Bencini,M Schroder; Inorg.Chim.Acta,337,59 (2002)
2002VOa V Vasil'ev,T Orlova,T Balashova; Koord.Khim.28,751 (2002)
2002WHa G Wei,T Hambley,G Lawrence et al.; Aust.J.Chem.,55,667 (2002)
2002WMa J Wang,A Martell,J Reibenspies; Inorg.Chim.Acta,328,53 (2002)
2001ABa P Arranz,C Bazzicalupi,A Bencini; Inorg.Chem.,40,6383 (2001)
2001ACa G Arena,A Contino,E Longo,D Sciotto; J.Chem.Soc.,Perkin Trans.II,2287 (2001)
2001BCe H Buschmann,E Cleve,K Jansen; Anal.Chim.Acta,437,157 (2001)
2001CDb J Costa,R Delgado,M Duarte,V Felix; Supramol.Chem.,13,333 (2001)
2001CKb A Crouch,L Khotseng,M Polhuis; Anal.Chim.Acta,448,231 (2001)

2001DMa F Le Derf,M Mazari,M Salle; Chem.Eur.J.,7,447 (2001)
2001FLa R Fenton,L Lindoy,R Luckay; Australian J.Chem.,54,59 (2001)
2001GLb V Gramlich,P Lubal,S Musso,G Anderegg; Helv.Chim.Acta,84,623 (2001)
2001KLb A Krezel,W Lesniak,P Mlynarz,W Bal; J.Inorg.Biochem.,84,77 (2001)
2001KMb S Katsuta,T Motoyama,Y Takeda,M Ouchi; Bull.Chem.Soc.Jpn.,74,311 (2001)
2001KZa E Kharkhaneei,M Zebarjadian,M Shamsipur; J.Solution Chem.,30,323 (2001)
2001LIa S Lee,R Izatt,X Zhang; Inorg.Chim.Acta,317,174 (2001)
2001LWa L-D Li,Y Wei,A-J Tong; Anal.Chim.Acta,427,29 (2001)
2001MRa Z Monsef,G Rounaghi,A Sarafraz; J.Inclusion Phenom.,39,321 (2001)
2001MTb A Matilla,J Tercero,C Valenzuela; J.Solution Chem.,30,549 (2001)
2001OHb S Oshima,N Hirayama,K Kubono,H Kokusen; Anal.Chim.Acta,441,157 (2001)
2001PHa W Perera,G Hefter,P Sipos; Inorg.Chem.,40,3974 (2001)
2001RKa G Rounaghi,M Kazemi,M Soorgi; Indian J.Chem.,40A,345 (2001)
2001SBa H Soares,M Barros; Electroanalysis,13,325 (2001)
2001SGd P Singh,B Garg,D Kumar,B Singh; Indian J.Chem.,40A,1339 (2001)
2001SKd I Shehatta,I Kenawy,A Askalany,A Hassan; Can.J.Chem.,79,42 (2001)
2001SSd P Sharma,B Swaika,S Mittal,S Sindhwani; Indian J.Chem.,40A,1076 (2001)
2001SZb M Shamsipur,J Zolgharein; J.Inclusion Phenom.,40,41 (2001)
2001WKa J Wang,D Kong,A Martell; Inorg.Chim.Acta,324,194 (2001)
2001ZKd X Zhang,K Krakowiak,J Bradshaw,R Izatt; Supramol.Chem.,13,287 (2001)
2000AGa N Altounian,A Glatfelter,S Bai; J.Phys.Chem.B,104,4723 (2000)
2000BBc A Bencini,A Bianchi,P Paoletti; Inorg.Chim.Acta,300/302,653 (2000)
2000BBf C Bazzicalupi,P Bandyopadhyay,A Bianchi; Eur.J.Inorg.Chem.,2111 (2000)
2000CDc B Cruz,J Diaz-Cruz,C Arino; Electroanalysis,12,1130 (2000)
2000CDd M Cabral,R Delgado,M Duarte; Helv.Chim.Acta,83,702 (2000)
2000CMa A Costero,E Monrabal,C Andreu; J.Chem.Soc.,Dalton Trans.,361 (2000)
2000CTa D Chu,Y tang,Y Huan,W He; Thermochim.Acta,352/3,205 (2000)
2000DSb C Da Costa,H Sigel; Inorg.Chem.,39,5985 (2000)
2000FFa M Formica,V Fusi,M Micheloni; Polyhedron,19,2501 (2000)
2000FOa A Felmy,L Onishi,N Foster; Geochim.Cosmo.Acta,64,3165 (2000)
2000GDa L Goldenberg,N Denisov,J Biernat; J.Inclusion Phenom.,38,171 (2000)
2000GFb A Gaber,O Farghaly,M Ghandour,H El-Said; Monatsh.Chem.,131,1031 (2000)
2000KAa Y Kanekiyo,S Aizawa,S Funahashi; Inorg.Chim.Acta,298,154 (2000)
2000MMa C Morlay,Y Mouginot,M Cromer; Can.J.Chem.,78,1637 (2000)
2000PSa M Peters,L Siegfried,T Kaden; J.Chem.Soc.,Dalton Trans.,4664 (2000)
2000RCb G Rounaghi, M Chamsaz, E Chiamati; Zh.Obshch.Khim.70,1449 (2000)
2000RCc G Rounaghi,M Chamsaz,A Nezhadali; J.Inclusion Phenom.,38,153 (2000)
2000SCb H Soares,P Conde; Anal.Chim.Acta,421,103 (2000)
2000SIa M Saladini,D Iacopino,L Menabue; J.Inorg.Biochem.,78,355 (2000)
2000TBa L Tei,A Blake,M Schroder; J.Chem.Soc.,Dalton Trans.,4122 (2000)
2000XEa W Xu,R Evilia; Inorg.Chim.Acta,308,103 (2000)
2000ZKb X Zhang,K Krakowiak,J Bradshaw,R Izatt; Ind.Eng.Chem.Res.,39,3516 (2000)
1999AMa S Afshar,S Marcus,L Gahan; Australian J.Chem.,52,1 (1999)
1999AVb R Al-Farawati,C Van den Berg; Marine Chem.,63,331 (1999)
1999BBa C Bazzicalupi,A Bencini,A Bianchi; J.Chem.Soc.,Dalton Trans.,1101 (1999)
1999BBb C Bazzicalupi,A Bencini,P Paoletti; J.Chem.Soc.,Dalton Trans.,393 (1999)
1999BBc A Bobrowski,A Bond,S Ellis; Inorg.Chim.Acta,293,223 (1999)
1999BMa M Borsari,L Menabue,M Saladini; Polyhedron,18,1983 (1999)
1999CDa J Costa,R Delgado,M Drew,V Felix; J.Chem.Soc.,Dalton Trans.,4331 (1999)
1999CDb M Cabral,R Delgado; Polyhedron,18,3479 (1999)

1999CPa A Ceresa,E Pretsch; Anal.Chim.Acta,395,41 (1999)
1999CUa I Cukrowski; Electroanalysis,11,606 (1999)
1999DSa C Da Costa,H Sigel; J.Biol.Inorg.Chem.,4,508 (1999)
1999DWa P Davies, K Wainwright; Inorg.Chim.Acta,294,103 (1999)
1999GAa M Ghandour,E Aboul-Kasim,A Amrallah; J.Indian Chem.Soc.,76,480 (1999)
1999HSa T Hayashita,H Sawano,T Higuchi; Anal.Chem.(USA),71,791 (1999)
1999KSb H Katano,M Senda; Bull.Chem.Soc.Jpn.,72,2085 (1999)
1999LLa P Letkeman,L Letkeman,R Motekaitis et al; J.Coord.Chem.,47,381 (1999)
1999MCa C Morlay,M Cromer,Y Mouginot; Talanta,48,1159 (1999)
1999MGa J Mihalick,W Griffiths,J Muten; J.Solution Chem., 28,1019 (1999)
1999RPa K Raouf-Benchekroun,C Picard,P Tisnes; J.Inclusion Phenom.,34,277 (1999)
1999SPc M Shamsipur,H Pouretedal; J.Solution Chem., 28,1187 (1999)
1999TMa Y Takeda,Y Mochizuki,M Tanaka,Y Kudo; J.Inclusion Phenom.,33,217 (1999)
1998ABc R Addleman,J Bennett,S Tweedy; Talanta,46,573 (1998)
1998ABf I Atkinson,K Byriel,P Chia,L Lindoy; Australian J.Chem.,51,985 (1998)
1998CCc S Canepari,P Castellano,B Fazio et al; Ann.Chim.(Rome),88,35 (1998)
1998CCd S Chaves,A Cerva,R Delgado; Polyhedron,17,93 (1998)
1998CCf E Cukrowska,I Cukrowski; Talanta,47,1175 (1998)
1998CDa J Costa,R Delgado,M Drew,V Felix; J.Chem.Soc.,Dalton Trans.,1063 (1998)
1998CLa I Cukrowski,S Loader; Electroanalysis,10,877 (1998)
1998DDa A Damsyik,P Davies,C Keeble,M Taylor; J.Chem.Soc.,Dalton Trans.,703 (1998)
1998DLa C Davis,A Leong,L Lindoy; Australian J.Chem.,51,189 (1998)
1998DTa A Danil de Namor,D Tanaka; J.Chem.Soc.,Faraday Trans.,94,3105 (1998)
1998GRa M Ganjali,A Rouhollahi,M Shamsipur; J.Chem.Soc.,Faraday Trans.,94,1959 (1998)
1998GZa N Golovanov,N Zorina et al.; Zh.Neorg.Khim.43(3)444 (1998)
1998HBc K Hu,J Bradshaw,V Pastushok,K Krakowiak; J.Org.Chem.,63,4786 (1998)
1998IHb M Islam,P Hambright; Transition Met.Chem.,23,727 (1998)
1998KBc V Kuntic,S Blagojevic,D Malesev; Monatsh.Chem.,129,41 (1998)
1998PGc F Pina,E Garcia-Espana,S Luis; Inorg.Chem.,37,3935 (1998)
1998SAa H Soares,A Almeida,M Castro; Analyst,123,1377 (1998)
1998YGa A Yatsimirsky,P Gomez-Tagle; Inorg.Chim.Acta,273,167 (1998)
1997BCc H-J Buschmann,E Cleve,E Schollmeyer; J.Coord.Chem.,42,127 (1997)
1997BLd Y Baran,G Lawrance,E Wilkes; Polyhedron,16,599 (1997)
1997CCa S Chaves,A Cerva,R Delgado; J.Chem.Soc.,Dalton Trans.,4181 (1997)
1997CCb N Choi,M Constantinou,R Williams; Polyhedron,16,355 (1997)
1997CDb J Costa,R Delgado,M Figueira; J.Chem.Soc.,Dalton Trans.,65 (1997)
1997DBb V Deluchat,J-C Bollinger et al; Talanta 44,897 (1997)
1997DFc C Daughney,J Fein; Geochim.Cosmo.Acta,61,719 (1997)
1997DHa A De Sousa,R Hancock,J Reibenspies; J.Chem.Soc.,Dalton Trans.,939 (1997)
1997DQa R Delgado,S Quintino,M Teixeira; J.Chem.Soc.,Dalton Trans.,55 (1997)
1997GAc R Ghavami,H Abdollahi; Iran J.Chem.Chem.Eng.,16,22 (1997)
1997GCa C Gerard,H Chehhal; Bull.Soc.Chim.Fr.,134,1069 (1997)
1997KSd H Katano,M Senda; Bull.Chem.Soc.Jpn.,70,2489 (1997)
1997LTa J Laing,R Taylor,A Chang; J.Chem.Soc.,Dalton Trans.,1195 (1997)
1997RWa S Rahardjo,K Wainwright; Inorg.Chim.Acta,255,29 (1997)
1997SHa A De Sousa,R Hancock,J Reibenspies; J.Chem.Soc.,Dalton Trans.,2831 (1997)
1997VZa V Vasil'ev,G Zaitseva,N Tukumova; Zh.Neorg.Khim.,42,229 (1997)

1997WTa J Weeks,M Taylor,K Wainwright; J.Chem.Soc.,Dalton Trans.,317 (1997)
1996AEa I Ahmed,O El-Roudi,A Boraei; J.Chem.Eng.Data,41,386 (1996)
1996AKb M Ahearn,J Kim,A Leong,L Lindoy; J.Chem.Soc.,Dalton Trans.,3591 (1996)
1996BBa A Bencini,A Bianchi,C Giorgi et al; Inorg.Chem.,35,1114 (1996)
1996BBd G Battistuzzi,M Borsari et al; Inorg.Chem.,35,4239 (1996)
1996BBh C Bazzicalupi,A Bancini,A Bianchi; Inorg.Chim.Acta,246,125 (1996)
1996BCc J Boeyens,L Cook,P Duckworth; Inorg.Chim.Acta,246,321 (1996)
1996BFa E Bottari,M Festa; Chem.Speciation and Bioavail.,8,75 (1996)
1996BJa L Burai,S Jakab,R Kiraly,I Lazar,I Toth; J.Chem.Soc.,Dalton Trans.,1113 (1996)
1996BPb G Bates,D Parker,P Tasker; J.Chem.Soc.,Perkin Trans.II,1117 (1996)
1996CHa I Cukrowski,R Hancock,R Luckay; Anal.Chim.Acta,319,39 (1996)
1996CSa M Correia dos Santos,M Simoes Goncalves; Electroanalysis,8,178 (1996)
1996DHa K Dhont,G Herman,A Fabretti et al; J.Chem.Soc.,Dalton Trans.,1753 (1996)
1996DTa P Davies,M Taylor et al; Inorg.Chim.Acta,246,1 (1996)
1996ESa G Escandar,J Salas Peregrin,L Sala; Polyhedron,15,2251 (1996)
1996FOa M Fiore,S Orecchio,V Romano,G Ruggirello; J.Chem.Soc.,Dalton Trans.,4597 (1996)
1996GGa B Grabaric,Z Grabaric et al; Anal.Chim.Acta,325,135 (1996)
1996HVa B Hernlem,L Vane,G Sayles; Inorg.Chim.Acta,244,179 (1996)
1996LHb R Luckay,R Hancock,I Cukrowski; Inorg.Chim.Acta,246,159 (1996)
1996LMa Y Li,A Martell,R Hancock et al; Inorg.Chem.,35,404 (1996)
1996MBb L Miao,D Bell,G Rothremel,S Jackels; Supramol.Chem.,6,365 (1996)
1996MSa T Miquel,M Sanchez,J Macias; Can.J.Chem.,74,2454 (1996)
1996PSa D Puranik,A Singh,E Chang; J.Coord.Chem.,39,321 (1996)
1996SJa R Sharma,S Joseph; Indian J.Chem.,35A,639 (1996)
1996SSc A Semnani,M Shamsipur; Pol.J.Chem.,70,74 (1996)
1996STa H Srivastava,D Tiwari; J.Chem.Eng.Data,41,821 (1996)
1996TBb M Tendero,A Benito,R Martinez-Manez; J.Chem.Soc.,Dalton Trans.,4121 (1996)
1995ABa K Adam,D Baldwin,P Duckworth et al; J.Chem.Soc.,Dalton Trans.,1127 (1995)
1995BBd F Badaoui,J Bourson; Anal.Chim.Acta,302,341 (1995)
1995BGa E Brucher,B Gyora,J Emri,S Jakab et al; J.Chem.Soc.,Dalton Trans.,3353 (1995)
1995BLa K Bazakas,I Lukes; J.Chem.Soc.,Dalton Trans.,1133 (1995)
1995CCb I Cukrowski,E Cucrowska et al; Anal.Chim.Acta,312,307 (1995)
1995CDc A Casale,A De Robertis,S Sammartano; Thermochim.Acta,255,109 (1995)
1995CMa I Cukrowski,F Marsicano,R Hancock et al; Polyhedron,14,1661 (1995)
1995CMb I Cukrowski,F Marsicano,R Hancock et al.; Electroanalysis,7,763 (1995)
1995DKa S David,Kabir-Ud-Din; J.Indian Chem.Soc.,72,475 (1995)
1995FFa G Feroci,A Fini,G Fazio,P Zuman; Anal.Chem.(USA),67,4077 (1995)
1995GSa J Ghasemi,M Shamsipur; J.Coord.Chem.,36,183 (1995)
1995LLa S Lincoln,J Lucas,T Rodopoulus; Inorg.Chim.Acta,237,147 (1995)
1995LMa Y Li,A Martell; Inorg.Chim.Acta,231,159 (1995)
1995MHa H Maumela,R Hancock,L Carlton; J.Am.Chem.Soc.,117,6698 (1995)
1995PMa C Pippin,T McMurry et al; Inorg.Chim.Acta,239,43 (1995)
1995RRe D Rao,G Reddy,E Ramaiah,K Ram; Acta Ciencia Indica, Chem.,21,111 (1995)
1995SMb Y Sun,R Motekaitis,A Martell; J.Coord.Chem.,36,235 (1995)
1995STa H Srivastava,D Tiwari; Indian J.Chem.,34A,550 (1995)

1995TDa M Turonek,P Duckworth et al; Inorg.Chim.Acta,230,51 (1995)
1995TUa M Tutunji; Electroanalysis,7,390 (1995)
1995WIa P Wang,R Izatt,S Gillespie,J Oscarson; J.Chem.Soc.,Faraday Trans.,91,4207 (1995)
1994ABa A Andres,C Bazzicalupi,A Bencini et al; Inorg.Chem.,33,617 (1994)
1994ABd J Aguilar,A Bianchi,E Garcia-Espana; J.Chem.Soc.,Dalton Trans.,637 (1994)
1994ABg K Adam,D Baldwin,A Bashall et al; J.Chem.Soc.,Dalton Trans.,237 (1994)
1994ACa G Annibale,L Cattalini,F Guidi; J.Chem.Soc.,Dalton Trans.,731 (1994)
1994BMa M Bugarin,A Mota et al; Anal.Chim.Acta,294,271 (1994)
1994CDa M Cabral,R Delgado; Helv.Chim.Acta,77,515 (1994)
1994DMa K Davarski,S Manolov,I Petrova et al; J.Coord.Chem.,33,75 (1994)
1994HCb R Hancock,I Cukrowski,E Cukrowska; J.Chem.Soc.,Dalton Trans.,2679 (1994)
1994JBb R Joshi,C Bhandari; Indian J.Chem.,33A,432 (1994)
1994LLb E Larsen,S Larsen,G Paulsen et al; Acta Chem.Scand.,48,107 (1994)
1994MBb M Mikac,M Branica; Electroanalysis,6,37 (1994)
1994MKa H Miyake,N Kato,Y Kojima,A Sugihara; Inorg.Chim.Acta,223,121 (1994)
1994MPc M Mimouni,Y Pointud,J Juillard; Bull.Soc.Chim.Fr.,131,58 (1994)
1994PMa J Pinheiro,A Mota,M Goncalves; Anal.Chim.Acta,284,525 (1994)
1994RAa A Ronhollahi,M Amini,M Shamsipur; J.Solution Chem.,23,63 (1994)
1994ZMa J-Z Zhang,F Millero; Anal.Chim.Acta,284,497 (1994)
1993ABc A Andres,A Bencini,A Carachalios et al; J.Chem.Soc.,Dalton Trans.,3507 (1993)
1993BNb M Belcastro,A Napoli; Ann.Chim.(Rome),83,451 (1993)
1993CDa J Costa,R Delgado; Inorg.Chem.,32,5257 (1993)
1993CKa H Cai,T Kaden; Helv.Chim.Acta,76,557 (1993)
1993CWa J Cruywagen,R van de Water; Talanta,40,1091 (1993)
1993DPd R Diaz Ara,P Pascual; Indian J.Chem.,32A,903 (1993)
1993DSa R Delgado,Y Sun,R Motekaitis et al; Inorg.Chem.,32,3320 (1993)
1993GJa B Garg,V Jain; J.Indian Chem.Soc.,70,242 (1993)
1993KHa D Khamdo,T Khanlarov,D Gambarov; Koord.Khim.,19,280 (1993)
1993MMa R Ma,A Martell; Inorg.Chim.Acta,209,71 (1993)
1993WLa D Wambeke,W Lippens,G Herman et al; J.Chem.Soc.,Dalton Trans.,2017 (1993)
1993YNa T Yao,S Ni,J Xu; J.Inorg.Chem.(China),9,77 (1993)
1993YTa A Yuchi,A Tanaka,M Hirai,T Ysaui et al; Bull.Chem.Soc.Jpn.,66,3377 (1993)
1992ADa M Amorim,R Delgado,J da Silva; Polyhedron,11,1891 (1992)
1992ANb S Azuma,N Nakasuka,M Tanaka; Bull.Chem.Soc.Jpn.,65,2333 (1992)
1992AZa H Azab; Monatsh.Chem.,123,1107 (1992)
1992BCa H Buschmann,E Cleve,E Schollmeyer; Inorg.Chim.Acta,193,93 (1992)
1992BDa K Byriel,K Dunster,L Gahan et al; Polyhedron,11,1205 (1992)
1992BKf G Boopathy,P Kamalakannan,D Venkappayya; J.Indian Chem.Soc.,69,326 (1992)
1992CDa S Chaves,R Delgado,M Duarte et al; J.Chem.Soc.,Dalton Trans.,2579 (1992)
1992CDd S Chaves,R Delgado,J Da Silva; Talanta,39,249 (1992)
1992CMd F Chyragov,O Mukhamed; Zh.Neorg.Khim.,37,(12)2758 (1992)
1992GAa M Ghandour,H Azab et al; Monatsh.Chem.,123,51 (1992)
1992GAb M Ghandour,H Azab,A Hassan; Monatsh.Chem.,123,853 (1992)
1992GVa J Gibson,O Vaughan; J.Chem.Soc.,Dalton Trans.,1375 (1992)

1992LBa I Lukes,K Bazakas,P Hermann,P Vojtisek; J.Chem.Soc.,Dalton Trans.,939 (1992)
1992MMa R Motekaitis,A Martell; Inorg.Chem.,31,11 (1992)
1992NEa E Neher-Neumann; Acta Chem.Scand.,46,231 (1992)
1992NOa A Nukhin,H Ospanov et al; Zh.Neorg.Khim.,37,(5)1134 (1992)
1992PKa C Paige,W Kornicker,O Hileman; Geochim.Cosmo.Acta,56,1165 (1992)
1992PPb J Podlahova,J Podlaha; Coll.Czech.Chem.Comm.,47,1078 (1992)
1992RRa J Rodriguez Placeres,G Ruiz Cabrera; Coll.Czech.Chem.Comm.,57,1807 (1992)
1992SSc Sahadev,R Sharma et al; Monatsh.Chem.,123,25,883,1099 (1992)
1992WLb D Wambeke,W Lippens,G Herman et al; Polyhedron,11,2989 (1992)
1992ZBa M Zelic,M Branica; Anal.Chim.Acta,262,129,268,275 (1992)
1991ACa M Amorim,S Chaves,R Delgado,J da Silva; J.Chem.Soc.,Dalton Trans.,3065 (1991)
1991BMb M Bruening,D Mitchell et al; Anal.Chem.(USA),21 (1991)
1991BSe A Bond,F Scholz; J.Phys.Chem.,95,7460 (1991)
1991DCa A de Sousa,G Croft et al; Inorg.Chem.,30,3525 (1991)
1991DGa S Deiana,C Gessa,P Piu,R Seeber; J.Chem.Soc.,Dalton Trans.,1237 (1991)
1991DHa K Damu,R Hancock,P Wade et al; J.Chem.Soc.,Dalton Trans.,293 (1991)
1991DLa P Duckworth,S Lincoln,J Lucas; Inorg.Chim.Acta,188,55 (1991)
1991DMa K Damu,H Maumela,R Hancock et al; J.Chem.Soc.,Dalton Trans.,2717 (1991)
1991FGb F Fronczek,R Gandour,T Fyles; Can.J.Chem.,69,12 (1991)
1991GDb B Garg,R Dixit; Bull.Soc.Chim.Fr.,127,14 (1991)
1991GDc B Garg,R Dixit; Bull.Soc.Chim.Fr.,127,14 (1991)
1991GDe B Garg,R Dixit,N Kiran; Ann.Chim.(Rome),81,155 (1991)
1991GFa N Gnonlonfoun,M Filella,G Berthon; J.Inorg.Biochem.,42,207 (1991)
1991HCa W Harris,Y Chen,J Stenback,B Shah; J.Coord.Chem.,23,173 (1991)
1991HLa G Hollingshed,G Lawrance,M Maeder; Polyhedron,10,409 (1991)
1991KCa R Kar,M Chattopadhyaya; J.Indian Chem.Soc.,68,459 (1991)
1991KKa M Kodama,T Koike,A Mahatma,K Kimura; Inorg.Chem.,30,1270 (1991)
1991LHa R Luckay,R Hancock; J.Chem.Soc.,Dalton Trans.,1491 (1991)
1991LSa C Lapp,N Spiess; J.Inorg.Biochem.,42,257 (1991)
1991PMa J Rodriguez Placeres,J Castro Macias; Coll.Czech.Chem.Comm.,56,1200 (1991)
1991PSa H Parham,M Shamsipur; J.Electroanal.Chem.,314,71 (1991)
1991TKa Y Takeda,T Kimura; J.Inclusion Phenom.,11,159 (1991)
1991VRa V Veter,R Romagnoli; Analyst,116,937 (1991)
1991WBa A Wojciechowska,L Bolewski,L Lomazik; Monatsh.Chem.,122,131 (1991)
1991YNb H Yamashita,T Nozaki,Y Fukuda; Bull.Chem.Soc.Jpn.,64,697 (1991)
1990CCa M Cabral,J Costa,R Delgado et al; Polyhedron,9,2847 (1990)
1990CSa G Chernikova,L Shishin,A Khokhlova; Zh.Neorg.Khim.,35,973 (544) (1990)
1990DGb S Deiana,C Gessa,P Piu,R Seeber; J.Inorg.Biochem.,40,301 (1990)
1990DGc R Dixit,B Garg; Bull.Soc.Chim.Fr.,127,1 (1990)
1990DJb N Dalley,W Jiang,K Krakowiak,R Izatt; J.Inclusion Phenom.,8,299 (1990)
1990DKa D Dyrssen,K Kremling; Marine Chem.,30,193 (1990)
1990FTa I Filipovic,M Tkalcec,B Grabaric; Inorg.Chem.,29,1092 (1990)
1990HEa G Hefter; Polyhedron,9,2429 (1990)
1990HNa R Hancock,M Ngwenya,A Evers et al; Inorg.Chem.,29,264 (1990)
1990HWa R Hancock,P Wade,M Ngwenya; Inorg.Chem.,29,1968 (1990)
1990OBa R bin Othman,N Buckman,J Hill; Thermochim.Acta,157,335 (1990)

1990PSa N Padmaja,M Babu et al; Polyhedron,9,2497 (1990)
1990RAb F Rey,J Antelo,F Arce,F Penedo; Polyhedron,9,665 (1990)
1990SAa Sadiq,M; Marine Chem.,31,285 (1990)
1990SEb J-M Sequaris,M Esteban; Electroanalysis,2,35 (1990)
1990SVa Z Sun,P Vanysek; Anal.Chim.Acta,228,241 (1990)
1990TAa Y Takeda; J.Inclusion Phenom.,9,309 (1990)
1990TKa A V Tarelkin, V Kondrat'yev, V Kravtsov; Elektrokhim. 26, 455 (1990)
1990VZa V Vasil'ev,G Zaitseva,N Logacheva; Zh.Neorg.Khim.,35,(11)2858 (1990)
1990WHa P Wade,R Hancock,J Boeyens; J.Chem.Soc.,Dalton Trans.,483 (1990)
1989BFa E Bottari,M Festa,R Jasionowska; J.Coord.Chem.,20,209 (1989)
1989DYa D Dyrssen; Marine Chem.,28,241 (1989)
1989FSb D Ferri,F Salvatore,E Vasca; J.Coord.Chem.,20,11 (1989)
1989GIa T Giordano; Geochim.Cosmo.Acta,53,359 (1989)
1989HAa G Huber,R Alberto et al; J.Chem.Soc.,Chem.Comm.,879 (1989)
1989HBa R Hancock,R Bhavan,P Wade et al; Inorg.Chem.,28,187 (1989)
1989HSa A Hannisdal,K Schroder; J.Electroanal.Chem.,263,23 (1989)
1989LWe H Li,J Wang; Anal.Chim.Acta,226,323 (1989)
1989MMd R Motekaitis,A Martell; Inorg.Chem.,28,3499 (1989)
1989NOc T Nozaki,Y Oka,H Yamashita; Nippon Kagaku Kaishi,4,697 (1989)
1989NSa A Novikov,V Samoilova; Radiokhim.,31,116 (1989)
1989NWa L Nyholm,G Wikmark; Anal.Chim.Acta,223,429 (1989)
1989PBb Y Polykarpov,F Belski et al; Izv.Akad.Nauk(USSR),9,2112 (1989)
1989SCc R Saxena,C Chandel,C Gupta; Indian J.Chem.,28A,625 (1989)
1989SFb D Ferri F Salvatore,E Vesca; Ann.Chim.(Rome),79,1 (1989)
1989SLa M Strasak,J Lucansky,P Novomesky et al; J.Coord.Chem.,19,359 (1989)
1989SMc F Salinas,J Martinez-Vidal; Bull.Soc.Chim.Belg.,98,371 (1989)
1989TKa Y Takeda,R Kohno,Y Kudo,N Fukada; Bull.Chem.Soc.Jpn.,62,999 (1989)
1989TKc Y Takeda,T Kimura,Y Kudo,H Matsuda; Bull.Chem.Soc.Jpn.,62,2885 (1989)
1988BBa J Berggren,O Bortin,S Gobom; Acta Chem.Scand.,A42,685 (1988)
1988BCb J Balman,Christie,J Duffield,D Williams; Inorg.Chim.Acta,151,169 (1988)
1988BEb A Bond,S Ellis,A Hollenkamp; J.Am.Chem.Soc.,110,5293 (1988)
1988BFa E Bottari,M Festa,R Jasionowska; J.Coord.Chem.,17,245 (1988)
1988CCc C Chang,P H-L Chang et al; Inorg.Chem.,27,3786 (1988)
1988FSb D Ferri,F Salvatore; Ann.Chim.(Rome),78,441,497,509 (1988)
1988GAb M Ghandour,N Aboul-Maali; J.Indian Chem.Soc.,65,156 (1988)
1988GMc M Ghandour,H Mansour,M El-Wafa,M Khodary; J.Indian Chem.Soc.,65,713 (1988)
1988HDa R Hancock,S Dobson,A Evers,P Wade et al; J.Am.Chem.Soc.,110,2788 (1988)
1988HPa Hang Taijun,Peng Cizhen; Chem.J.of Chin.Univ.,676 (1988)
1988HSb R Hancock,M Shaikjee,S Dobson et al; Inorg.Chim.Acta,154,229 (1988)
1988KOb S Kalavathi,K Omprakash,M Reddy et al; Indian J.Chem.,27A,822 (1988)
1988LIa S Licht; J.Electrochem.Soc.,135,2971 (1988)
1988MFb M Montemayor,E Fatas; J.Electroanal.Chem.,246,271 (1988)
1988MJa M Meloun,M Javurek,M Bartos; Analyst,113,1357 (1988)
1988NKb T Nozaki,T Kabata,H Yamashita; Nippon Kagaku Kaishi,7,1017 (1988)
1988PBb I Pizeta,M Branica; J.Electroanal.Chem.,250,293 (1988)
1988SBc M Shoonen,H Barnes; Geochim.Cosmo.Acta,52,649 (1988)
1988STa M Springer,R Taylor; Inorg.Chem.,27,165 (1988)
1987AZa H Azab; Bull.Soc.Chim.Fr.,I,265 (1987)
1987BFa E Bottari,M Festa; Ann.Chim.(Rome),77,541 (1987)

1987BMa R Beaudoin,H Menard; Can.J.Chem.,65,528 (1987)
1987BSb P Brown,R Sylva; J.Chem.Res.(S),4 (1987)
1987CBd L Chen,M Bos,P Grootenhuis; Anal.Chim.Acta,201,117 (1987)
1987CRb D Crow; Electrochim.Acta,32,63 (1987)
1987CSb C Chang,V Sekhar,B Garg; Inorg.Chim.Acta,135,11 (1987)
1987DDb R Delgado,J da Silva et al; Polyhedron,6,29 (1987)
1987FGb D Ferri,I Grenthe,S Hietanen et al; Acta Chem.Scand.,A41,349 (1987)
1987GFa Guo Dewei,Fan Chunmei,Chen Jingtang +; Chem.J.of Chin.Univ.,873 (1987)
1987HDa R Hancock,S Dobson,J Boeyens; Inorg.Chim.Acta,133,221 (1987)
1987HEa R Hancock,A Evers,M Ngwenya,P Wade; J.Chem.Soc.,Chem.Comm.,1129 (1987)
1987HLa P Hakkinen,H Lajunen; Finn.Chem.Lett.,14,7 (1987)
1987HNa R Hancock,M Ngwenya; J.Chem.Soc.,Dalton Trans.,2911 (1987)
1987IKa H Ivanova,B Karadakov,N Ivanov; Zh.Neorg.Khim.,32,611(343) (1987)
1987KSd A Khokhlova,L Spitsyn et al; Koord.Khim.,13(1)63 (1987)
1987PBa S Pisareva,F Belski et al; Izv.Akad.Nauk(USSR),2,413 (1987)
1987PFb S Peiffer,T Frevert; Analyst,112,951 (1987)
1987RRb G Ruiz Cabrera,J Rodriguez Placeres; An.Quim.,83,251 (1987)
1987SHa B Spiess,E Harraka,D Wencker et al; Polyhedron,6,1247 (1987)
1987TGb R Tripathi,R Ghose,A Ghose; J.Indian Chem.Soc.,64,519 (1987)
1987USa N Ulakhovich,L Shaidarova,G Boudnikov; Zh.Neorg.Khim.,32,679(381) (1987)
1987VIa M Vicedomini; Ann.Chim.(Rome),77,789 (1987)
1987ZLa Zhang Feng,Liu Qitao; Chem.J.of Chin.Univ.,306 (1987)
1986ABb F Arce,C Blanco,J Casado; Talanta,33,1031 (1986)
1986BUe H Buschmann; Thermochim.Acta,107,219 (1986)
1986COb C Chang,V Ochaya; Inorg.Chem.,25,355 (1986)
1986CSa M Correia dos Santos,M Simoes Concalves; J.Electroanal.Chem.,208,137 (1986)
1986DSa K Damu,M Shaikjee,J Michael,R Hancock et; Inorg.Chem.,25,3879 (1986)
1986GVa J Garg,P Verma,D Jain; Chemica Scripta,26,599 (1986)
1986HBc R Hancock,R Bhavan,M Shaikjee et al; Inorg.Chim.Acta,112,L23 (1986)
1986HBe R Hancock,R Bhavan,C Wagner,G Hosken; S.Afr.J.Chem.,39,238 (1986)
1986HSd K Hayashi,Y Sasaki,S Tagashira; Bull.Chem.Soc.Jpn.,59,1255 (1986)
1986ICa R Izatt,G Clark,J Lamb,J Christensen; Thermochim.Acta,97,115 (1986)
1986KUc G Kura; Polyhedron,5,2097 (1986)
1986MGc A Matilla-Hernandez,S Gonzalez-Garcia; An.Quim.,82,22 (1986)
1986MMb V Maistrenko,Y Mourinov et al; Zh.Neorg.Khim.,31,417(236) (1986)
1986RGa P Rao,S Gupta,T Narasaraju; Can.J.Chem.,64,484 (1986)
1986RRd J Rodriguez-Placeres,G Ruiz-Cabrera; An.Quim.,82,245 (1986)
1986RVa A Romero,J Vera,Y Martinez Ortiz; An.Quim.,82,355 (1986)
1986SRb S Singh,B Rani,K Yadava; Chemica Scripta,26,363 (1986)
1986SZa Shi Shenghua,Zhu Heli; Anal.Chem.(China),817 (1986)
1986TSa V Thom,S Shaikjee,R Hancock; Inorg.Chem.,25,2992 (1986)
1986UBa N Ulakhovich,G Budnikov et al; Zh.Neorg.Khim.,31,111(62) (1986)
1985ABa A Mota,J Buffle et al; Anal.Chim.Acta,172,13 (1985)
1985BFa M Brighli,P Fux,J Lagrange,P Lagrange; Inorg.Chem.,24,80 (1985)
1985BMc R Byrne,F Millero; Geochim.Cosmo.Acta,49,307 (1985)
1985BPa R Boss,A Popov; Inorg.Chem.,24,3660 (1985)
1985BUa H-J Buschmann; Inorg.Chim.Acta,98,43 (1985)
1985CSb P Corbaux,B Spiess,F Arnaud,M Schwing; Polyhedron,4,1471 (1985)
1985DAb A Deme,J Ashaks et al; Chem.Zvesti,39,649 (1985)

1985DVa R Diez-Caballero et al; Bull.Soc.Chim.Fr.,II,688 (1985)
1985DVb R Diez-Caballero,J Valentin,A Garcia; J.Electroanal.Chem.,196,43 (1985)
1985DYa D Dyrssen; Marine Chem.,15,285 (1985)
1985FWa M Filella,D Williams; Inorg.Chim.Acta,106,49 (1985)
1985GEa M Ghandour,A El-Samahy,Z Komy; J.Indian Chem.Soc.,62,198 (1985)
1985HSc M Hughes,G Smith,D Williams; Inorg.Chim.Acta,107,247 (1985)
1985KSd R Kulshahrestha,M Singh; Indian J.Chem.,24A,852 (1985)
1985KWa K Klaus-Kurasiak,W Wojciak; Pol.J.Chem.,59,851 (1985)
1985LAa C Luca,H Azab,I Tanase; Anal.Lett.,18,449 (1985)
1985LBc S Lubkeova,P Balgavy et al; Chem.Zvesti,39,317 (1985)
1985MMa F Mulla,F Marsicano,B Nakani et al; Inorg.Chem.,24,3076 (1985)
1985NAa A Napoli; J.Coord.Chem.,14,127 (1985)
1985NSb F Arnaud-Neu,M Sanchez et al; Helv.Chim.Acta,68,456 (1985)
1985NSc F Arnaud-Neu,M Sanchez et al; Helv.Chim.Acta,68,840 (1985)
1985RRd G Rinz-Cabrera,Rodriguez-Placeres et al; Polyhedron,4,221 (1985)
1985RRg J Rodriguez Placeres,G Ruiz Cabrera; J.Electroanal.Chem.,194,173 (1985)
1985SBa Shi Shenghua,Bai Yuwei,Wang Junan et al; Anal.Chem.(China),646 (1985)
1985SBb J Santaballa,C Blanco,F Arce et al; Talanta,32,931 (1985)
1985SLa S Sullivan,J-M Lehn; Helv.Chim.Acta,68,831 (1985)
1985SRa S Singh,B Radna Pani,M Vyas,K Yadava; Pol.J.Chem.,59,1021 (1985)
1985SSe M Shirhare,M Singh; Polyhedron,4,201,207 (1985)
1985TGa R Tripathi,R Ghose,A Ghose; Indian J.Chem.,24A,565 (1985)
1985THb V Thoem,G Hosken,R Hancock; Inorg.Chem.,24,3378 (1985)
1985TZa Tai Zihou,Zhu Chunsheng; Huaxue Tongbao(Chem.China),4-16 (1985)
1985WTa Z Warnke,C Trojanowska,A Liwo; J.Coord.Chem.,14,31 (1985)
1985WWa M Willes,D Williams; Inorg.Chim.Acta,106,L21 (1985)
1984BEa C van den Berg; Geochim.Cosmo.Acta,48,2613 (1984)
1984BMb R Byrne,W Miller; Am.J.Sci.,284,79 (1984)
1984FCa C Fouillac,A Criaud; Geochem.J.,18,297 (1984)
1984GMc M Ghandour,H Mansour,M Khodary; J.Indian Chem.Soc.,61,862 (1984)
1984HCa G Hefter,C Chan,N Tioh; Anal.Chem.(USA),56,749 (1984)
1984HNa R Hancock,B Nakani; J.Coord.Chem.,13,309 (1984)
1984KCb S Krishna,K Chandra,M Singh; J.Indian Chem.Soc.,61,263 (1984)
1984KMa M Kabachnik,T Medved et al; Izv.Akad.Nauk(USSR),4,835 (1984)
1984KMb M Kabachnik,T Medved et al; Izv.Akad.Nauk(USSR),4,844 (1984)
1984LSa Liu Qitao,Song Kuiyuan,Song Ximing; Acta Chimica Sinica,1145 (1984)
1984LSb J Labuda,M Skatulokova,M Nemeth, Gergely; Chem.Zvesti,38,597 (1984)
1984LSc J Lozar,L Schuffenecker,G Cudey; Thermochim.Acta,79,171 (1984)
1984MMc C Madeyski,J Michael,R Hancock; Inorg.Chem.,23,1487 (1984)
1984MMg R Miotekaitis,A Martell; J.Coord.Chem.,13,265 (1984)
1984MTa C Melios,V Torres et al; Analyst,109,385 (1984)
1984MWb P May,M Willes,D Williams,A Creighton; Agents Actions,15,448 (1984)
1984PAa P Paoletti; Pure & Appl.Chem.,56,491 (1984)
1984PRb R Parkash,S Rehani,R Bala; J.Indian Chem.Soc.,61,930 (1984)
1984RBe J Rodriguez Placeres,M Barrera,A Arevalo; J.Electroanal.Chem.,169,69 (1984)
1984RPa G Ruiz-Cabrera,M Perez-Sanchez,A Arevalo; An.Quim.,80,54 (1984)
1984SDb R Saxena,S Dhawan; J.Prakt.Chem.,326,845 (1984)
1984SEa T Seward; Geochim.Cosmo.Acta,48,121 (1984)
1984SPa R Saxena,R Parikhaw,K Gupta; Monatsh.Chem.,115,141 (1984)

1984UBa N Ulakhovich,H Budnikov et al; Talanta,31,727 (1984)
1984UHa A Uhler,G Helz; Geochim.Cosmo.Acta,48,1155 (1984)
1984YSa H Yadava,S Singh,P Prasad et al; Bull.Soc.Chim.Fr.,I,314 (1984)
1983BPa M Barrera,J Placeres,J Sanchez; An.Quim.,79,145 (1983)
1983CPb E Collange,M Paris; Bull.Soc.Chim.Fr.,I,44 (1983)
1983CPd V Chitale,K Pitre; J.Electrochem.Soc.India,32,298 (1983)
1983CPe V Chitale,K Pitre; Can.J.Chem.,61,1941 (1983)
1983CRb C Chang,M Rowland; Inorg.Chem.,22,3867 (1983)
1983FSa J Felcman,J da Silva; Talanta,30,565 (1983)
1983GHa M Ghandour,A Hamnza,M Al-Najjar; J.Indian Chem.Soc.,60,933 (1983)
1983GJa J Garg,D Jain,P Verma; J.Electrochem.Soc.India,32,187 (1983)
1983GJc J Garg,D Jain,P Verma; Acta Chim.Hung.,114,125 (1983)
1983GVa J Garg,P Verma,D Jain; Proc.Indian Acad.Sci.,92,77 (1983)
1983HHb P Harrison,M Healy,A Steel; J.Chem.Soc.,Dalton Trans.,1845 (1983)
1983MMa T Matsuo,Y Masuda,E Sekido; Bull.Chem.Soc.Jpn.,56,2165 (1983)
1983NGb J Niclos-Gutierrez,S Gonzalez-Garcia; Ann.Quim.,79,525 (1983)
1983NRa T Nakashima,D Rabenstein; J.Magn.Reson.,51,223 (1983)
1983SDb R Saxena,S Dhawan; J.Indian Chem.Soc.,60,733 (1983)
1983SFa H Sigel,B Fischer,E Farkas; Inorg.Chem.,22,925 (1983)
1983SGf R Saxena,A Gupta; Chemica Scripta,22,66 (1983)
1983SSd M Shivare,M Singh; Proc.Indian Acad.Sci.,92,91 (1983)
1983SSf R Saxena,M Sharma; J.Indian Chem.Soc.,60,901 (1983)
1983TVa D Turner,I Vukaden; Marine Chem.,14,133 (1983)
1983UBa N Ulakhovich,G Budnikov et al; Zh.Neorg.Khim.,28,2838(1611) (1983)
1983WWa M Willes,D Williams; Inorg.Chim.Acta,80,L35 (1983)
1983YYa Z Yang,C Yang,Z Wu; Gaodeng Xuexiao Huaxue Xuebao,4,347 (1983)
1982ABc G Anderegg,P Blauenstein; Helv.Chim.Acta,65,162 & 913 (1982)
1982ANa G Anderegg; Pure & Appl.Chem.,54,2693 (1982)
1982BJa E Bottari,R Jasionowska; Ann.Chim.(Rome),72,333 (1982)
1982BMb Y Bizri,M Cromer-Morin,J Scharff; J.Chem.Res.(S),7,192 (1982)
1982BMc H Bendiab,J Meullemeestre,M-J Schwing; J.Chem.Res.(M),82,2718 (1982)
1982BSa H Bilinski,P Schindler; Geochim.Cosmo.Acta,46,921 (1982)
1982BYa R Byrne,R Young,; J.Solution Chem.,11,127 (1982)
1982CPb V Chitale,K Pitre; J.Electrochem.Soc.India,31,133 (1982)
1982CSc M Cromer-Morin,J Scharff,R Martin; Analusis,10,92 (1982)
1982GGa R Gupta,H Gaur; J.Chem.Soc.,Faraday Trans.I,78,7 (1982)
1982GSa K Gupta,K Sharma; Analyst,107,1512 (1982)
1982JAa A Jones,D Aikens; Polyhedron,1,169 (1982)
1982JHa G Jackson,R Hancock; Polyhedron,1,836 (1982)
1982KBb Y Kozlov,V Babich,A Kapustnikov; Zh.Neorg.Khim.,27,147(83) (1982)
1982KNc M Kumari,L Narain; J.Coord.Chem.,12,49 (1982)
1982KSa S Kusakabe,T Sekine; Bull.Chem.Soc.Jpn.,55,1965 (1982)
1982MDa J Massaux,J Desseux; J.Am.Chem.Soc.,104,2967 (1982)
1982MYb Y Moriguchi,T Yoshimatsu et al; Bunseki Kagaku,31,318 (1982)
1982NAb A Napoli; Ann.Chim.(Rome),72,575 (1982)
1982NSb F Arnaud-Neu,B Spiess,M Schwing-Weill; J.Am.Chem.Soc.,104,5641 (1982)
1982PPc J Podlahova,J Podlaha; Coll.Czech.Chem.Comm.,47,1078 (1982)
1982ROa R Rohl; Anal.Chim.Acta,135,99 (1982)
1982SAa Y Sasaki; Bunseki Kagaku,31,E107 (1982)
1982SSc V Skopenko,V Samoilenko,S Garbous; Zh.Neorg.Khim.,27,665(373) (1982)

1982TGa M Tkalcec,S Grabaric et al; Anal.Chim.Acta,143,255 (1982)
1982TSb S Takeshima,H Sakurai; Inorg.Chim.Acta,66,119 (1982)
1982WIa Wu Xing,F Ingman; Talanta,29,707 (1982)
1981AAa J Antelo,F Arce,J Casado et al; Ann.Chim.(Rome),71,209 (1981)
1981ANb G Anderegg; J.Coord.Chem.,11,171 (1981)
1981ASb T Ait-Hamouda,M Schwing-Weill; Analusis,9,93 (1981)
1981BWa R Byrne,R Young,W Miller; J.Solution Chem.,10,243 (1981)
1981IOa S Ishiguro,H Ohtaki; Bull.Chem.Soc.Jpn.,54,335 (1981)
1981KKd V Kondratyev,V Kravtsov et al; Elektrokhim.,17,248 (1981)
1981KMa Y Khayat,M Cromer-Morin,J Scharff; J.Inorg.Nucl.Chem.,43,627 (1981)
1981KMb S Kulstad,L Malmsten; J.Inorg.Nucl.Chem.,43,1299 (1981)
1981KOa K Kogure,M Okamoto,H Kakihana et al; J.Inorg.Nucl.Chem.,43,1561 (1981)
1981KTa F Kah,H Takeshita,S Sukimoto et al; J.Inorg.Nucl.Chem.,43,3013 (1981)
1981MFa T Matusinovic,I Filipovic; Talanta,28,199 (1981)
1981MOa M Maeda,M Ohnishi,G Nakagawa; J.Inorg.Nucl.Chem.,43,107 (1981)
1981MTa M Maeda,Y Tanaka,G Nakagawa; J.Inorg.Nucl.Chem.,43,1049 (1981)
1981MTb M Magaramov,O Tataiev; Zh.Neorg.Khim.,26,3217(1724) (1981)
1981MUa S Murakami; J.Inorg.Nucl.Chem.,43,335 (1981)
1981NAd A Napoli; Monatsh.Chem.,112,547 (1981)
1981NSc V Novak,M Svicekova et al; Chem.Zvesti,35,481 (1981)
1981PBb O Prakash,S Bhasin,D Jain; J.Electrochem.Soc.India,30,152 (1981)
1981PPa A Prasad,B Prasad; J.Indian Chem.Soc.,58,259 (1981)
1981RBa D Rabenstein,S Backs,A Isab; J.Am.Chem.Soc.,103,2836 (1981)
1981RUa M Ruedas; J.Inorg.Nucl.Chem.,43,606 (1981)
1981SBd J-P Scharff,Y Bizri,M Cromer-Morin; Compt.Rend.,292,Ser.II,779 (1981)
1981SBf R Saxena,S Bansal; J.Electrochem.Soc.India,30,332 (1981)
1981SFa H Stetter,W Frank,R Mertens; Tetrahedron,37,767 (1981)
1981SMb B Spiess,D Martin-Faber et al; Inorg.Chim.Acta,54,L91 (1981)
1981TCa J Toman,R Corn et al; Anal.Chim.Acta,123,187 (1981)
1980AAa J Antelo,F Arce,J Casado,A Varela; Ann.Chim.(Rome),70,267 (1980)
1980BBc I Benedikovic,P Balgavy et al; Chem.Zvesti,34,78 (1980)
1980BVa S Banerjee,C Vaz; Indian J.Chem.,19A,387 (1980)
1980KIa T Kawai,S Ishiguro,H Ohtaki; Bull.Chem.Soc.Jpn.,53,2221 (1980)
1980KKb M Kodama,E Kimura,S Yamaguchi; J.Chem.Soc.,Dalton Trans.,2536 (1980)
1980LBb M Lovric,M Branica; Croat.Chem.Acta,53,503 (1980)
1980MCa J Maslowska,K Cedzynska; Pol.J.Chem.,54,641 (1980)
1980MCb L Marzilli,B D-Castro et al; J.Am.Chem.Soc.,102,916 (1980)
1980MKb R Medancic,I Kruhak,B Mayer et al; Croat.Chem.Acta,53,419 (1980)
1980MKc V Michaylova,N Kuleva; Talanta,27,63 (1980)
1980MOa S Murakami,K Ogura,T Yoshino; Bull.Chem.Soc.Jpn.,53,2228 (1980)
1980MRc J Majer,R Riecanska,Z Pikulikova; Chem.Zvesti,34,93 (1980)
1980MVa J Majer,T van Quy,I Valaskova; Chem.Zvesti,34,637 (1980)
1980NWa G Nakagawa,H Wada,T Sako; Bull.Chem.Soc.Jpn.,53,1303 (1980)
1980PPc A Prasad,B Prasad; J.Indian Chem.Soc.,57,155 (1980)
1980SAa B Spiess,F Arnaud-Neu et al; Helv.Chim.Acta,63,2287 (1980)
1980SAb K Scheller,T Abel,P Polanyi,H Sigel; Eur.J.Biochem.,107,455 (1980)
1980SBa R Sylva,P Brown; J.Chem.Soc.,Dalton Trans.,1577 (1980)
1980SGi N Sachan,C Gupta; Talanta,27,457 (1980)
1980SKa R Sandhu,R Kumar; Ann.Chim.(Rome),70,387 (1980)
1980SKb R Sandhu,R Kalia; Ann.Chim.(Rome),70,625 (1980)

1980SKd R Saxena,G Khandelwal; J.Indian Chem.Soc.,57,116 (1980)
1980SRa L Sipos,B Raspor, H Nurnberg,R Pytkowicz; Marine Chem.,9,37 (1980)
1980SSa H Sigel,K Scheller et al; J.Chem.Soc.,Dalton Trans.,1022 (1980)
1980SSg S Shah,K Suyan,C Gupta; J.Electrochem.Soc.India,29,170 (1980)
1980TGb M Tkalcec,S GrabaricI Filipovic,I Piljac; Anal.Chim.Acta,122,395 (1980)
1980YVa R Yadav,P Verma,K Zutshi; J.Electrochem.Soc.India,29,145 (1980)
1979ACa A Alberts,D Cram; J.Am.Chem.Soc.,101,3545 (1979)
1979AOa S Ajayi,A Olin et al; Acta Chem.Scand.,A33,93 (1979)
1979ASb F Arnaud-Neu,M Schwing-Weill,R Louis; Inorg.Chem.,18,2956 (1979)
1979BKa S Brown,B Kowalski; Anal.Chem.(USA),51,2133 (1979)
1979BLb J Bessiere,M Lejaille; Anal.Lett.,12,753 (1979)
1979DDb J Degorre,A Delannoy,J Hennion,J Nicole; Bull.Soc.Chim.Fr.,I-471,477 (1979)
1979FEa M Fedorenko; Zh.Neorg.Khim.,24,1731(959) (1979)
1979FEb A Fedorenko; Zh.Neorg.Khim.,24,1979 (1979)
1979FFa V Fedorov,A Fedorova et al; Zh.Neorg.Khim.,24,146(80) (1979)
1979FHa B Fischer,U Haring,R Tribolet,H Sigel; Eur.J.Biochem.,94,523 (1979)
1979GBb T Giordano,H Barnes; Econ.Geol.,74,1637 (1979)
1979GBf P Govil,S Banerji; Indian J.Chem.,17A,624 (1979)
1979GMa R Gualtieri,W McBryde et al; Can.J.Chem.,57,113 (1979)
1979JPb T Janjic,L Pfendt,V Popov; J.Inorg.Nucl.Chem.,41,63 (1979)
1979KFa I Kruhak,I Filipovic; Croat.Chem.Acta,52,207 (1979)
1979KMa Y Khayat,M Cromer-Morin,J Scharff; J.Inorg.Nucl.Chem.,41,1496 (1979)
1979LPa S Laurie,D Prime,B Sarkar; Can.J.Chem.,57,1411 (1979)
1979MBd J Majer,P Butvin et al; Chem.Zvesti,33,742 (1979)
1979MNa M Miyazaki,S Nishimura,A Yoshida; Chem.Pharm.Bull.,27,532 (1979)
1979MPd M Melloun,J Pancl; Coll.Czech.Chem.Comm.,44,2032 (1979)
1979MPe W McBryde,K Powell; Can.J.Chem.,57,1785 (1979)
1979MTa M Maeda,Y Tanaka,G Nakagawa; J.Inorg.Nucl.Chem.,41,705 (1979)
1979NSa T Nozaki,M Sakamoto et al; Nippon Kagaku Kaishi,891 (1979)
1979OSb M Orama et al; Finn.Chem.Lett.182 (1979)
1979PBa J Poldoski,T Bydalek; J.Inorg.Nucl.Chem.,41,205 (1979)
1979POa J Podlahova; Coll.Czech.Chem.Comm.,44,2460 (1979)
1979SGc N Sachan,C Gupta; Indian J.Chem.,18A,83 (1979)
1979SGe N Sachan,C Gupta; Indian J.Chem.,18A,82 (1979)
1979SPd H Stunzi,D Perrin,T Teitei et al; Australian J.Chem.,32,21 (1979)
1979YMb T Yoshino,S Murakami et al; Talanta,26,479 (1979)
1979ZMa I Zsigrai,M Micovic,I Gal; Croat.Chem.Acta,52,321 (1979)
1978ASb F Arnaud-Neu,M Schwing-Weill; Inorg.Nucl.Chem.Lett.,14,367 (1978)
1978BEa C Riolo et al; Ann.Chim.(Rome),68,651 (1978)
1978BPc S Bhasin,O Prakash; J.Indian Chem.Soc.,55,1307 (1978)
1978BSb E Bottari,C Severini; J.Coord.Chem.,8,69 (1978)
1978CSa F Capitan,F Salinas,L Capitan-Vallvey; Talanta,25,59 (1978)
1978CVa F Coccioli,M Vicedomini; J.Inorg.Nucl.Chem.,40,2106 (1978)
1978CVb F Coccioli,M Vicedomini; J.Inorg.Nucl.Chem.,40,2103 (1978)
1978EOa L-G Ekstrom,A Olin; Chemica Scripta,13,10 (1978)
1978FDa I Filipovic,B B-Dragutinovic et al; Thermochim.Acta,27,151 (1978)
1978FDb V Fedorov,V Demina,V Myronov; Zh.Neorg.Khim.,23,50(27) (1978)
1978GFc N Golovnev,V Fedorov; Zh.Neorg.Khim.,23,1401(771) (1978)
1978HAa I Haq; J.Inorg.Nucl.Chem.,40,1182 (1978)

1978KCd Y Khayat,M Cromer-Morin,J-P Scharff; Compt.Rend.,287C,265 (1978)
1978KIb B Karadakov,H Ivanova; Koord.Khim.,4,1365 (1978)
1978KJb R Kapoor,J Jailwal,J Kishan; J.Inorg.Nucl.Chem.,40,155 (1978)
1978KKb M Kodama,E Kimura; J.Chem.Soc.,Dalton Trans.,1081 (1978)
1978KKe M Kodama,E Kimura; Inorg.Chem.,17,2446 (1978)
1978KLb Z Kleckova,M Langova,J Havel; Coll.Czech.Chem.Comm.,43,3163 (1978)
1978KUa B Kuznik; Pol.J.Chem.,52,3 (1978)
1978LMa J Lehn,F Montavon; Helv.Chim.Acta,61,67 (1978)
1978MEa E Millar,C Evans,D Rabenstein; Can.J.Chem.,56,3104 (1978)
1978MGb P Mathur,D Goel,R Singh; Monatsh.Chem.,109,839 (1978)
1978MGe P Mathur,D Goel,R Singh; J.Indian Chem.Soc.,55,879 (1978)
1978MJa W Mitchell,M Jones; J.Inorg.Nucl.Chem.,40,1957 (1978)
1978MMg B Mayer,R Medancic,B Grabaric et al; Croat.Chem.Acta,51,151 (1978)
1978NLb V Novak,J Lucansky,M Svicekova,J Majer; Chem.Zvesti,32,19 (1978)
1978NSa T Nozaki,M Sakamoto,K Goto,N Higake; Nippon Kagaku Kaishi,976 (1978)
1978OSa A Olin,P Svanstrom; Acta Chem.Scand.,A32,435 (1978)
1978PBa S Poddar,S Bhattacharya et al; Indian J.Chem.,16A,367 (1978)
1978QCa F Quentel,J Cabon et al; Anal.Chim.Acta,96,133 (1978)
1978SPa H Sigel,B Prijs,D McCormick; J.Inorg.Nucl.Chem.,40,1678 (1978)
1978SSf M Suchanek,L Sucha; Coll.Czech.Chem.Comm.,43,1393 (1978)
1977AHc G Anderegg,E Hubmann,N Podder et al; Helv.Chim.Acta,60,123 (1977)
1977ASc F Arnaud-Neu,B Spiess et al; Helv.Chim.Acta,60,2633 (1977)
1977ASg F Arnaud-Neu,M Schwing-Weill; Inorg.Nucl.Chem.Lett.,13,17 (1977)
1977BCa S Baghel,K Choudhary,J Gaur; Bull.Chem.Soc.Jpn.,50,1486 (1977)
1977BGc J Buffle,F Greter,W Haerdl; Anal.Chem.(USA),49,216 (1977)
1977BLb C Birraux,J Landry,W Haerdi; Anal.Chim.Acta,93,281 (1977)
1977BLc C Birraux,J-C Landry,W Haerdi; Anal.Chim.Acta,90,51 (1977)
1977BOa E Bottari; Ann.Chim.(Rome),67,329 (1977)
1977BOb E Bottari; Ann.Chim.(Rome),67,513 (1977)
1977CCa E Chao,K Cheng; Talanta,24,247 (1977)
1977EOa L Ekstrom,A Olin; Acta Chem.Scand.,A31,838 (1977)
1977HMb R Hancock,G McDougall; J.Coord.Chem.,6,163 (1977)
1977HMc D Horner,J Mailen, H Bigelow; J.Inorg.Nucl.Chem.,39,1645 (1977)
1977HOa A Hamman,A Olin et al; Acta Chem.Scand.,A31,384 (1977)
1977HOb H Hedstrom,A Olin,P.Svanstrom,E Aslin; J.Inorg.Nucl.Chem.,39,1191 (1977)
1977KKa M Kodama,E Kimura; J.Chem.Soc.,Dalton Trans.,2269 (1977)
1977KWa E Kulig,R Wojtas,M Czakis-Sulikowska; Rocz.Chem.51,1235 (1977)
1977LAa R Louis,F Arnaud-Neu et al; Inorg.Nucl.Chem.Lett.,13,31 (1977)
1977LSc J Lehn,J Simon; Helv.Chim.Acta,60,141 (1977)
1977MCa C Makridou,M Cromer-Morin,J-P Scharff; Bull.Soc.Chim.Fr.,59 (1977)
1977OMa N Oyama,H Matsuda,H Ohtaki; Bull.Chem.Soc.Jpn.,50,406 (1977)
1977PIb N Paulic,N Ivicic,K Jakopcic et al; J.Inorg.Nucl.Chem.,39,2094 (1977)
1977PSb L Pettit,J Swash; J.Chem.Soc.,Dalton Trans.,697 (1977)
1977SBa T Sayer,S Backs,C Evans,E Millar; Can.J.Chem.,55,3255 (1977)
1977STc H Sakurai,S Takeshima; Transition Met.Chem.,2,103 (1977)
1977SYa H Sato,Y Yokoyama,K Momoki; Anal.Chim.Acta,94,217 (1977)
1977VLa P Vlek,W Lindsay; Soil Sci.Soc.Am.J.,41,42 (1977)
1976BHa H Bilinski,R Huston et al; Anal.Chim.Acta,84,157 (1976)
1976CWa A Corrie,M Walker,D Williams; J.Chem.Soc.,Dalton Trans.,1012 (1976)
1976CWb A Corrie,D Williams; J.Chem.Soc.,Dalton Trans.,1068 (1976)

1976DFa V Demina,V Fedorov; Zh.Fiz.Khim.,50,689 (1976)
1976DFb E Dazzi,M Falqui; Gazz.Chim.Ital.,106,1095 (1976)
1976FFa V Fedorov,A Fedorova,G Nifanteva; Zh.Obshch.Khim.,46,900 (1976)
1976FSa V Fedorov,L Shishin; Zh.Fiz.Khim.,50,356 (1976)
1976ITa R Izatt,R Terry,D Nelson et al; J.Am.Chem.Soc.,98,7626 (1976)
1976ITb R Izatt,R Terry,B Haymore et al; J.Am.Chem.Soc.,98,7620 (1976)
1976KGa I Kruhak,B Grabaric,I Filipovic et al; Croat.Chem.Acta,48,119 (1976)
1976KIa B Karadakov,C Ivanova; Zh.Neorg.Khim.,21,106(56) (1976)
1976KKf M Kodama,E Kimura; Bull.Chem.Soc.Jpn.,49,2465 (1976)
1976KNa B Karadakov,P Nenova et al; J.Inorg.Nucl.Chem.,38,1033 (1976)
1976LEb Y-H Lee; Acta Chem.Scand.,A30,593 (1976)
1976NCa A Napoli,P Cignini; J.Inorg.Nucl.Chem.,38,2013 (1976)
1976NKa V Novak,M Kotoucek,J Lukansky,J Majer; Chem.Zvesti,21,687 (1976)
1976OSb N Oyama,T Shirato,H Matsuda,H Ohtaki; Bull.Chem.Soc.Jpn.,49,3047 (1976)
1976PSb L Pettit,J Swash; J.Chem.Soc.,Dalton Trans.,588 (1976)
1976SFb H Stetter,W Frank; Angew.Chem.,15,686 (1976)
1976SSd S Sandhu,R Sandhu,J Kumaria; Indian J.Chem.,14A,366 (1976)
1975ANa G Anderegg; Helv.Chim.Acta,58,1218 (1975)
1975ASb F Arnaud-Neu,M Schwing-Weill; Inorg.Nucl.Chem.Lett.,11,655 (1975)
1975ASc F Arnaud-Neu,M Schwing-Weill; Inorg.Nucl.Chem.Lett.,11,131 (1975)
1975BMb P Brignac,C Mo; Anal.Chem.(USA),47,1465 (1975)
1975CMa A Corrie,G Makar,D Williams; J.Chem.Soc.,Dalton Trans.105 (1975)
1975CVa F Coccioli,M Vicedomini; Ann.Chim.(Rome),65,81 (1975)
1975EAa P Ernst H Allen,K Mancy; Water Research,9,969 (1975)
1975FFc V Fedorov,A Fedorova et al; Koord.Khim.,1,1378 (1975)
1975FGa V Fedorov,T Grigor,V Mironov; Zh.Neorg.Khim.,20,3244(1792) (1975)
1975HTa H Hama,S Takamoto; Nippon Kagaku Kaishi,7,1182 (1975)
1975JTa R Jellish,L Thompson; J.Coord.Chem.,4,199 (1975)
1975KKd R Kapoor,J Kishan; Indian J.Chem.,13,1078 (1975)
1975LPa D Laing,L Pettit; J.Chem.Soc.,Dalton Trans.2297 (1975)
1975LSc J Lehn,J Sauvage; J.Am.Chem.Soc.,97,6700 (1975)
1975MJc A Maheshwari,D Jain,J Gaur; Monatsh.Chem.,106,1033 (1975)
1975OSa A Olin,P Svanstrom; Acta Chem.Scand.,A29,849 (1975)
1975POa J Podlahova; Collec.Czech.Chem.Commun.,40,3306 (1975)
1975SAe N Samsonova,T Adler et al; Koord.Khim.,1,1691 (1975)
1975SNa E Shchori,N Nae,J Jagur-Grodzinski; J.Chem.Soc.,Dalton Trans.2381 (1975)
1975TKa A Tugarenov,I Khodakovsky et al; Geokhim.,9,1345 (1975)
1974BCa A Barker,A Clarke; J.Inorg.Nucl.Chem.,36,921 (1974)
1974BEc N Bertazzi; Z.Anorg.Allg.Chem.,410,316 (1974)
1974BHa H D-Brabander,G Herman et al; Thermochim.Acta,10,385 (1974)
1974BNb F Bates,Y Nee; J.Electrochem.Soc.,121,79 (1974)
1974BTa H de Brabander,J Tombeux et al; J.Coord.Chem.,4,87 (1974)
1974CGa D Chaturvedi,C Gupta; J.Inorg.Nucl.Chem.,36,2155 (1974)
1974CVb F Coccioli,M Vicedomini; Ann.Chim.(Rome),64,513 (1974)
1974DZc V Danilov,V Zaitsev,A Ravdel; Zh.Prikl.Khim.,47,1930(E:1989) (1974)
1974FFa V Fedorov,A Fedorova et al; Zh.Neorg.Khim.,19,990(538) (1974)
1974FGd Y Fridman,S Gorkhov,T Fokina; Zh.Neorg.Khim.,19,2081(E:1140) (1974)
1974GSa B Grgas-Kuznar,V Simeon,O Weber; J.Inorg.Nucl.Chem.,36,2151 (1974)
1974JBa M Jones,A Banks,C Brown; J.Inorg.Nucl.Chem.,36,1833 (1974)
1974KHb J Kollmann,E Hoyer; J.Prakt.Chem.,316,119 (1974)

1974KNc M Kodama,K Namekawa,T Horiuchi; Bull.Chem.Soc.Jpn.,47,2011 (1974)
1974KOc M Kodama; Bull.Chem.Soc.Jpn.,47,1547 (1974)
1974KOd M Komatsu; Bull.Chem.Soc.Jpn.,47,1636 (1974)
1974MId M Mihailov; J.Inorg.Nucl.Chem.,36,107 (1974)
1974MMd M Mihailov,V Mihailova,V Khalkin; J.Inorg.Nucl.Chem.,36,115 (1974)
1974NBa K Nag,P Banerjee; J.Inorg.Nucl.Chem.,36,2145 (1974)
1974NLa V Novak,J Lukansky,M Svicekova,J Majer; Chem.Zvesti,28,324 (1974)
1974RGa P Rawat,C Gupta; Indian J.Chem.,12,174 (1974)
1974RKa J Ringen,R Kirby; J.Inorg.Nucl.Chem.,36,199 (1974)
1974RMa S Ramamoorthy,P Manning; J.Inorg.Nucl.Chem.,36,1671 (1974)
1974RMb S Ramamoorthy,P Manning; J.Inorg.Nucl.Chem.,36,695 (1974)
1974RMf E Riecanska,J Majer,A Bumbalova,M Kalina; Chem.Zvesti,28,332 (1974)
1974SHb S Stafford,H-J Haupt,F Huber; Inorg.Chim.Acta,11,207 (1974)
1974SJa K Schroder,B Johnsen; Talanta,21,671 (1974)
1973BAa A Bulatova,V Aleskovskii et al; Zh.Prikl.Khim.,46,2761,(E:2918) (1973)
1973BHb A Bond,G Hefter; J.Electroanal.Chem.,42,1 (1973)
1973BSa C Bhandari,N Sogani; Bull.Acad.Polon.Sci.Chim.,21,239 (1973)
1973BSc C Bhandari,N Sogani; J.Inst.Chem.,(India),45,138 (1973)
1973BSe B Budesinsky,M Sagat; Talanta,20,228 (1973)
1973BVa E Bottari,M Vicedomini; J.Inorg.Nucl.Chem.,35,1269 (1973)
1973BVb E Bottari,M Vicedomini; J.Inorg.Nucl.Chem.,35,2447 (1973)
1973CSb R Chawla,R Singh; Microchem.J.,18,646 (1973)
1973CTb A Corrie,M Touche,D Williams; J.Chem.Soc.,Dalton Trans.,2561 (1973)
1973DSa P Das,O Sunar,C Trivedi; J.Inorg.Nucl.Chem.,35,316;677 (1973)
1973ENa L Egorova,V Nirenburg; Zh.Obshch.Khim.,43,6,1396;1548 (1973)
1973GSd I Gorelov,A Samsonov,M Kolosova; Zh.Neorg.Khim.,18,7,1767;2204 (1973)
1973HHb M Hutchinson,W Higginson; J.Chem.Soc.,Dalton Trans.,1247 (1973)
1973MSd M Mittal,R Saxena,A Pandey; J.Inorg.Nucl.Chem.,35,1691 (1973)
1973NHb T Nozaki,T Hashimoto; Nippon Kagaku Kaishi,1794 (1973)
1973NOb T Nozaki,Y Ohno; Nippon Kagaku Kaishi,1455 (1973)
1973NPa S Nushi,I Piljac,B Grabaric et al; Croat.Chem.Acta,45,453 (1973)
1973NRa J Nriagu; Geochim.Cosmo.Acta,37,367;1735;2357 (1973)
1973PPb B Pokric,Z Pucar; J.Inorg.Nucl.Chem.,35,1987 (1973)
1973RBc E Russeva,O Budevsky; Talanta,20,1329 (1973)
1973SCd H Steger,A Corsini; J.Inorg.Nucl.Chem.,35,1621 (1973)
1973SLb V Samoilenko,V Lyashenko; Zh.Neorg.Khim.,18,2402(E:1271) (1973)
1973SSa R Scharff,V Sastri,C Chakrabarti; Anal.Chem.,45,413 (1973)
1973TTb K Tsvetanov,A Tonov,K Kanchev; Monatsh.Chem.,104,496 (1973)
1973VIa F Vierling; Ann.Chim.,(France),8,53 (1973)
1972BAa N Bertazzi,G Alonzo,A Silvestri; J.Inorg.Nucl.Chem.,34,1943 (1972)
1972BHb A Bond,G Hefter; J.Electroanal.Chem.,34,227 (1972)
1972BSc D Barltrop,A Smith; Experientia(Basel),28,76 (1972)
1972BVb E Bottari,M Vicedomini; J.Inorg.Nucl.Chem.,34,1897 (1972)
1972CAa L Campanella,G D'Angelis,A Napoli; Bull.Soc.Chim.Belges,81,489 (1972)
1972DKa E Dvorakova,B Kopecka,J Majer et al; Chem.Zvesti,26,316 (1972)
1972DSa Y Delimarskii,V Shapoval,A Zhigailo; Elektrokhim.,8,1767(E:1714) (1972)
1972DSc P Das,O Sunar,C Trivedi; J.Indian Chem.Soc.,49,1109 (1972)
1972EGa L Egorova; Zh.Obshch.Khim.,42,2240 (1972)
1972FRa V Fedorov,A Robov,T Grigor et al; Zh.Neorg.Khim.,17,1909(E:990) (1972)
1972FSc V Fedorov,N Samsonova,V Mironov; Zh.Neorg.Khim.,17,1301(E:674) (1972)

1972FSd V Fedorov,L Shishin,V Mironov; Zh.Neorg.Khim.,17,1616(E:836) (1972)
1972FSe V Fedorov,L Shishin,S Likhacheva et al; Zh.Neorg.Khim.,17,79(E:41) (1972)
1972FSf V Fedorov,L Shishin,V Mironov; Zh.Neorg.Khim.,17,836 (1972)
1972FVa J Frausto da Silva,M Vaz; Rev.Port.Quim.,14,102 (1972)
1972GBe I Gorelov,V Babich; Zh.Obshch.Khim.,42,434 (1972)
1972GDa P Govil,C Dwivedi,S Banerji; Isr.J.Chem.,10,685 (1972)
1972HEa G Hefter; J.Electroanal.Chem.,39,345 (1972)
1972LWa P Letkeman,J Westmore; Can.J.Chem.,50,3821 (1972)
1972MCb G Manku,R Chadha,N Nayar,M Sethi; J.Inorg.Nucl.Chem.,34,1091 (1972)
1972MCe T Mikhailova,L Cherepanova et al; Zh.Fiz.Khim.,46,2,513;515 (1972)
1972MRc P Manning,S Ramamoorthy; J.Inorg.Nucl.Chem.,34,1997 (1972)
1972NAa A Napoli; Gazz.Chim.Ital.,102,273;724 (1972)
1972NGa R Nikolic,I Gal; J.Chem.Soc.,Dalton Trans.,162 (1972)
1972NRc J Nriagu; Inorg.Chem.,11,2499 (1972)
1972PMa G Pilloni,F Magno; Inorg.Chim.Acta,5,30 (1972)
1972PMb A Pandey,M Mittal; J.Inorg.Nucl.Chem.,34,2365 (1972)
1972RBb E Russeva,O Budevsky; Itz.Otd.Khim.Nauki,Bulg.,5,253 (1972)
1972RGb P Rawat,C Gupta; J.Inorg.Nucl.Chem.,34,951,1621 (1972)
1972RLb D Rabenstein,S Libich; Inorg.Chem.,11,2960 (1972)
1972SCc R Saxena,U Chaturvedi; J.Indian Chem.Soc.,49,321 (1972)
1972SFa N Samsonova,V Fedorov,V Mironov; Zh.Fiz.Khim.,46,2153(E:1233) (1972)
1972TBc V Toropova,F Baryshina et al; Zh.Obshch.Khim.,42,214 (1972)
1972TCa V Toropova,R Cherkasov,N Savelyeva et al; Zh.Obshch.Khim.,42,7,1485 (1972)
1972VEa V Vetere; Lab.Ensayo Mater.Inv.Tec.II.,3,79 (1972)
1971BHb A Bond,G Hefter; J.Electroanal.Chem.,31,477 (1971)
1971BOa A Bond; Anal.Chim.Acta,53,159 (1971)
1971BSg I Bhatt,K Soni; J.Indian Chem.Soc.,48,96;151 (1971)
1971BVa E Bottari,M Vicedomini; Gazz.Chim.Ital.,101,671;860;871 (1971)
1971DTc R Dietzel,P Thomas; Z.Anorg.Allg.Chem.,381,214 (1971)
1971GFb E Guynner,A Fedorenko; Zh.Neorg.Khim.,16,3371(E:1784) (1971)
1971GFc T Grigor,V Fedorov,V Mironov; Zh.Neorg.Khim.,16,633(E:337) (1971)
1971ISa H Irving,K Sharpe; J.Inorg.Nucl.Chem.,33,203;217;233 (1971)
1971JSa K Jain,S Sawhney; J.Sci.Res.(Hardwar,India),3,15 (1971)
1971KAa B Karadakov,A Aleksieva,D Venkova et al; God.Vissh.Khim.Inst.(Sofia),18,125;185 (1971)
1971KBb B Karadakov,D Boikova,A Aleksieva; Dokl.Bolg.Akad.Nauk,24,1031 (1971)
1971KSd B Kuznik,D Sulikowska; Rocz.Chem.,45,959 (1971)
1971KTd M Kodama,S Takahashi; Bull.Chem.Soc.Jpn.,44,697 (1971)
1971NTa T Nozaki,A Tanaka,T Nishimoto; Nippon Kagaku Kaishi,92,159 (1971)
1971PEd S Pelletier; J.Chim.Phys.,68,1383 (1971)
1971SAa A Sandell; Acta Chem.Scand.,25,1795 (1971)
1971SCe R Saxena,U Chaturvedi; J.Inorg.Nucl.Chem.,33,3597 (1971)
1971SEa I Shikhova,M Ermakova,N Latosh; Zh.Obshch.Khim.,41,6,1329 (1971)
1971SLb M Shtokalo,V Lukachina; Zh.Neorg.Khim.,16,2502 (1971)
1971SSh F Shevchenko,L Sidorenko; Ukr.Khim.Zh.,37,8,747 (1971)
1971TCa V Toropova,R Cherkasov,N Savelyeva et al; Zh.Obshch.Khim.,41,7,1469;8,1673 (1971)
1971TLa J Tummavuori,P Lumme; Suomen Kem.,B44,215;222;343;350 (1971)

1971TMf V Tsiplyakova,P Migal,N Syen; Zh.Neorg.Khim.,16,9,2341 (1971)
1971VGa V Vasilev,S Glavin; Elektrokhim.,7,1395(E:1353) (1971)
1971VIa F Vierling; Bull.Soc.Chim.Fr.,22;25 (1971)
1971WSa O Weber,V Simeon; Biochim.Biophys.Acta,244,94 (1971)
1971WSd O Weber,V Simeon; J.Inorg.Nucl.Chem.,33,2097 (1971)
1971YMb A Yingst,A Martell; J.Inorg.Nucl.Chem.,33,1693 (1971)
1970BEa A Bellomo; Talanta,17,1109 (1970)
1970BHb A Bond,G Hefter; Inorg.Chem.,9,1021 (1970)
1970BTa J Bunting,K Thong; Can.J.Chem.,48,1654 (1970)
1970CLa J Carney,H Laitinen; Anal.Chem.,42,473 (1970)
1970DKa E Dvorakova,B Kopecka,J Majer et al; Chem.Zvesti,26,316 (1970)
1970FBa I Filipovic,A Bujak,V Vukicevic; Croat.Chem.Acta,42,493 (1970)
1970FMa I Filipovic,T Matusinovic,B Mayer et al; Croat.Chem.Acta,42,541 (1970)
1970FSb V Fedorov,N Samsonova,V Mironov; Zh.Neorg.Khim.,15,2561(E:1325) (1970)
1970FUa Y Fujii,T Ueda,M Kodama; Bull.Chem.Soc.Jpn.,43,409 (1970)
1970GDa D Goel,Y Dutt,R Singh; J.Inorg.Nucl.Chem.,32,2119 (1970)
1970GNa G Gardner,G Nancollas; Anal.Chem.,42,794 (1970)
1970GPc J Gaur,M Palrecha; J.Inorg.Nucl.Chem.,32,1375 (1970)
1970GWa E Garrett,D Weber; J.Pharm.Sci.,59,1383 (1970)
1970HAa L Harju; Anal.Chim.Acta,50,475 (1970)
1970HSc W Higginson,B Samuel; J.Chem.Soc.(A),1579 (1970)
1970JOb C Johansson; Talanta,17,739 (1970)
1970KBa B Karadakov,D Boikova,A Aleksieva; Compt.Rend.Acad.Bulg.Sci.,11,1385 (1970)
1970KLa L Klatt; Anal.Chem.,42,1837 (1970)
1970NDa R Nayan,A Dey; Z.Naturforsch.,25B,1453 (1970)
1970PMb G Pilloni,F Magno; Inorg.Chim.Acta,4,105 (1970)
1970PPc Z Pavlovic,R Popovic; Rev.Roumaine Chim.,15,313 (1970)
1970PTd R Portanova,G Tomat,L Magon,A Cassol; J.Inorg.Nucl.Chem.,32,2343 (1970)
1970SAa A Sandell; Acta Chem.Scand.,24,1561;1718;3391 (1970)
1970SZa V Samoilenko,M Zhukov; Ukr.Khim.Zh.,36,765 (1970)
1970TPb F Tulyupa,V Pavlichenko,Y Usatenko; Ukr.Khim.Zh.,36,2,201 (1970)
1970VIa M Vicedomini; Ann.Chim.,(Rome),60,147 (1970)
1970VOa G Voldman; Zh.Fiz.Khim.,44,2066(E:1171) (1970)
1969ANa L Andersson; Ark.Kemi.,30,57 (1969)
1969BAc N Baranova; Zh.Neorg.Khim.,14,3257(E:1717) (1969)
1969BOc K Boiko; Ukr.Khim.Zh.,35,596 (1969)
1969CHa P Chartier; Bull.Soc.Chim.Fr.,2253 (1969)
1969DIa D Dyrssen,E Ivanova,K Aren; Vestnik Moskov Univ.,24,1,41 (1969)
1969FFa F Fromage,S Fiorina; Compt.Rend.,268C,1511;1764 (1969)
1969FRb V Fedorov,A Robov,V Mironov; Zh.Neorg.Khim.,14,2720(E:1432) (1969)
1969FSa V Fedorov,N Samsonova et al; Zh.Neorg.Khim.,14,3264(E:1721) (1969)
1969FTa I Filipovic,M Tkalcec,B Mayer,I Piljac; Croat.Chem.Acta,41,145 (1969)
1969GMb W Gardner,R Mitchell,J Cobble; J.Phys.Chem.,73,2021 (1969)
1969GSe F Grigorenko,A Suprunenko; Vestnik Kiev Univ.,Ser.Khim.,9,67;10,73 (1969)
1969HEa H Helgeson; Am.J.Sci.,267,729 (1969)
1969HLa D Hopgood,D Leussing; J.Am.Chem.Soc.,91,3740 (1969)
1969IKa O Izbekova,O Kudra,V Suprunchuk; Zh.Neorg.Khim.,14,2049(E:1075) (1969)
1969IMa E Ivanova,P Migal; Zh.Neorg.Khim.,14,12,3269 (1969)

1969KBb B Karadakov,D Boikova,A Aleksieva et al;
God.Vissh.Khim.Inst.(Sofia),16,343 (1969)
1969KMb M Kodama,K Miyamoto; Bull.Chem.Soc.Jpn.,42,835 (1969)
1969LCa T Lai,M Chen; Talanta,16,544 (1969)
1969LSa S Livingstone,E Sullivan; Australian J.Chem.,22,1363 (1969)
1969LUa W Lund; Anal.Chim.Acta,45,109 (1969)
1969LWb B Lenarcik,Z Warnke; Rocz.Chem.,43,1329 (1969)
1969NDb V Novak,E Dvorakova,M Svicekova et al; Chem.Zvesti,23,330 (1969)
1969NDc V Novak,E Dvorakova,M Svicekova et al; Chem.Zvesti,23,861 (1969)
1969NKa T Nozaki,K Koshiba,Y Ono; Nippon Kagaku Kaishi,90,1147 (1969)
1969PDb A Pavlinova,L Demyanchuk; Zh.Neorg.Khim.,14,4,959 (1969)
1969PFb V Peruzzo,S Faleschini,G Plazzogna; Gazz.Chim.Ital.,99,993 (1969)
1969PMa G Pilloni,F Milani; Inorg.Chim.Acta,3,689 (1969)
1969PPd L Porter,D Perrin,R Hay; J.Chem.Soc.(A),118 (1969)
1969TKa T Tanabe,K Kimura,S Takamoto; Nippon Kagaku Kaishi,90,598 (1969)
1969UTa E Uhlemann,P Thomas,G Klose,E Arnold; Z.Anorg.Allg.Chem.,364,153 (1969)
1969VPa E Verdier,J Piro; Ann.Chim.,(France),4,213 (1969)
1969YPa K Yadava,U Pandey; J.Inorg.Nucl.Chem.,31,2343 (1969)
1969ZPa P Zanella,G Plazzogna; Ann.Chim.,(Italy),59,1160 (1969)
1968ABa Y Atoks,Y Bankovskii; Izv.Akad.Nauk Latv.SSR,Khim.,1,122 (1968)
1968ANb L Andras; Kozp.Fiz.Kut.Intez.Kozlem,16,237 (1968)
1968BAb N Baranova; Geokhim.,17 (1968)
1968BHa H Bloom,J Hastie; Australian J.Chem.,21,583 (1968)
1968BLa E Bottari,A Liberti; Gazz.Chim.Ital.,98,991 (1968)
1968CFd B Costley,J Farr; Chem.& Ind.,1435 (1968)
1968FPa I Filipovic,I Piljac,A Medved et al; Croat.Chem.Acta,40,131 (1968)
1968FSc V Fedorov,N Samsonova,V Mironov; Zh.Neorg.Khim.,13,382 (1968)
1968GFa G Gutnikov,H Freiser; Anal.Chem.,40,39 (1968)
1968GPb J Gaur,M Palrecha; Talanta,15,583 (1968)
1968HAa D Hopgood,R Angelici; J.Am.Chem.Soc.,90,2508 (1968)
1968ICa J Israeli,M Cecchetti; Can.J.Chem.,46,3821;3835 (1968)
1968ILa D Inman,D Lovering,R Narayan; Trans.Faraday Soc.,64,2476 (1968)
1968JKb D Jain,A Kumar,J Gaur; J.Electroanal.Chem.,17,201 (1968)
1968KSc M Kodama,C Sasaki; Bull.Chem.Soc.Jpn.,41,127 (1968)
1968KTd S Kundra,L Thompson; J.Inorg.Nucl.Chem.,30,1847 (1968)
1968LCc T Lai,J Chen; J.Electroanal.Chem.,16,413 (1968)
1968MJa J Majer,V Jokl,E Dvorakova et al; Chem.Zvesti,22,415 (1968)
1968MRb J Majer,E Riecanska; Chem.Zvesti,22,15 (1968)
1968NLa V Novak,J Lucansky,J Majer; Chem.Zvesti,22,721 (1968)
1968NLb V Novak,L Lucansky,J Majer; Chem.Zvesti,22,733 (1968)
1968PRc A Pilipenko,O Ryabushko,T Makarenko; Ukr.Khim.Zh.,34,8,823 (1968)
1968RFa J Reyes,H Frye; Z.Naturforsch.,23B,429;606 (1968)
1968SAd V Samoilenko; Zh.Neorg.Khim.,13,79 (1968)
1968SCa D Soucek,K Cheng,H Droll; Talanta,15,849 (1968)
1968SCc F Smirous,J Celeda; Collec.Czech.Chem.Commun.,33,1017 (1968)
1968SKd K Suzuki,C Karaki,S Mori,K Yamasaki; J.Inorg.Nucl.Chem.,30,167 (1968)
1968SNa K Suzuki,I Nakano,K Yamasaki; J.Inorg.Nucl.Chem.,30,545 (1968)
1968SRg J Stary,J Ruzicka; Talanta,15,505 (1968)
1968STc P Stantscheff; Z.Anal.Chem.,234,109 (1968)
1968TFa B Topazovski,I Filipovic; Croat.Chem.Acta,40,257 (1968)

1968VIa M Vicedomini; Gazz.Chim.Ital.,98,1152;1161 (1968)
1968YPa K Yadava,U Pandey,K Lal; J.Inorg.Nucl.Chem.,30,2915 (1968)
1967ANa R Anderson,G Nickless; Anal.Chim.Acta,39,469 (1967)
1967BAf N Baranova; Zh.Neorg.Khim.,12,1438 (1967)
1967BPa O Budevsky,E Platikanova; Talanta,14,901 (1967)
1967CHa P Chartier; Bull.Soc.Chim.Fr.,2706 (1967)
1967CTa J Carr,K Torrance,C Cruz,C Reilly; Anal.Chem.,39,1358 (1967)
1967FRb V Fedorov,A Robov,V Mironov; Zh.Neorg.Khim.,12,3307 (1967)
1967GKa S Gusev,I Kozhevnikova,L Maltseva et al; Zh.Anal.Khim.,22,1190 (1967)
1967GUa S Gusev et al; Zh.Anal.Khim.,22,376;731;863;1190,1357 (1967)
1967HMc A Hulanicki,M Minczewska; Talanta,14,677 (1967)
1967JGa D Jain,J Gaur; Acta Chim.Acad.Sci.Hung.,51,165 (1967)
1967KNa A Kumar,H Nigam; Indian J.Chem.,5,48 (1967)
1967LCb T Lai,S Chen,E Lin; Talanta,14,251 (1967)
1967LDa R Lastovskii,N Dyatlova,I Seliverstova; Zh.Neorg.Khim.,12,12,3351 (1967)
1967LMd F L'Eplattenier,I Murase,A Martell; J.Am.Chem.Soc.,89,837 (1967)
1967MEa A Merbach; Helv.Chim.Acta,50,1431 (1967)
1967MSd M Mishra,S Sinha,H Nigam; Indian J.Chem.,5,649 (1967)
1967MSe M Mishra,S Sinha,H Nigam; Indian J.Chem.,5,649 (1967)
1967NMa T Nozaki,T Mise,K Higaki; Nippon Kagaku Kaishi,88,1168 (1967)
1967NPb G Nickless,F Pollard,T Samuelson; Anal.Chim.Acta,39,37 (1967)
1967NTa G Nancollas,K Torrance; Inorg.Chem.,6,1567 (1967)
1967PIa G Pilloni; Anal.Chim.Acta,37,497 (1967)
1967PSd D Perrin,V Sharma; J.Chem.Soc.(A),724 (1967)
1967SBb K Srivastava,S Banerjee; Australian J.Chem.,20,1385 (1967)
1967SFb P Shetty,Q Fernando; J.Inorg.Nucl.Chem.,29,1921 (1967)
1967SIa G Schorsch,N Ingri; Acta Chem.Scand.,21,2727 (1967)
1967TGa H Thun,W Guns,F Verbeek; Anal.Chim.Acta,37,332 (1967)
1967VLa M Vicedomini,A Liberti; Gazz.Chim.Ital.,97,1627 (1967)
1966AAa S Aditya,S Aditya,S Mukherjee; J.Electrochem.Soc.Jpn.,34,203 (1966)
1966AMc C Auerbach,D McGuire; J.Inorg.Nucl.Chem.,28,2659 (1966)
1966BJa W Bennett,W Jensen; J.Inorg.Nucl.Chem.,28,1829 (1966)
1966CRb D Crow; J.Polarog.Soc.,12,101 (1966)
1966FTa C Freidline,R Tobias; Inorg.Chem.,5,354 (1966)
1966GAd A Golub,R Akmyradov; Zh.Neorg.Khim.,11,2347 (1966)
1966GKa R Gillespie,R Kapoor,E Robinson; Can.J.Chem.,44,1197;1203 (1966)
1966HSb M Hnilickova,L Sommer; Talanta,13,667 (1966)
1966IWa R Isbell,E Wilson,D Smith; J.Phys.Chem.,70,2493 (1966)
1966JGb D Jain,J Gaur; J.Indian Chem.Soc.,43,425 (1966)
1966JGc D Jain,J Gaur; J.Polarog.Soc.,12,59 (1966)
1966MAf O Makitie; Suomen Kem.,B39,171 (1966)
1966MAg O Makitie; Suomen Kem.,B39,218 (1966)
1966MBb W Masterton,L Berka; J.Phys.Chem.,70,1924 (1966)
1966MKb J Majer,M Kotoucek,E Dvorakova; Chem.Zvesti,20,242 (1966)
1966MSa M Miyazaki,T Senshu,I Tamura; Chem.Pharm.Bull.,14,114 (1966)
1966MSg J Majer,V Springer,B Kopecka; Chem.Zvesti,20,414 (1966)
1966NHb L Nilsson,G Haight; Acta Chem.Scand.,20,486 (1966)
1966PAa O Puplikova,L Akimova,I Savich; Vestnik Moskov Univ.,3,106 (1966)
1966SWa V Simeon,O Weber; Croat.Chem.Acta,38,161 (1966)
1966SYa K Suzuki,K Yamasaki; J.Inorg.Nucl.Chem.,28,473 (1966)

1966TAa V Toropova,Y Azizov; Zh.Neorg.Khim.,11,3,531 (1966)
1966TYa L Tikhonova,K Yatsimirskii; Zh.Neorg.Khim.,11,10,2259 (1966)
1966USa E Uhlemann,W Suchan; Z.Anorg.Chem.,342,41 (1966)
1966VSa F Vierling,G Schorsch,J Bye; Rev.Chim.Minerale,3,875 (1966)
1966WBa Z Warnke,A Basinski; Rocz.Chem.,40,1141 (1966)
1965ANa G Anderegg; Helv.Chim.Acta,48,1712;1718;1722 (1965)
1965BBc N Baranova,V Barsukov; Geokhim.,1093 (1965)
1965BCc E Bottari,L Ciavatta; J.Inorg.Nucl.Chem.,27,133 (1965)
1965BWb A Basinski,Z Warnke; Rocz.Chem.,39,1776 (1965)
1965BWc A Basinski,Z Warnke; Trans.Faraday Soc.,61,129 (1965)
1965CDc A Covington,J Dobson,W Wynne-Jones; Trans.Faraday Soc.,61,2050;2057 (1965)
1965FBa A Fiskin,M Beer; Biochemistry,4,1289 (1965)
1965GAc A Golub,R Akmyradov; Izv.VUZ.Khim.,8,186 (1965)
1965HPa G Haight,J Peterson; Inorg.Chem.,4,1073 (1965)
1965HUa R Hugel; Bull.Soc.Chim.Fr.,968;971;2017 (1965)
1965JGb D Jain,J Gaur; J.Indian Chem.Soc.,42,753,759 (1965)
1965JMa V Jokl,J Majer; Acta Fac.Pharm.Brun.Bratislav.,10,55 (1965)
1965JMb V Jokl,J Majer; Chem.Zvesti,19,249;281 (1965)
1965LIc K Lieser; Z.Anorg.Chem.,339,208 (1965)
1965MAd L Marple; J.Inorg.Nucl.Chem.,27,1693 (1965)
1965MKb V Mironov,F Kulba,V Fedorov; Zh.Neorg.Khim.,10,1388 (1965)
1965MKc V Mironov,F Kulba,V Fedorov; Zh.Neorg.Khim.,10,914 (1965)
1965OGa H Ogino; Bull.Chem.Soc.Jpn.,38,771 (1965)
1965PSe M Partashnikova,I Shafran; Zh.Anal.Khim.,20,288 (313) (1965)
1965SFa E Sekido,Q Fernando,H Freiser; Anal.Chem.,37,1556 (1965)
1965SMg G Schweitzer,S McCarty; J.Inorg.Nucl.Chem.,27,191 (1965)
1965SMh F Snavely,W Magen,D Kozart; J.Inorg.Nucl.Chem.,27,679 (1965)
1965SPa C Sinistri,E Pezzatti; Ricerca Sci.,35,979 (1965)
1965SSa D Shuman,B Sen; Anal.Chim.Acta,33,487 (1965)
1965TFa S Takamoto,Q Fernando,H Freiser; Anal.Chem.,37,1249 (1965)
1965VFa E Verdier,J Fournier; J.Chim.Phys.,62,1196 (1965)
1965WHa D Wright,J Holloway,C Reilly; Anal.Chem.,37,884 (1965)
1964AMa D Archer,C Monk; J.Chem.Soc.,3117 (1964)
1964ANa G Anderegg; Helv.Chim.Acta,47,1801 (1964)
1964APb V Altynov,B Ptitsyn; Zh.Neorg.Khim.,9,2407 (1964)
1964BLc A Basinski,B Lenarcik; Rocz.Chem.,38,1035;1725 and 40,165 (1964)
1964BMa J Braunstein,A Minano; Inorg.Chem.,3,218 (1964)
1964BMc E Benyash,T Maslakova; Zh.Neorg.Khim.,9,2731 (1964)
1964BSe D Banerjea,I Singh; Z.Anorg.Chem.,331,225 (1964)
1964BUe E Buketov,M Ugorets,A Pashinkin; Zh.Neorg.Khim.,9,526 (1964)
1964CCa S Carrano,K Chem,R O'Malley; Inorg.Chem.,3,1047 (1964)
1964CCb S Carrano,K Chem,R O'Malley; Inorg.Chem.,3,1947 (1964)
1964GAa A Golub,R Akmyradov; Ukr.Khim.Zh.,30,1016 (1964)
1964HUa R Hugel; Bull.Soc.Chim.Fr.,1462 (1964)
1964ICb H Irving,J Conesa; J.Inorg.Nucl.Chem.,26,1945 (1964)
1964JGa D Jain,J Gaur; Indian J.Chem.,2,503 (1964)
1964KKc D Klein,G Kersels; J.Inorg.Nucl.Chem.,26,1325 (1964)
1964KLa O Kolling,J Lambert; Inorg.Chem.,3,202 (1964)
1964KMb F Kulba,V Mironov,G Kolyushenkova; Zh.Neorg.Khim.,9,1638 (1964)

1964LAa F L'Eplattenier,G Anderegg; Helv.Chim.Acta,47,1792 (1964)
1964LMa G Lenz,A Martell; Biochemistry,3,745;750 (1964)
1964MAa L Marple; J.Inorg.Nucl.Chem.,26,643 (1964)
1964MKb V Mironov,F Kulba,V Fedorov; Zh.Neorg.Khim.,9,1487 (1964)
1964MKd V Mironov,F Kulba,V Fedorov; Zh.Neorg.Khim.,9,1641 (1964)
1964MKf V Mironov,F Kulba,V Fedorov et al; Zh.Neorg.Khim.,9,2138 (1964)
1964MNa J Majer,V Novak,M Svicekova; Chem.Zvesti,18,481 (1964)
1964MSb O Mathre,E Sandell; Talanta,11,295 (1964)
1964MSd P Migal,G Serova; Zh.Neorg.Khim.,9,978 (1806) (1964)
1964PCa Personal Communication etc; Chem.Soc.Spec.Publ.,no.17 (1964)
1964RPa P Rock,R Powell; Inorg.Chem.,3,1593 (1964)
1964RSe G Rao,R Subrahmanya; Proc.Indian Acad.Sci.,60,165;185 (1964)
1964SSc P Shetty,P Subbaraman,J Gupta; Indian J.Chem.,2,8 (1964)
1964STc F Snavely,W Trahanovsky,F Suydam; Inorg.Chem.,3,123 (1964)
1963ANa T Ando; Bull.Chem.Soc.Jpn.,36,1593 (1963)
1963ANb G Anderegg; Helv.Chim.Acta,46,1833;2813 (1963)
1963ANf G Anderegg; Helv.Chim.Acta,46;1833 (1963)
1963ANg G Anderegg; Helv.Chim.Acta,46,2397 (1963)
1963ASa K Al-Komser,B Sen; Inorg.Chem.,2,1219 (1963)
1963CFa A Corsini,Q Fernando,H Freiser; Anal.Chem.,35,1424 (1963)
1963CKa M Chepelevetskii,K Kharitonovich; Zh.Anal.Khim.,18,357 (1963)
1963DGc A Donda,A Giuliani; Ricerca Sci.,33 (II-A),819 (1963)
1963DGd Y Delimarskii,V Grishchenko; Ukr.Khim.Zh.,29;502,507 (1963)
1963FCa J Frausto da Silva,J Calado; Rev.Port.Quim.,5,121 (1963)
1963FSa W Feitknecht,P Schindler; Pure & Appl.Chem.,6,130 (1963)
1963GOa S Gobom; Acta Chem.Scand.,17,2181 (1963)
1963IFa H Irving,J Frausto da Silva; J.Chem.Soc.,1144 (1963)
1963IFb H Irving,J Frausto da Silva; J.Chem.Soc.,448;458;3308 (1963)
1963IFc H Irving,J Frausto da Silva; J.Chem.Soc.,945 (1963)
1963KEb J Kennedy; J.Phys.Chem.,67,1432 (1963)
1963MBc D Manning,M Blander,J Braunstein; Inorg.Chem.,2,345 (1963)
1963MFa V Mironov,V Fedorov; Zh.Neorg.Khim.,8,2529 (1963)
1963MFe V Mironov,V Fedorov,V Nazarov; Zh.Neorg.Khim.,8,2109 (1963)
1963MHb S Mesaric,D Hume; Inorg.Chem.,2,788 (1963)
1963MId V Mironov; Zh.Neorg.Khim.,8,764 (1963)
1963MKb V Mironov,F Kulba,V Fedorov et al; Zh.Neorg.Khim.,8,2524 (1963)
1963MKc V Mironov,F Kulba,V Fedorov et al; Zh.Neorg.Khim.,8,2536 (1963)
1963MKd V Mironov,F Kulba,V Fedorov; Zh.Neorg.Khim.,8,1161 (1963)
1963MKf V Mironov,F Kulba,O Trifonov; Zh.Neorg.Khim.,8,2113 (1963)
1963MMa W Malik,M Muzaffaruddin; J.Electroanal.Chem.,6,214 (1963)
1963NMd R Nasanen,P Merilainen,M Hyle; Suomen Kem.,B36,73 (1963)
1963RSc M Rolla,C Sinistri; Ann.Chim.,(Italy),53,535 (1963)
1963SHb M Shchigol; Zh.Neorg.Khim.,8,1361 (1963)
1963STc J Stary; Anal.Chim.Acta,28,132 (1963)
1963SYa F Snavely,C Yoder,F Suydam; Inorg.Chem.,2,708 (1963)
1962APa V Altynov,B Ptitsyn; Zh.Neorg.Khim.,7,2103 (1962)
1962BDb A Berka,V Dvorak,I Nemec,J Zyka; J.Electroanal.Chem.,4,150 (1962)
1962COa B Carell,A Olin; Acta Chem.Scand.,16,2350;2357 (1962)
1962CRa E Coates,B Rigg; Trans.Faraday Society,58,88;2058 (1962)
1962ETc A Egorov,Z Titova; Zh.Neorg.Khim.,7,275 (1962)

1962FCa J Faucherre,A Crego; Bull.Soc.Chim.Fr.,1820 (1962)
1962GNa W Geary,G Nickless,F Pollard; Anal.Chim.Acta,26,575;27,71 (1962)
1962GNb W Geary,G Nickless,F Pollard; Anal.Chim.Acta,27,71 (1962)
1962JSa E Jacobsen,K Schroder; Acta Chem.Scand.,16,1393 (1962)
1962KPa R Kolat,J Powell; Inorg.Chem.,1,293 (1962)
1962KRa E Kuchinkos,Y Rosen; Arch.Biochem.Biophys.,97,370 (1962)
1962MGa P Migal,N Grinberg; Zh.Neorg.Khim.,7,268(527),675(1309) (1962)
1962MGb P Migal,N Grinberg; Zh.Neorg.Khim.,7,270 (531) (1962)
1962MGc P Migal,N Grinberg; Zh.Neorg.Khim.,7,531 (1962)
1962MSa P Migal,G Serova; Zh.Neorg.Khim.,7,827 (1601) (1962)
1962NMf R Nasanen,P Merilainen,R Havanka; Acta Chem.Scand.,16,1549 (1962)
1962NMg R Nasanen,P Merilainen,L Oja; Suomen Kem.,B35,105 (1962)
1962POa L Pajdowski,A Olin; Acta Chem.Scand.,16,983 (1962)
1962SCc F Snavely,G Craver; Inorg.Chem.,1,890 (1962)
1962SIc C Sinistri; Ricerca Sci.,2,638 (1962)
1962SSa S Saraiya,V Srinivasan,A Sundaram; Curr.Sci.,31,187 (1962)
1962SYa K Suzuki,K Yamasaki; J.Inorg.Nucl.Chem.,24,1093 (1962)
1962VIa L Vanyukova,M Isaeva,B Kabanov; Dokl.Akad.Nauk SSSR,143,377 (1962)
1962VOa J van Norman,R Osteryoung; J.Phys.Chem.,66,1565 (1962)
1961AMa S Armanet,J Merlin; Bull.Soc.Chim.Fr.,440 (1961)
1961DGb F Duke,H Garfinkel; J.Phys.Chem.,65,1627 (1961)
1961DSa C Dragulescu,T Simonescu,I Menessy; Stud.Cercet.Chim.Timisoara,8,10 (1961)
1961GGc A Golub,G Golodets; Ukr.Khim.Zh.,27,141 (1961)
1961GRb A Golub,L Romanenko; Ukr.Khim.Zh.,27,11 (1961)
1961HSb M Hnilickova,L Sommer; Collec.Czech.Chem.Commun.,26,2189 (1961)
1961KMc F Kulba,V Mironov,G Troitskaya et al; Zh.Neorg.Khim.,6,1865 (1961)
1961KOa I Korenman; Isvest.VUZ.Khim.,4,554 (1961)
1961MGa P Migal,N Grinberg; Zh.Neorg.Khim.,6,727 (1961)
1961MIb V Mironov; Zh.Neorg.Khim.,6,405 (1961)
1961MIc V Mironov; Zh.Neorg.Khim.,6,659 (1961)
1961MId V Mironov; Zh.Neorg.Khim.,6,897 (1961)
1961NMc R Nasanen,P Merilainen,K Leppanen; Acta Chem.Scand.,15,913 (1961)
1961NRa C Nyman,D Roe,R Plane; J.Am.Chem.Soc.,83,323 (1961)
1961PSa P Proll,L Sutcliffe; Trans.Faraday Society,57,1078 (1961)
1961RSa R Ramette,R Stewart; J.Phys.Chem.,65,243 (1961)
1961SHa H Shimura; Nippon Kagaku Kaishi,82,641 (1961)
1961SRa P Schindler,M Reinert; Chimia,15,534 (1961)
1961TBa V Toropova,F Batyrshina; Isvest.VUZ.Khim.,4,11 (1961)
1961TKa N Tanaka,M Kamada,G Sato; Bull.Chem.Soc.Jpn.,34,541 (1961)
1961TPa S Talipov,V Podgornova; Dokl.Akad.Nauk Uzbeksk.SSR,10,34 (1961)
1961TPb S Talipov,V Podgornova; Uzbeksk.Khim.Zh.,2,25 (1961)
1961TPc S Talipov,V Podgornova,G Zinina; Uzbeksk.Khim.Zh.,4,11 (1961)
1960ANb G Anderegg; Helv.Chim.Acta,43,414 (1960)
1960COa B Carell,A Olin; Acta Chem.Scand.,14,1999 (1960)
1960COd J Christie,R Osteryoung; J.Am.Chem.Soc.,82,1841 (1960)
1960FFa P Feng,Q Fernando; J.Am.Chem.Soc.,82,2115 (1960)
1960FSb Y Fridman,D Sarbaev,R Sorochan; Zh.Neorg.Khim.,5,791 (1960)
1960GRc A Golub,L Romanenko; Ukr.Khim.Zh.,26,418 (1960)
1960HRa J Holloway,C Reilly; Anal.Chem.,32,249 (1960)

1960HSa H Hsiung; Diss.Abs.,21,3629 (1960)
1960HSc H Hsiung; Thesis,Univ.Cinc.Univ.Microf.60-6444 (1960)
1960HSd H Hsiung; Thesis,Univ.Cincinnati Microf.60-6444 (1960)
1960HYa K Hsu,C Yen; Scientia Sinica,9,232 (1960)
1960LUa P Lumme; Suomen Kem.,B33,69 (1960)
1960NAf R Nasanen; Suomen Kem.,B33,7;111 (1960)
1960NMa R Nasanen,P Merilainen; Suomen Kem.,B33,149 (1960)
1960OLb A Olin; Acta Chem.Scand.,14,126 (1960)
1960OLc A Olin; Acta Chem.Scand.,14,814 (1960)
1960PEd S Pelletier; Thesis,Univ.Paris (1960)
1960REb A Rescigno; Ann.Chim.,(Italy),50,365 (1960)
1960RKa B vant Riet,I Kolthoff; J.Phys.Chem.,64,1045 (1960)
1960SLb J Szychlinski,B Lenarcik; Rocz.Chem.,34,817 (1960)
1960TKb N Tanaka,K Kato; Bull.Chem.Soc.Jpn.,33,417;1412 (1960)
1960YYa M Yasada,K Yamasaki,H Ohtaki; Bull.Chem.Soc.Jpn.,33,1067 (1960)
1959ANd G Anderegg,P Nageli,F Muller et al; Helv.Chim.Acta,42,827 (1959)
1959BSf W Beck,K Singh,W Wynne-Jones; Trans.Faraday Society,55,331 (1959)
1959BYa C Banks,R Yerick; Anal.Chim.Acta,20,301 (1959)
1959CFb G Cheney,H Freiser,Q Fernando; J.Am.Chem.Soc.,81,2611 (1959)
1959CZa G Czamanske; Econ.Geol.,54,57 (1959)
1959DBb A Dey,S Banerji; Proc.Symp.Chem.of Coord.Comp.,Agra,198 (1959)
1959DLa F Duke,W Lawrence; J.Phys.Chem.,63,2087 (1959)
1959DMb A Dey,K Mathur; Proc.Symp.Chem.of Coord.Comp.,Agra,178 (1959)
1959DPa P Desideri,F Pantani; Gazz.Chim.Ital.,89,1349 (1959)
1959DUa J Duncan; J.Inorg.Nucl.Chem.,11,161 (1959)
1959FBa J Faucherre,Y Bonnaire; Compt.Rend.,248,3705 (1959)
1959GKa A Golub,Y Kosmatyi; Zh.Neorg.Khim.,4,1347 (1959)
1959GOb A Golub; Zh.Neorg.Khim.,4,1577 (1959)
1959GRc A Golub,L Romanenko,V Samoilenko; Ukr.Khim.Zh.,25,50 (1959)
1959JUa R Juvet; J.Am.Chem.Soc.,81,1796 (1959)
1959KBb I Korshunov,G Budov; Trudy po Khim.Tekh.(Univ.Gor'kii),2,489 (1959)
1959KEc D Keyworth; Talanta,2,383 (1959)
1959KLa H Kristiansen,F Langmyhr; Acta Chem.Scand.,13,1473 (1959)
1959MPa P Migal,A Pushnyak; Zh.Neorg.Khim.,4,601 (1336) (1959)
1959NAa R Nasanen; Acta Chem.Scand.,13,869 (1959)
1959NMa R Nasanen,P Merilainen,R Uggla; Suomen Kem.,B32,249 (1959)
1959OHa J Olver,D Hume; Anal.Chim.Acta,20,559 (1959)
1959SKa N Selivanova,A Kapustinskii,G Zubova; Izv.Akad.Nauk(USSR),Otd.Khim.,187 (1959)
1959SYc K Suzuki,K Yamasaki; Proc.Symp.Chem.of Coord.Comp.,Agra,74 (1959)
1959TCa Y Turyan,N Chebotar; Zh.Neorg.Khim.,4,599 (1959)
1959THa H Tsiang,K Hsu; Kexue Tongbao,331;365 (1959)
1959TSa Y Turyan,R Shtipelman; Zh.Neorg.Khim.,4,808 (1959)
1959UGa R Uggla; Ann.Acad.Sci.Fennicae,97 (1959)
1959VKa D Vartak,M Kabadi; Proc.Symp.Chem.Allahabad,1,127 (1959)
1958BGb S Banerjee,A Gupta,S Siddhanta; J.Indian Chem.Soc.,35,269 (1958)
1958CPa R Connick,A Paul; J.Am.Chem.Soc.,80,2069 (1958)
1958DAa D Davis; Anal.Chem.,30,1729 (1958)
1958DIb F Duke,M Iverson; J.Am.Chem.Soc.,80,5061 (1958)
1958DIc F Duke,M Iverson; J.Phys.Chem.,62,417 (1958)

1958JAa L Jager; Chem.Listy,52,734 (1958)
1958LRa T Lane,J Ryan,E Britten; J.Am.Chem.Soc.,80,315 (1958)
1958LUa P Lumme; Suomen Kem.,B31,232;250;253 (1958)
1958MHa C Muldrow,L Hepler; J.Phys.Chem.,62,982 (1958)
1958PDa F Pantani,P Desideri; Gazz.Chim.Ital.,88,1183 (1958)
1958RHa C Reilly,J Holloway; J.Am.Chem.Soc.,80,1022 (1958)
1958SBb S Siddhanta,S Banerjee; J.Indian Chem.Soc.,35,279;323;339;349 (1958)
1958TPb S Talipov,V Podgornova; Dokl.Akad.Nauk Uzbeksk.SSR,5,35 (1958)
1958VAa V Vasilev; Izv.VUZ.Khim.,2,186 (1958)
1958VRb J Vaid,T Ramachar; Bull.India Sect.Elect.Soc.,7,5 (1958)
1958YYa M Yasuda,K Yamasaki; Naturwissenschaft,45,84 (1958)
1958ZKa K Zaborenko,I Kolosov,V Fomin; Dokl.Akad.Nauk SSSR,123,688 (1958)
1957BAa P Barton; Econ.Geol.,52,333 (1957)
1957CFa C Callahan,W Fernelius,B Block; Anal.Chim.Acta,16,101 (1957)
1957CTa V Chukhlantsev,G Tomashevskii; Zh.Anal.Khim.,12,296 (1957)
1957CWa N Clark,B Willoford; J.Am.Chem.Soc.,79,1296 (1957)
1957GRa R Gillespie,E Robinson; Proc.Chem.Soc.,145 (1957)
1957GSa A Golub,V Samoilenko; Ukr.Khim.Zh.,23,17 (1957)
1957HBa H Hershenson,R Brooks,M Murphy; J.Am.Chem.Soc.,79,2046 (1957)
1957IWa A Iwase; J.Chem.Soc.Jpn.,78,1659 (1957)
1957KAa C Karlsson; Personal communication (1957)
1957KLa P Kivalo,R Luoto; Suomen Kem.,B30,163 (1957)
1957KRa P Kivalo,J Rastas; Suomen Kem.,B30,128;143 (1957)
1957LUa P Lumme; Suomen Kem.,B30,176;182;194 (1957)
1957MDa A Mukherji,A Dey; J.Indian Chem.Soc.,34,461 (1957)
1957MPa R Misra,S Pani; J.Indian Chem.Soc.,34,387;393 (1957)
1957PAb V Panova; Zh.Neorg.Khim.,2,330 (1957)
1957PCb P Papoff,M Caliumi,G Ferrari; Ricerca Sci.,27,A3,131 (1957)
1957PLa A Pamfilov,A Lopushasnkaya,E Gusel; Ukr.Khim.Zh.,23,297 (1957)
1957PPa R Patnaik,S Pani; J.Indian Chem.Soc.,34,19,619,673 (1957)
1957RSb C Reilly,R Schmid; J.Elisha Mitchell Sci.Soc. (1957)
1957SFb F Snavely,W Fernelius,B Douglas; J.Soc.Dyers and Colourists,73,491 (1957)
1957SYa K Suzuki,M Yasada,K Yamasaki; J.Phys.Chem.,61,229 (1957)
1957SYb K Suzuki,K Yamasaki; Naturwissenschaft,44,396 (1957)
1957TBb R Tichane,W Bennett; J.Am.Chem.Soc.,79,1293 (1957)
1956ARc E van Artsdalen; J.Phys.Chem.,60,172 (1956)
1956BDa W Bale,E Davies,C Monk; Trans.Faraday Society,52,816 (1956)
1956BHa E Burns,D Hume; J.Am.Chem.Soc.,78,3958 (1956)
1956CHa B Charreton; Bull.Soc.Chim.Fr.,323;327;337;347 (1956)
1956CHc V Chukhlantsev; Zh.Anal.Khim.,11,529 (1956)
1956CSb R Care,L Staveley; J.Chem.Soc.,4571 (1956)
1956GWc P Gray,T Waddington; Proc.Roy.Soc.(A),235,106 (1956)
1956IFa R Irving,W Fernelius; J.Phys.Chem.,60,1427 (1956)
1956KAa C Karlsson; Personal communication (1956)
1956KEa P Kivalo,A Ekman; Suomen Kem.,B29,139;189 (1956)
1956KIb P Kivalo; Suomen Kem.,B29,8 (1956)
1956KRa P Kivalo,A Ringbom; Suomen Kem.,B29,109 (1956)
1956LSa G Leonard,M Smith,D Hume; J.Phys.Chem.,60,1493 (1956)
1956MAa A Martell; Rec.Trav.Chim.,75,781 (1956)

1956PAa V Panova; Zh.Neorg.Khim.,1,422 (1956)
1956PJa R Pecsok,R Juvet; J.Am.Chem.Soc.,78,3967 (1956)
1956SGa G Schwarzenbach,R Gut; Helv.Chim.Acta,34,1589 (1956)
1956SRb B Sarma,P Ray; J.Indian Chem.Soc.,33,841 (1956)
1956TGb I Tananaev,M Glushkova,G Seifer; Zh.Neorg.Khim.,1,66 (1956)
1956TKa S Talipov,O Kutumova; Dokl.Akad.Nauk Uzbeksk.SSR,8,23 (1956)
1956YVb K Yatsimirskii,V Vasilev; Zh.Fiz.Khim.,30,28;901 (1956)
1955BPa A Biggs,H Parton,R Robinson; J.Am.Chem.Soc.,77,5844 (1955)
1955BPc A Biggs,M Panckhurst,H Parton; Trans.Faraday Society,51,802 (1955)
1955EMa J Evans,C Monk; Trans.Faraday Society,51,1244 (1955)
1955FRa E Felder,C Rescigno,C Radice; Gazz.Chim.Ital.,85,453 (1955)
1955HCb F Holmes,W Crimmin; J.Chem.Soc.,3467 (1955)
1955KIa P Kivalo; Suomen Kem.,B28,B155 (1955)
1955KOa P Kovalenko; S.O.N.I.Prim.O.V.Khim.Obshch.,1,12 (1955)
1955LMa N Li,R Manning; J.Am.Chem.Soc.,77,5225 (1955)
1955LUa P Lumme; Ann.Acad.Sci.Fennicae,68,7 (1955)
1955MAc R Mohanty,S Aditya; J.Indian Chem.Soc.,32,234;249 (1955)
1955MMa H Mackenzie,D Mellor; Australian J.Chem.,14,562 (1955)
1955NAa G Nancollas; J.Chem.Soc.,1458 (1955)
1955NUa R Nasanen,E Usitalo; Suomen Kem.,B28,17 (1955)
1955PAa A Paul; Thesis,Univ.California,Berkeley,UCRL-292 (1955)
1955PCa P Papoff,L Ciccoboni,M Caliumi; Gazz.Chim.Ital.,85,69 (1955)
1955PHa K Pan,T Hseu; J.Chin.Chem.Soc.(Taiwan),2,23 (1955)
1955PPa M Panckhurst,H Parton; Trans.Faraday Society,51,806 (1955)
1955SAa G Schwarzenbach,G Anderegg et al; Helv.Chim.Acta,38,1147 (1955)
1955SBa N Selivanova,R Boguslavskii; Zh.Fiz.Khim.,29,128 (1955)
1955SIa D Singh; J.Sci.Res.Benares Hindu Univ.,6,131 (1955)
1955SKa K Sone,P Krumholz,H Stammrich; J.Am.Chem.Soc.,77,777 (1955)
1955VLa A Vlcek; Collec.Czech.Chem.Commun.,20,400 (1955)
1954BFb B Bryant,W Fernelius; J.Am.Chem.Soc.,76,1696 (1954)
1954BFc B Bryant,W Fernelius; J.Am.Chem.Soc.,76,3783 (1954)
1954BFd B Bryant,W Fernelius; J.Am.Chem.Soc.,76,4864 (1954)
1954CFa R Charles,H Freiser; Anal.Chim.Acta,11,1;101 (1954)
1954CHa R Charles; J.Am.Chem.Soc.,76,5854 (1954)
1954EMa W Evans,C Monk; J.Chem.Soc.,550 (1954)
1954FAa J Faucherre; Bull.Soc.Chim.Fr.,128;253 (1954)
1954FSa W Feitknecht,M Sahli; Helv.Chim.Acta,37,1431 (1954)
1954GOa G Goward; Thesis,Princeton.Univ.Microf.9414 (1954)
1954JFa W Johnson,H Freiser; Anal.Chim.Acta,11,201 (1954)
1954NKa F Nelson,K Kraus; J.Am.Chem.Soc.,76,5916 (1954)
1954NUa R Nasanen,E Usitalo; Acta Chem.Scand.,8,112;835 (1954)
1954PSa T Pavlopoulous,H Strehlow; Z.Phys.Chem.,(Frankfurt),2,89 (1954)
1954SGa G Schwarzenbach,R Gut,G Anderegg; Helv.Chim.Acta,37,937 (1954)
1954YSa K Yatsimirskii,A Shutov; Zh.Fiz.Khim.,28,30 (1954)
1953APa S Aditya,B Prasad; J.Indian Chem.Soc.,30,633 (1953)
1953BFa B Bryant,W Fernelius,B Douglas; J.Am.Chem.Soc.,75,3784 (1953)
1953FSa F Frum,M Skoblina; Uch.Zapiski Gor'kov Gos.Univ.,24,135 (1953)
1953HMa V Hughes,A Martell; J.Phys.Chem.,57,694 (1953)
1953HSa H Hershenson,M Smith,D Hume; J.Am.Chem.Soc.,75,507 (1953)
1953NAb R Nasanen; Suomen Kem.,B26,2;11;37;67;69 (1953)

1953SUb S Suzuki; Sci.Rep.Res.Inst.Tohoku Univ.,A5,16;311 (1953)
1953UFb L Uitert,W Fernelius,B Douglas; J.Am.Chem.Soc.,75,2736;2739;457 (1953)
1953UFe L van Uitert,W Fernelius,B Douglas; J.Am.Chem.Soc.,75,457;2736;2739 (1953)
1953YSa K Yatsimirskii,A Shutov; Zh.Fiz.Khim.,27,782 (1953)
1952CCa S Chaberek,R Courtney,A Martell; J.Am.Chem.Soc.,74,5057 (1952)
1952CMc S Chaberek,A Martell; J.Am.Chem.Soc.,74,6228 (1952)
1952DAa N Das,S Aditya,B Prasad; J.Indian Chem.Soc.,29,169 (1952)
1952FCa H Freiser,R Charles,W Johnston; J.Am.Chem.Soc.,74,1383 (1952)
1952FRb H Freiser; Analyst,77,830 (1952)
1952GGc J Goates,M Gordon,N Faux; J.Am.Chem.Soc.,74,835 (1952)
1952JFa W Johnston,H Freiser; J.Am.Chem.Soc.,74,5239 (1952)
1952KFa I Korenman,F Frum,V Chebakova; Zh.Obshch.Khim.,22,1731 (1952)
1952LAb W Latimer; "Oxidation Potentials",Prentice Hall,NY (1952)
1952MPa A Martell,R Plumb; J.Phys.Chem.,56,993 (1952)
1952PEa D Perkins; Biochem.J.,51,487 (1952)
1952SCa J Schubert; J.Phys.Chem.,56,113 (1952)
1952SNa F Snavely; Inv.Coord.Arylazo Cmpds.,Penn.State Coll (1952)
1952SUa S Suzuki; J.Chem.Soc.Jpn.,73,150;153;278 (1952)
1952TAa C Tanford; J.Am.Chem.Soc.,74,211 (1952)
1952YAa K Yatsimirskii,A Astasheva; Zh.Fiz.Khim.,26,239 (1952)
1951CHa B Charreton; Compt.Rend.,233,1286 (1951)
1951DCa P Deschamps,B Charreton; Compt.Rend.,232,162 (1951)
1951MOa C Monk; Trans.Faraday Society,47,285;292/7;1233 (1951)
1951SFa G Schwarzenbach,E Freitag; Helv.Chim.Acta,34,1492;1503 (1951)
1951VPa A Vasilev,V Proukhina; Zh.Anal.Khim.,6,218 (1951)
1951YAb K Yatsimirskii; Zh.Fiz.Khim.,25,475 (1951)
1951ZHa F Zharovskii; Trudy An.Khim.Akad.Nauk SSSR,3,101 (1951)
1950CAa M Cavigli; Atti.Soc.Toscana Sci.Nat.(Pisa),A57,7;12 (1950)
1950HAa B Haldar; Curr.Sci.,19,244;283 (1950)
1950KKa J Koryta,I Kossler; Collec.Czech.Chem.Commun.,15,241 (1950)
1950KKb I Korshunov,Z Kresnyakova; Zh.Obshch.Khim.,20,1962 (1950)
1949GGa R Garrels,F Gucker; Chem.Revs.,44,117 (1949)
1949JAc J James; J.Am.Chem.Soc.,71,3243 (1949)
1949KOb I Korshunov,V Osipova; Zh.Obshch.Khim.,19,1816 (1949)
1949MMa L Maley,D Mellor; Australian J.Sci.Res.,A,2;92;579 (1949)
1949PEa K Pedersen; Acta Chem.Scand.,3,676 (1949)
1949RRa L Rogers,C Reynolds; J.Am.Chem.Soc.,71,2081 (1949)
1949TOb F Toropova; Zh.Anal.Khim.,4,337 (1949)
1948MMa D Mellor,E Maley; Nature,161,436 (1948)
1947GUa H Guiter; Bull.Soc.Chim.Fr.,269;272 (1947)
1947NGa J Norman,A Garrett; J.Am.Chem.Soc.,69,110 (1947)
1946MSa N Malyugina,M Shchennikova,I Korshunov; Zh.Obshch.Khim.,16,1573 (1946)
1946PSa B Purkayastha,R Sen-Sarma; J.Indian Chem.Soc.,23,31 (1946)
1946TMa I Tananaev,I Mizetskaya; Zh.Anal.Khim.,1,6 (1946)
1945NAa R Nasanen; Ann.Acad.Sci.Fennicae,13 (1945)
1945NAb R Nasanen; Suomen Kem.,B18,45 (1945)
1945PEa K Pedersen; Kgl.Danske Vid.Sels.Medd.,22,10;12 (1945)
1945SKa G Schwarzenbach,E Kampitsch,R Steiner; Helv.Chim.Acta,28,1133 (1945)
1944NAa R Nasanen; Suomen Kem.,B17,11;31 (1944)

1944NGa M Noble,A Garrett; J.Am.Chem.Soc.,66,231 (1944)
1942GNa A Garrett,M Noble,S Miller; J.Chem.Educ.,19,485 (1942)
1942KEa S Kety; J.Biol.Chem.,142,181 (1942)
1942KPa I Kolthoff,R Perlich,D Weiblen; J.Phys.Chem.,46,561 (1942)
1941IVa R Ivett,T de Vries; J.Am.Chem.Soc.,63,2821 (1941)
1941KLa I Kolthoff,J Lingane; "Polarography",Intersc.NY.p.268 (1941)
1941KRa R Keefer,H Reiber; J.Am.Chem.Soc.,63,689;3504 (1941)
1941LKa O Lanford,S Kiehl; J.Am.Chem.Soc.,63,667 (1941)
1940EBa S Edmonds,N Birnbaum; J.Am.Chem.Soc.,62,2367 (1940)
1940GOa R Golovatyi; Zh.Prikl.Khim.,13,586 (1940)
1940KAa A Kapustinskii; Dokl.Akad.Nauk SSSR,28,144 (1940)
1939GVa A Garrett,S Vellenga,C Fontana; J.Am.Chem.Soc., 61,367 (1939)
1939HHa M Haring,M Hatfield,P Zapponi; Trans.Electrochem.Soc.,75,473 (1939)
1938GUa E Guntelberg; Thesis,Copenhagen (1938)
1937CBa J Cranston,H Brown; J.Royal Tech.Coll.,Glasgow, 4,54 (1937)
1937FAa K Farago; Acta lit sci reg Univ.Hung Chem.,5,193 (1937)
1937KAa H Kato; J.Chem.Soc.Jpn.,58,972;977 (1937)
1936MHa F MacDougall,E Hoffman; J.Phys.Chem.,40,317 (1936)
1936RAa S Ravitz; J.Phys.Chem.,40,61 (1936)
1935HAa W Hamer; J.Am.Chem.Soc.,57,8;662 (1935)
1935HHa H Harned,W Hamer; J.Am.Chem.Soc.,57,27;33 (1935)
1935KAa K Kelley,C Anderson; Bur.Mines,Bull.,384 (1935)
1935ZRa H Zeumer,W Roth; Z.Phys.Chem.,A173,365 (1935)
1934ABa L Andrews,D Brown; J.Am.Chem.Soc.,56,388 (1934)
1934LEa A Lebettre; J.Chim.Phys.,31,348 (1934)
1934RIa A Ringbom; Acta Acad.Aboensis,Math.Phys.,85 (1934)
1934SCa J Shrawder,I Cowperthwaite; J.Am.Chem.Soc.,56,2340 (1934)
1933JEa K Jellinek,F Enke; Stuttgart,"Lehrbuch Phys.Chemie",2nd Ed (1933)
1932CAa W Carmody; J.Am.Chem.Soc.,54,210 (1932)
1932CSa J Cann,R Sumner; J.Phys.Chem.,36,2615 (1932)
1932JPa M Jowett,H Price; Trans.Faraday Society,28,668 (1932)
1931CMa I Cowperthwaite,V la Mer; J.Am.Chem.Soc.,53,4333 (1931)
1931FLa H Fromherz,K Lih; Z.Phys.Chem.,A153,321;376 (1931)
1930RDa E Righellato,C Davies; Trans.Faraday Society,26,592 (1930)
1929LAa W Lange; Ber.Buns.Phys.Chem.,62,793 (1929)
1929MJa H Millet,M Jowett; J.Am.Chem.Soc.,51,997 (1929)
1929TOa H Topelmann; J.Prakt.Chem.,121,320 (1929)
1928RSa M Randall,H Spencer; J.Am.Chem.Soc.,50,1572 (1928)
1926BUa L Burrage; J.Chem.Soc.,1703 (1926)
1926GHa W Geilmann,R Holtje; Z.Anorg.Chem.,152,59 (1926)
1923BOa W Bottger; Landolt-Bornstein,"Tabellen",II,1180/1/5 (1923)
1923HEa J Heyrovsky; Trans.Faraday Society,19,692 (1923)
1923SWa D Smith,H Woods; J.Am.Chem.Soc.,45,2632 (1923)
1922ARa M Applebey,R Reid; J.Chem.Soc.,121,2129 (1922)
1922GLa S Glasstone; J.Chem.Soc.,121,1456;1469 (1922)
1922GRa G Grube; Z.Elektrochem.,28,273 (1922)
1922JCa K Jellinek,J Czerwinski; Z.Phys.Chem.,102,438 (1922)
1921GLa S Glasstone; J.Chem.Soc.,119,1689;1914 (1921)
1921TRa G Trumpler; Z.Phys.Chem.,99,9 (1921)
1913APa F Auerbach,H Pick; Arb.Kaiser Gesundh.,45,113 (1913)

1913KUa C Kullgren; Z.Phys.Chem.,85,466 (1913)
1911BEa K Beck; Z.Elektrochem.,17,843 (1911)
1910BSa K Beck,P Stegmuller; Arb.Kaiser Gesundh.,34,446 (1910)
1910JAa A Jacques; Trans.Faraday Society,5,225 (1910)
1910WOa J Wood; J.Chem.Soc.,97,878 (1910)
1909BZa L Bruner,J von Zawidzky; Z.Anorg.Chem.,65,136 (1909)
1908KOa F Kohlrausch; Z.Phys.Chem.,64,129 (1908)
1908LEa W Lewis; Diss.Breslau (1908)
1907PLa M Pleissner; Arb.Kaiser Gesundh.,26,384 (1907)
1904EUa H von Euler; Ber.Buns.Phys.Chem.,37,1704 (1904)
1903BOb W Bottger; Z.Phys.Chem.,46,521 (1903)
1901ENa C von Ende; Z.Anorg.Chem.,26,129 (1901)
1898BEa I Bernfeld; Z.Phys.Chem.,25,46 (1898)

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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