SC-Database
Software version = 5.81 Data version = 4.62
Experiment list contains 1383 experiments for
 (no ligands specified)
 Metal : Nd+++
 (no references specified)
 (no experimental details specified)

****

e- HL Electron (442)
Electron;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	oth	none	25°C	0.0	U		1974JOb (714)		1
							K(Nd+3e=Nd(s))=-118.2(-2.33V)		
							K(Nd+e=Nd(II))=-47(-2.8V)		

Method: Literature evaluated data

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	EMF	non-aq	700°C	100%	U		1971UBa (715)		2
							K=9.25-7590/T		

Medium: (Li,K)Cl; K: 2Nd + Nd(s)=3Nd++; temperature:700-850 C

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	oth	none	25°C	0.0	U		1952LAb (716)		3
							K(Nd+3e)=-123.3(-2440 mV)		
Nd+++	oth	none	25°C	0.0	U		1952SMb (717)		4
							K(Nd+3e)=-113.9(-2246 mV)		

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	sol	none	25°C	0.0	C		1992FIa (1154)		5
							Kso(NdAsO4)=-21.86		

Equilibrium monitored by EDTA and iodine titrations.

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	cal	mixed	25°C	50%	C	IH	K1=1.5 B2= 2.40	1999IUa (2151)	6
							B3=2.9		

Medium: 0.5 mole fraction DMA/DMF, 0.2 M Me4NCl. DH(K1)=7 kJ mol-1,
DH(B2)=18, DH(B3)=28. Also data for 0.6-0.85 mole fraction.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	cal	non-aq	25°C	100%	U	H	K1=2.06	1982AVa (2152)	7

Medium: N,N-dimethylacetamide. DH(K1)=33.6 kJ mol-1

```
--------------------------------------------------------------------------------
Nd+++      sp  non-aq 25°C 100%  U        K1=0.25        1974KBb  (2153)   8
Medium: propanol, 1 M LiClO4. K1=0 to 0.5
--------------------------------------------------------------------------------
Nd+++      sp  alc/w  25°C  50%  U        K1=0.19        1973KPe  (2154)   9
                                         K1in=-0.9
Medium: 50% w/w MeOH/H2O, 3 M LiClO4
--------------------------------------------------------------------------------
Nd+++      sp  oth/un 22°C  var  U        K1=-0.81  B2=-4.08  1965MSf  (2155)  10
Medium:LiBr var
********************************************************************************
CO3--                  H2L    Carbonate        CAS 465-79-6  (268)
Carbonate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.70M C        K1=5.76        2004LBb  (3294)  11
                                         K(Nd+HCO3=NdHCO3)=1.23
Medium: 0.70 m NaClO4. Calculated for I=0, K1=7.28, B2=12.17,
K(Nd+HCO3=NdHCO3)=2.28, K(Nd+HL=NdL+H)=-3.05, K(Nd+2HL=NdL2+2H)=-8.49
--------------------------------------------------------------------------------
Nd+++      dis NaClO4 25°C 0.70M C  I     K1=5.55   B2= 9.65  1998LBb  (3295)  12
Method: H2O/tributylphosphate distribution and ICP-mass spectrometry.
Values calculated for I=0.0 M, K1=7.53, B2=12.73.
--------------------------------------------------------------------------------
Nd+++      sol none   25°C  0.0  C                      1986FMa  (3296)  13
                                         Kso(Nd2(CO3)3)=-34.10
--------------------------------------------------------------------------------
Nd+++      sol none   25°C  0.0  C                      1986HMa  (3297)  14
                                         Kso(Nd2(CO3)3)=-34.10
Method: spectrophotometry.
--------------------------------------------------------------------------------
Nd+++      dis oth/un 20°C  2.5M C                      1979DBb  (3298)  15
                                         B4=14.03
Media: 2.5 M (NH4)2NO3/hexane. Analysis by NAA. By competition with edta;
K1(Nd(edta))=16.76 recalculated for I=2.5 from J.Am.Chem.Soc.,75 1953,4196
--------------------------------------------------------------------------------
Nd+++      sol oth/un 25°C  var  U  I M              1964FDa  (3299)  16
                                         B4=11.17
                                         Kso(Nd2L3(H2O)3)=-26.75
In 7 M KCl: K(NdL4+F=NdL3F+L)=-0.36, K(NdL4+2F=NdLF2+3L)=-0.60
--------------------------------------------------------------------------------
Nd+++      ix  oth/un 25°C  var  U  I               1964SMc  (3300)  17
                                         K3=1.89
Medium: K2CO3. In KHCO3: K3=2.71, K4=1.80, K5K6=2.68
--------------------------------------------------------------------------------
Nd+++      sp  KCl      ?  5.35M U                  1961PKa  (3301)  18
                                         B4=1.08
********************************************************************************
C6N6Co---              H3L    Cyanocobaltate     (5470)
```

Hexacyanocobaltate; [Co(CN)6]---

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	con	diox/w	25°C	10%	U	I	K1=3.95		1960ATb (3505)	19

Medium: 10% w/w dioxan/H2O; K1=3.68(0%), 4.31(20%)

****

C6N6Fe--- H3L Ferricyanide (2491)

Hexacyanoferrate (III); Fe(III)(CN)6---

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	con	none	25°C	0.00	M		K1=3.82		1972FIa (3680)	20
Nd+++	cal	none	25°C	0.00	M	H	K1=3.77		1972SCd (3681)	21

DH(K1)=3.4 kJ mol-1, DS=83.3 J K-1 mol-1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	con	oth/un	25°C	0.0	U		K1=3.74		1963DKb (3682)	22

****

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

Chloride;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	cal	non-aq	25°C	100%	C	HM	K1=3.28		2002KNc (5280)	23
							B(Nd(phen)Cl)=4.80			
							B(Nd(phen)Cl2)=7.68			
							B(Nd(phen)Cl3)=9.14			

Medium: DMF, 0.20 M Et4NClO4. DH(K1)=13.2 kJ mol-1, DH(Nd(phen)Cl)=2.5, DH(Nd(phen)Cl2)=13.4, DH(Nd(phen)Cl3)=24.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	sp	NaCl	100°C	1.7M	C	T	K1=1.429		1999SKa (5281)	24

Also for 150 C K1=1.670; for 200 C K1=1.973; for 250 C K1=2.256

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	dis	NaCl	25°C	1.0M	C		K1=-0.06		1997HTb (5282)	25

Method: by solvent extraction from 1.0 M NaCl into CHCl3, 0.1 M 1,1,1-trifluoro-4-(2-thienyl)-2,4-pentanedione.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	sol	none	25°C	0.0	M	T	K1=0.06	B2=-0.38	1996GWa (5283)	26

Method: solubility of AgCl in NaCl/HCl solutions (0.03-1.0 M) containing NdCl3. Data for 40-300C. Extended D-H equation. At 100 C, K1=0.66, B2=0.13

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	cal	non-aq	25°C	100%	U	H	K1=3.26	B2=5.27	1991ITa (5284)	27
							K3=1.35			
							K4=0.63			

Medium: DMF, 0.2 M Et4NClO4. DH(K1)=13.2 kJ mol-1, DH(K2)=13.2, DH(K3)=20 DH(K4)=63. DS(K1)=107, DS(K2)=83, DS(K3)=94 J K-1 mol-1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	sol	NaClO4	25°C	?	U		K1=0.40		1982MAa (5285)	28

```
Nd+++      cal non-aq 25°C 100%  U        K1=1.76        1980VCa  (5286)  29
Medium: dimethylacetamide
-------------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 0.10M U        K1=7.08   B2=11.69  1977IMa  (5287)  30
                                          K3=3.69
-------------------------------------------------------------------------------
Nd+++      sp  non-aq 25°C 100%  U                            1974KBb  (5288)  31
                                          K1=0.5 to 1.2
Medium: propanol, 1 M LiClO4
-------------------------------------------------------------------------------
Nd+++      sp  non-aq 25°C 100%  U  I     K1=1.8         1973KBd  (5289)  32
Medium: propanol, 0.8 M LiCl. K1=1.6(I=1.9), 0.7(I=6.6)
-------------------------------------------------------------------------------
Nd+++      sp  alc/w  25°C  90%  U  I     K1=-0.5        1972DLa  (5290)  33
Medium: 90% w/w MeOH/H2O, 2 M LiClO4. K1=-0.05(95%). 20-25 C
-------------------------------------------------------------------------------
Nd+++      sp  non-aq   ?  100%  U    M                   1971DZa  (5291)  34
                                          K(NdA+Cl)=1.0
Medium: MeOH, 0.5 M LiClO4. HA=acetylacetone
-------------------------------------------------------------------------------
Nd+++      sp  alc/w  25°C  50%  U  I     K1=0.49        1971KBf  (5292)  35
                                          K1in=-0.8
Medium: 50% w/w MeOH/H2O, 3 M LiClO4. K1=-0.04(0%); K1=0.92, K1in=-0.1(100%)
-------------------------------------------------------------------------------
Nd+++      sp  alc/w  25°C  50%  U  I     K1=0.50        1971KBg  (5293)  36
                                          Kin=-0.59
Medium: 50% v/v EtOH/H2O, 3 M LiClO4. K1=0.92, K1in=-0.07(90%)
-------------------------------------------------------------------------------
Nd+++      sp  non-aq   ?  100%  U        K1=1.8    B2=2.0    1971ZLa  (5294)  37
Medium: MeOH, 0.5 M LiClO4
-------------------------------------------------------------------------------
Nd+++      sp  none   25°C  0.0  U        K1=-2.08       1970KBe  (5295)  38
                                          K1in=-2.9
-------------------------------------------------------------------------------
Nd+++      sol KCl    25°C  var  U                       1968SYb  (5296)  39
                                          K1out=-0.1
Medium: HCl. Spectrophotometry also used
-------------------------------------------------------------------------------
Nd+++      sp  alc/w    ?   80%  U        K1=1.39        1967RKb  (5297)  40
Medium:MeOH
-------------------------------------------------------------------------------
Nd+++      ISE NaClO4 25°C  1.0M U        K1=0.21        1965GSb  (5298)  41
-------------------------------------------------------------------------------
Nd+++      sp  KCl    25°C  var  U        K1=-2.62       1964MSc  (5299)  42
Medium:HCl var
*******************************************************************************
ClO4-                  HL    Perchlorate      CAS 7001-90-3  (287)
Perchlorate;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
```

```
--------------------------------------------------------------------------------
Nd+++      sol NaClO4 25°C  var  U        K1=-1.77       1968SYb  (6351)  43
Medium: HClO4
********************************************************************************
F-                      HL    Fluoride         CAS 7644-39-3  (201)
Fluoride;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      ix  oth/un 25°C 0.02M C T H    K1=3.29   B2= 5.66  2004LMa  (7046)  44
Medium: 0.025 M HNO3. Applying Pitzer parameters: at I=0, K1=8.82.
Data for 5 to 45 C. DH(K1)=9.4 kJ mol-1, DH(B2)=20.2.
--------------------------------------------------------------------------------
Nd+++      ISE NaClO4 25°C  0.0  C  I     K1=3.82        2000LBa  (7047)  45
Method: Fluoride ISE. Values calc. from data for I=0.015-0.70 M NaClO4.
At I=0.70 M, K1=2.898.
--------------------------------------------------------------------------------
Nd+++      ix  KNO3   25°C 0.02M C        K1=3.27   B2= 5.59  1999SBc  (7048)  46
Medium: 0.025 M HNO3. Additional method: ICP-MS.
Assumed K1(HF) = 3.03, derived from literature values.
--------------------------------------------------------------------------------
Nd+++      ISE none   25°C  0.0  C   H    K1=2.79   B2=6.61   1989MJa  (7049)  47
                                          Kso=-14.9
Also by conductivity and radiometry. DH(Kso)=43.4 kJ mol-1; DS=-141.5.
--------------------------------------------------------------------------------
Nd+++      ISE R4N.X  25°C 0.50M C        K1=2.79   B2=6.61   1989MJb  (7050)  48
--------------------------------------------------------------------------------
Nd+++      cal NaClO4 25°C 1.00M C   H                  1988GBa  (7051)  49
DH(K1)=13.5 kJ mol-1; DS(K1)= 104 J mol-1 K-1
--------------------------------------------------------------------------------
Nd+++      ISE NaCl   25°C 1.00M C  I     K1=2.699       1985BBb  (7052)  50
0.5 M NaCl: K1=2.826
--------------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 1.00M U    M                  1981KTb  (7053)  51
                                          K(NdEDTA+F)=1.52
                                          K(Nd(EDTA)F+F)=0.70
--------------------------------------------------------------------------------
Nd+++      gl  NaCl   25°C 1.00M U        K1=2.69   B2=5.11   1979BHa  (7054)  52
--------------------------------------------------------------------------------
Nd+++      EMF NaClO4 25°C  1.0M U   H    K1=3.09        1967WCa  (7055)  53
By calorimetry: DH(K1)=28.5 kJ mol-1, DS=154.2 J K-1 mol-1
********************************************************************************
H2O                      L    Water            CAS 7732-18-5  (6115)
Water
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      sp  alc/w    ?  100%  U    M                  1967RKc  (7606)  54
                                          K(NdS4L2+2L=NdS2L4+2S)=1.52
                                          K(NdS2L4+2L=NdL6+2S)=1.15
```

Medium(S): MeOH

Nd+++ sp alc/w 25°C 100% U K1=0.23 1953BJa (7607) 55

Medium: MeOH. N=6. Kav=-0.48=average constant, Kn=Kav(N-n+1)/n, N=max n

****

H2PO2- HL Hypophosphite CAS 6303-21-5 (6304)

Hypophosphite;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	sp	oth/un	?	var	U		K1=1.10	1970PLe (7650)	56

****

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

Iodate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	sol	oth/un	25°C	0.0	U			1966FPb (8538)	57
							Kso=-10.92		

****

IO4- HL Periodate CAS 13444-71-8 (6063)

Periodate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	sol	oth/un	25°C	dil	U			1974LOa (8611)	58
							Kso(Nd(H2IO6)(H2O)3)=-10.82		

****

MoO4-- H2L Molybdate (443)

Molybdate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	sp	oth/un	25°C	?	U	M		1997STa (8742)	59
							K(Nd+H2L=NdL+2H)=-1.3		

Ligand: nano-Molibdenomanganate, MnMo9O32------

Nd+++	con	oth/un	25°C	.001M	U		K1=4.74	1968DKc (8743)	60

****

Mo12O42U-------- H8L (2922)

Uranium-12-molybdate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	oth/un	20°C	0.10M	U			1989SBb (8778)	61
							B(NdHL)=8.28		
							B(Nd2L)=8.06		

****

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

Hydroxylamine; NH2.OH

```
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Nd+++      vlt KCl    25°C  1.0M C T H    K1=3.87        1983KMc  (9269)  62
Method: polarography. Also data for 35 C. DH and DS values.
Medium pH 2.4.
*******************************************************************************
NO3-                   HL    Nitrate          CAS 7697-37-2  (288)
Nitrate;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Nd+++      cal NaClO4 25°C  2.0M C  IH    K1=-0.19       1998BMb  (9797)  63
DH(K1)=1.7 kJ mol-1. From Pitzer extrapolation to I=0.0, K1=0.67,
DH(K1)=-0.5 kJ mol-1
-------------------------------------------------------------------------------
Nd+++      cal NaNO3  25°C  2.0M C   H    K1=-0.12       1998BMc  (9798)  64
Method: By competition with xylitol.
-------------------------------------------------------------------------------
Nd+++      cal NaClO4 25°C  2.0M C  IH    K1=-0.19       1996BMc  (9799)  65
Data for 0.5-2.0 M NaClO4.  DH(K1)=1.7 kJ mol-1.
At I=0.0, K1=-0.22,  DH(K1)=-1.2 kJ mol-1.
-------------------------------------------------------------------------------
Nd+++      dis none   25°C  0.0  U        K1=2.27        1992MSb  (9800)  66
-------------------------------------------------------------------------------
Nd+++      sp  alc/w  25°C 0.64M U TI     K1=1.79   B2=2.40   1990SBd  (9801)  67
Medium: MeOH/H2O, MeOH mole fraction 0.64, electrolyte ClO4. Data also at
15, 20, and 37 C, and at several MeOH/H2O ratios.
-------------------------------------------------------------------------------
Nd+++      dis R4N.X  25°C  var  C        K1=0.25   B2= 0.36  1986MSd  (9802)  68
Method: extraction from 0.1-2.74 M NH4NO3 into tri-n-butylphosphate.
-------------------------------------------------------------------------------
Nd+++      sp  non-aq 25°C 100%  U        K1=0.7         1974KBb  (9803)  69
Medium: PrOH, 1 M LiClO4. K1=0.5 to 0.9
-------------------------------------------------------------------------------
Nd+++      sp  non-aq  0°C 100%  U                       1971PEi  (9804)  70
                                        B5=7.48
Medium:Me2CO
-------------------------------------------------------------------------------
Nd+++      sp  KNO3     ?   var  U                       1970KSf  (9805)  71
                                       K(Nd+3L+HL)=-1.67
                                       K(NdL3HL+2HL)=-1.46
-------------------------------------------------------------------------------
Nd+++      sp  NaClO4       4.0M U        K1=0.06        1969BTe  (9806)  72
-------------------------------------------------------------------------------
Nd+++      oth oth/un 25°C  0.0  U        K1=1.2         1969GEc  (9807)  73
                                       K1out=0.8
Method: ultrasonic absorption
-------------------------------------------------------------------------------
Nd+++      dis NaClO4 25°C  1.0M U        K1=0.24        1969MKi  (9808)  74
```

```
--------------------------------------------------------------------------------
Nd+++      sp  NaClO4 20°C 4.20M U        K1=-0.11       1966CKc  (9809)  75
--------------------------------------------------------------------------------
Nd+++      dis NaClO4   ?   3.0M U        K1=0.52   B2=0.66   1962SKc  (9810)  76
Medium: HClO4. Kd(Nd+3L+3TBP(CCl4)=NdL3(TBP)3(CCl4))=0
--------------------------------------------------------------------------------
Nd+++      sp  NaClO4 25°C  1.0M U  I     K1=0.02        1961KRb  (9811)  77
K1=-0.06(I=4.15), -0.05(I=2),  0.18(I=0.35)
********************************************************************************
N2H4                    L    Hydrazine        CAS 302-01-2  (2117)
Hydrazine; H2N.NH2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      vlt KCl    25°C  1.0M C T H    K1=4.37        1983KMc (10084)  78
Method: polarography. Also data for 35 C. DH and DS values.
Medium pH 2.4.
********************************************************************************
N3-                     HL    Azide            CAS 7782-79-8  (441)
Azide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      sp  NaClO4 25°C  2.0M C        K1=-0.30       1995AAc (10245)  79
--------------------------------------------------------------------------------
Nd+++      dis none   25°C  0.0  U        K1=0.40   B2=0.60   1983MCb (10246)  80
                                        B3=0.70
--------------------------------------------------------------------------------
Nd+++      sp  NaClO4 25°C  1.0M C        K1=0.58        1982GAb (10247)  81
Method: competition with Co(II).
--------------------------------------------------------------------------------
Nd+++      sp  NaClO4 25°C  2.0M U        K1=3.70        1975EAb (10248)  82
********************************************************************************
OH-                     HL    Hydroxide          (57)
Hydroxide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C  0.0  C  IH                    2000KBa (11779)  83
                                        *K1=-8.18
In 0.7 M NaClO4, *K1=-8.49. DH(*K1)=41 kJ mol-1.
--------------------------------------------------------------------------------
Nd+++      gl  NaCl   25°C 0.10M U  I                     1999FBa (11780)  84
                                        *B(1,3)=-23.54
In 0.1 M Me4NCl, *B(1,3)=-23.88.
--------------------------------------------------------------------------------
Nd+++      sol oth/un 22°C 0.01M C                        1993MYb (11781)  85
                                        *Kso(Nd(OH)3)=16.0
                                        *K1=-7.6
                                        *B2=-14.4
```

```
                                        *B3,-24.9
-------------------------------------------------------------------------------
Nd+++      gl  NaNO3  25°C  2.0M C                      1990LSc (11782)  86
                                        *K1=-9.69
                                        *B(2,2)=-15.69
-------------------------------------------------------------------------------
Nd+++      gl  NaClO4 60°C 3.00M C                      1989CPc (11783)  87
                                        *B(1,1)=-8.96
                                        *B(2,2)=-13.73
                                        *B(6,12)=-72.9
                                        *B(6,8)=-50.0
Medium: LiClO4
-------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 1.00M C                      1984KDa (11784)  88
                                        *B1=-8.1
                                        *B2=-16.2
                                        *B3=-24.3
                                        *B(2,2)=-11.6, *Kso=12.4
-------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 3.00M U                      1973BLd (11785)  89
                                        *K1=-9.4
                                        *B(2,2)=-13.93
-------------------------------------------------------------------------------
Nd+++      EMF alc/w  20°C  25%  U                      1973SPe (11786)  90
                                        *K1(NdA+H2O=NdAOH+H)=-7.35
Medium: ca.25 to 35% w/w MeOH or EtOH/H2O. H3A=NTA
-------------------------------------------------------------------------------
Nd+++      dis NaClO4   ?  0.10M U                      1971GDb (11787)  91
                                        *K1=-7.0
Medium: LiClO4
-------------------------------------------------------------------------------
Nd+++      vlt none   25°C 0.00  U                      1970BKd (11788)  92
                                        Kso(Nd(OH)3(s)=Nd+3OH)=-25.23
-------------------------------------------------------------------------------
Nd+++      gl  none   20°C  0.0  M                      1967AKe (11789)  93
                                        Kso=-23.92
-------------------------------------------------------------------------------
Nd+++      oth oth/un  rt   10%  U                      1967PBb (11790)  94
                                        Kso=-27.1
                                        K(NdL3(s)=NdL3)=-5.1
Medium: 10% sea water.  Method: Tyndall scattering
-------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.30M U                      1966FKa (11791)  95
                                        *K1=-8.43
-------------------------------------------------------------------------------
Nd+++      oth oth/un 20°C  dil  U                      1966OPa (11792)  96
                                        Kso=-23.9
-------------------------------------------------------------------------------
Nd+++      gl  none   25°C  0.0  M                      1963AKb (11793)  97
                                        Kso=-23.89
```

Using H electrode: Kso=-23.26

Nd+++	EMF	NaClO4	25°C	3.0M	U		1956TGa (11794)	98
						*K1=-8.5		

Method: quinhydrone electrode

Nd+++	sol	none	25°C	0.0	U		1956TGa (11795)	99
						*Kso=18.94		
						Kso(Nd(OH)3)=-23.06		

*Kso: K(Nd(OH)3(s)+3H=Nd+3H2O)

Nd+++	gl	oth/un	25°C	var	U		1951MFb (11796)	100
						Kso(Nd(OH)3)=-21.49		

Nd+++	gl	oth/un	25°C	var	U		1944MKa (11797)	101
						Kso(Nd(OH)3)=-20.7		

Nd+++	sol	oth/un	100°C	var	U		1932ENa (11798)	102
						Kso=1.67 + y		

Kso: K(Nd(OH)3(s)=Nd+3OH); y=Kso for Y+++

****

O2-- H2L Peroxide CAS 7772-84-1 (2813)

Peroxide; -O.O-

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	NaNO3	25°C	0.10M	C		2003MYd (12689)		103

K(4Nd+4H2O2=Nd4(O2)2(O2H)2(OH)4+10H)=-46.2,
K(4Nd+4H2O2=Nd4(O2)4(OH)4+12H)=-59.9. Also spectrophotometric values.

****

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

Phosphate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	sol	none	25°C	0.0	M			1997LBd (13264)	104
							Kso(NdPO4)=-26.20		

Calculated from data for 0.10 M HClO4 solution.

Nd+++	gl	NaClO4	25°C	0.10M	M	M	1995HKc (13265)	105
							K(Nd(nta)+HL)=11.5	
							K(Nd(edta)+HL)=5.1	

Nd+++	sol	oth/un	25°C	0.0	C	I	1993FKb (13266)	106
							Kso(NdPO4)=-27.47	

In synthetic seawater, Ks(NdPO4)=-24.96.

Nd+++	sol	none	25°C	0.0	C		1991FBa (13267)	107
							Kso(NdPO4)=-25.95	

```
Nd+++      sol NaClO4 25°C  0.0  C                          1985JBa (13268) 108
                                        Kso(NdPO4.xH2O)=ca.-25.8
Disolution of NdPO4.xH2O in 0.02-0.004  M HNO3. Calculated for I=0 M.
**************************************************************************
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
--------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M M    M                    1995HKc (13634) 109
                                        K(Nd(edta)+HL)=4.5
--------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 0.50M U                         1989APd (13635) 110
                                        K(Nd+H2L)=3.75
--------------------------------------------------------------------------
Nd+++      kin oth/un 25°C  0.0  U        B2=19.98         1967SSo (13636) 111
--------------------------------------------------------------------------
Nd+++      sp  oth/un 25°C  0.0  U        K1=15.0          1967SSp (13637) 112
--------------------------------------------------------------------------
Nd+++      sp  NaClO4 25°C 0.10M U        K1=15.0          1967SSq (13638) 113
**************************************************************************
P2W17O61----------           Polytungstate      (2102)
alpha-Heterodiphospho-polytungstate (usually alpha1 isomer)
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Nd+++      sp  NaClO4 25°C  1.0M C        K1=6.75          2003VCa (13727) 114
Method: laser-induced fluorescence spectroscopy for Eu+++ as competing ion
For P2W18O62, K1=2.86.
--------------------------------------------------------------------------
Nd+++      cal NaClO4 25°C  1.0M C   H                    2002VCa (13728) 115
DH(K1)=-11.14 kJ mol-1, DS(K1)=91.9 J K-1 mol-1.
--------------------------------------------------------------------------
Nd+++      cal NaClO4 25°C  1.0M C   H    K1=3.23         2002VCa (13729) 116
DH(K1)=-1.05 kJ mol-1, DS(K1)=58.3 J K-1 mol-1.
By entropy titration: DH(K1)=-1.20 KJ mol-1, DS(K1)=63.11 J K-1 mol-1.
**************************************************************************
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
--------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M M    M                    1995HKc (13890) 117
                                        K(Nd(nta)+HL)=7.3
                                        K(Nd(edta)+HL)=3.9
--------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.10M U T H    B2=8.5           1974KRa (13891) 118
                                        K(Nd+2HL)=6.4
K(Nd+2HL)=6.8 and B2=8.6 (35 C), K(Nd+2HL)=6.3 and B2=8.3 (45 C)
DH(Nd+2HL)=-11 kJ mol-1; DH(B2)=-19
```

```
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 30°C 0.30M U        K1=7.15        1963KUa (13892) 119
********************************************************************************
ReO4-                  HL    Perrhenate         (2581)
Rhenate(VII), Perrhenate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      sp  oth/un   ?        U        K1=1.22   B2=1.37   1969POa (14106) 120
********************************************************************************
S--                    H2L    Sulfide          CAS 7783-06-4  (705)
Sulfide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      oth none   25°C    0  U                         1988LIa (14424) 121
                                          Kso(Nd2S3)=-14.2
                                          *Kso(Nd2S3)=37.8
Derived from thermodynamic data and K(H+S=HS)=17.3.
********************************************************************************
SCN-                   HL    Thiocyanate      CAS 463-56-9  (106)
Thiocyanate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      dis oth/un 25°C  1.0M C        K1=0.43        1997HTb (15187) 122
Method: by solvent extraction from 1.0 M NaSCN into CHCl3, 0.1 M
1,1,1-trifluoro-4-(2-thienyl)-2,4-pentanedione.
--------------------------------------------------------------------------------
Nd+++      cal non-aq 25°C 100%  U   H    K1=1.8    B2=3.0    1992TIa (15188) 123
                                          K3=0.7
Medium: DMF, 0.2 M R4NX. DH(K1)=8.6 kJ mol-1, DH(B2)=6, DH(B3)=10
--------------------------------------------------------------------------------
Nd+++      sp  NaClO4   ?  1.00M C  I     K1=0.33   B2=0.41   1991SMb (15189) 124
--------------------------------------------------------------------------------
Nd+++      dis NaClO4 25°C  1.0M U T H  T K1=0.81   B2=0.92   1965CKb (15190) 125
K1(40 C)=0.61, K1(55 C)=0.47. DH(K1)=-22.9 kJ mol-1, DS=-61 J K-1 mol-1
--------------------------------------------------------------------------------
Nd+++      sp  NaClO4 20°C 0.60M U      T K1=-0.2        1964KSe (15191) 126
********************************************************************************
SO4--                  H2L    Sulfate          CAS 7664-93-9  (15)
Sulfate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      sol oth/un 25°C 0.66M C        K1=1.93        2004SBb (16397) 127
Method: solubility of BaSO4 in 0.117 m NdCl3 solution.
Calculated for I=0, K1=3.60.
--------------------------------------------------------------------------------
Nd+++      cal none   25°C  0.0  U   H                  1974POa (16398) 128
```

DH(K1)=20.0 kJ mol-1

Nd+++ con oth/un 25°C 0.0 U K1=3.68 1973FPb (16399) 129

Nd+++ oth none 25°C 0.0 U K1=3.64 1973FPb (16400) 130
K1in=0.77

Method: ultrasonic absorption

Nd+++ kin none 25°C 0.0 U K1=3.64 1973RSb (16401) 131

Nd+++ cal oth/un 25°C 0.0 U H 1969FPa (16402) 132
DH(K1)=17.4 kJ mol-1

Nd+++ cal oth/un 25°C 0.0 U H K1=3.43 B2=5.17 1969IEa (16403) 133
DH(K1)=15.1 kJ mol-1, DH(K2)=6.7; DS(K1)=116.2 J K-1 mol-1, DS(K2)=56.0

Nd+++ ISE NaClO4 25°C 2.0M U H K1=1.26 B2=1.79 1967CCd (16404) 134
By calorimetry: DH(K1)=17.5 kJ mol-1, DS=82.8 J K-1 mol-1

Nd+++ sol oth/un 20°C 0.0 U K1=2.92 1954KOb (16405) 135

Nd+++ con oth/un 25°C 0.0 U K1=3.64 1954SJa (16406) 136

****

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

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

---

Nd+++ con oth/un 32°C var U 1950DUa (16884) 137
B(Nd2L3)=11.26

****

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

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

---

Nd+++ gl KCl 25°C 0.50M U 1989APd (18289) 138
K(Nd+H2L)=5.06

****

C2H2O3 HL Glyoxylic acid CAS 298-12-4 (1142)
Glyoxylic acid; OHC.COOH

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

---

Nd+++ gl NaClO4 20°C 0.10M U K1=2.48 B2=4.48 1964PSd (18426) 139
K3=1.3

Nd+++ sp oth/un ? ? U K1=6.8 1957VIb (18427) 140

****

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
Nd+++	ix	R4N.X	25°C	0.05M	C		K1=5.39 K(Nd+HL)=2.16	B2= 9.64	2001SBf (18985)	141
Medium: 0.05 M NH4NO3. At I=0, K1=6.31, B2=10.82.										
Nd+++	gl	KCl	25°C	1.0M	U	M			1988KTa (18986)	142
							K(Nd(edta)+L)=3.00			
Nd+++	gl	KNO3	35°C	0.10M	U	M	K1=6.45 B(NdL(cytidine))=9.89		1986RMb (18987)	143
Nd+++	sp	oth/un	?	?	U		K1=11.9		1957VIb (18988)	144
Nd+++	sol	oth/un	25°C	0.0	U		K1=7.21 K3>1.96	B2=11.51	1951CMb (18989)	145

****

C2H3N3S2 HL CAS 2349-67-9 (6245)

2-Amino-5-mercapto-1,3,4-thiadiazole;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	NaClO4	25°C	0.10M	U	T H	K1=6.42 K3=4.20	B2=11.62	1983SSb (19256)	146

****

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
Nd+++	gl	NaClO4	45°C	2.0M	C	T H	K1=2.05 B3=4.36	B2= 3.40	2001ZDa (20066)	147
By calorimetry: DH(K1)=9.1 kJ mol-1, DS(K1)=69 J K-1 mol-1; DH(B2)=17.5, DS(B2)=122; DH(B3)=23.6, DS(B3)=163. At 70 C: K1=2.24, B2=3.65, B3=4.71.										
Nd+++	EMF	NaCl	25°C	0.10M	C	T H	K1=2.10	B2= 3.76	2000WWa (20067)	148
Pt/H2 electrode. Molal scale. Data for 50-250 C. DH(K1)=7.27 kJ mol-1, DS=60; DH(B2)=-1.82, DS=70. At I=0 (extended D-H), K1=2.62, B2=4.63.										
Nd+++	sp	NaClO4	20°C	2.0M	C	T H	K1=1.9	B2= 3.20	1997WZa (20068)	149
Also data at 35, 50 and 70 C. Method: photoacoustic spectrophotometry. DH(K1)=11 kJ mol-1, DH(B2)=23 kJ mol-1.										
Nd+++	sp	NaClO4	21°C	2.0M	U		K1=1.93 B3=3.63 B4=3.42	B2=2.94	1984BMa (20069)	150
Nd+++	sp	NaClO4	21°C	2.00M	U	T	K1=1.93	B2=2.94	1981BMb (20070)	151

B3=3.62
B4=3.28
Data also available when T=0.5, 40, 50 and 60.

Nd+++ sp NaClO4 25°C 2.0M U K1=1.83 B2=2.74 1977BMa (20071) 152
B3=3.49

Nd+++ oth NaClO4 20°C 2.00M U K1=1.9 B2=2.3 1974GEb (20072) 153
B3=3.6
Method: fluorescence

Nd+++ EMF diox/w ? 60% U I K1=3.92 B2=5.98 1971MCb (20073) 154
B3=7.63
Medium: 0-70% dioxan, 0.5 M NaClO4. 0%: K1=1.93, B2=3.64

Nd+++ EMF alc/w ? 60% U I K1=2.81 B2=4.84 1970MCa (20074) 155
B3=6.41
B4=7.42
B5=8.02
Medium: 0-80% EtOH, 2 M NaClO4. 0%: K1=1.90, B2=2.93, B3=3.52, B4=3.90
40%, K1=2.59, B2=4.22, B3=5.52, B4=6.15. 80%, K2=7.06.....B5=11.90,B6=12.48

Nd+++ gl alc/w 25°C 95% U H K1=5.23 B2=9.18 1967GWa (20075) 156
B3=11.81
B4=13.12
Medium:95% MeOH,0.5 M NaClO4. By calorimetry:DH(K1)=9.2 kJ mol-1,DS=130.8
J K-1 mol-1; DH(K2)=9.2,DS=107; DH(K3)=7.9,DS=76.9; DH(K4)=-7.1,DS=1.3

Nd+++ gl oth/un 25°C 0.0 U K1=2.668 B2=4.54 1964AMa (20076) 157

Nd+++ cal NaClO4 25°C 2.0M C H 1964GRa (20077) 158
DH(K1)=7.146 kJ mol-1, DS(K1)=61.1 J K-1 mol-1; DH(B2)=14.59, DS(B2)=108;
DH(B3)=18.2, DS(B3)=129.

Nd+++ sp oth/un 19°C 0.17M U M K1=1.95 B2=3.59 1963GAb (20078) 159
B3=5.02
Ternary complexes with hexamethylenediamine-N,N,N',N'-tetraethanoic acid
---
Nd+++ gl NaClO4 20°C 0.10M U K1=2.22 B2=3.76 1962KPa (20079) 160

Nd+++ EMF NaClO4 20°C 2.0M U K1=1.90 B2=3.01 1958SOb (20080) 161
B3=3.46
B4=3.54
Method: quinhydrone electrode
****
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
---

```
Nd+++      gl  NaClO4 25°C 0.20M U        K1=5.87   B2=10.68  1996PJa (20348) 162
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U        K1=5.55   B2=10.82  1995PJb (20349) 163
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U    M   K1=3.67        1986LSb (20350) 164
                                         K(Pr(EDTA)+L)=3.63
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   30°C 0.10M U    M                  1980RTa (20351) 165
                                         K(Nd(CDTA)+L)=3.27
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 20°C 0.10M U                       1964PKa (20352) 166
                                         K(Nd+HL)=2.07
                                         K(NdHL+HL)=1.20
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C  2.0M U                       1962BCa (20353) 167
                                         K(Nd+HL)=1.49
                                         K(NdHL+HL)=0.8
--------------------------------------------------------------------------------
Nd+++      gl  KCl    30°C 0.10M U                       1962CTa (20354) 168
                                         K(Nd+HL)=2.48
                                         K(NdHL+HL)=2.52
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U        K1=5.35   B2=10.84  1996PJa (20585) 169
--------------------------------------------------------------------------------
Nd+++      EMF NaClO4 25°C 1.00M U    M   K1=2.46   B2=4.54   1991WPb (20586) 170
                                         B(NdLA)=4.90
H2A=maleic acid
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U    M   K1=3.83        1986LSb (20587) 171
                                         K(Nd(EDTA)+L)=3.64
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U    M   K1=3.87        1985LSf (20588) 172
                                         K(Nd(edta)+L)=3.69
--------------------------------------------------------------------------------
Nd+++      sp  NaClO4 21°C 2.00M U        K1=2.41   B2=4.38   1981BMb (20589) 173
                                         B3=5.33
                                         B4=6.25
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   32°C 0.10M U                       1980PPf (20590) 174
                                         K(Nd+HL=NdL+H)=-0.94
                                         *K(NdL)=-6.25
                                         K(Nd+2HL=NdL2+2H)=-2.09
                                         *K(NdL2)=-5.78
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C  2.0M U        K1=2.15   B2=3.70   1977BMa (20591) 175
```

B3=4.51

Nd+++ gl NaClO4 25°C 0.50M C T K1=2.54 B2=4.39 1977CMa (20592) 176
B3=5.81

Nd+++ cal NaClO4 25°C 2.0M C H 1964GRa (20593) 177
DH(K1)=-4.992 kJ mol-1, DS(K1)=31 J K-1 mol-1; DH(B2)=-9.155, DS(B2)=51.9;
DH(B3)=-14.56, DS(B3)=56.9; DH(B4)=-16.7, DS(B4)=58.6.

Nd+++ gl NaClO4 20°C 0.10M U K1=2.89 B2=4.86 1964PKb (20594) 178
B3=6.1

Nd+++ gl KCl 30°C 0.10M U K1=3.07 B2=5.88 1962CTa (20595) 179

Nd+++ EMF NaClO4 20°C 2.0M U K1=2.51 B2=4.34 1959SOb (20596) 180
B3=5.6
B4=6.0
B5=5.7
Method: quinhydrone electrode. By spectrophotometry: K1=2.54, B2=4.4, B3=5.3

****

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

---

Nd+++ gl KNO3 25°C 0.0 M T H K1=5.86 2003MBa (21634) 181
K(Nd+HL=NdL+H)=-3.78
Extrapolated from data for I=0.07-0.32 M KNO3. DH(K1)=-57.7 kJ mol-1,
DS(K1)=-81.4 J K-1 mol-1; DH(Nd+HL)=-26.7, DS(Nd+HL)=-161.9.

Nd+++ gl NaClO4 25°C 0.20M U K1=4.50 B2= 8.62 1996PJa (21635) 182

Nd+++ gl NaClO4 25°C 0.20M U K1=4.50 B2= 8.62 1995PJb (21636) 183

Nd+++ gl KNO3 25°C 0.20M U M K1=6.31 1990LSb (21637) 184
K(Nd(phen)+L)=5.97

Nd+++ gl NaClO4 25°C 0.20M U K1=4.50 B2= 8.62 1987PPa (21638) 185

Nd+++ gl KNO3 35°C 0.10M U 1987RRc (21639) 186
K(Nd+HL)=3.71

Nd+++ gl NaClO4 25°C 0.20M U M K1=5.68 1986LSb (21640) 187
K(Nd(EDTA)+L)=4.89

Nd+++ gl KNO3 35°C 0.10M U M 1986RMb (21641) 188
K(Nd+HL)=3.71
K(Nd+HL+cytidine)=8.41

Nd+++ gl NaClO4 25°C 0.20M U M K1=5.68 1985LSe (21642) 189

K(Nd(edta)+L)=4.89.

Nd+++	vlt	KCl	32°C	1.0M	C	K1=4.00	1981PCb (21643)	190

Method: polarography. Medium pH 2.75.

Nd+++	gl	NaClO4	25°C	0.15M	U T	K1=3.26 B(NdHL)=10.43 B(NdH-1L)=-4.96	1979HJa (21644)	191

Nd+++	EMF	KCl	25°C	1.0M	U M	K(NdA+L)=3.36 K(NdA+HL)=2.90 K(NdA+H2L)=3.03	1977GMa (21645)	192

Method: Pt/H2 electrode. H3A is N-hydroxyethyl-1,2-diaminoethane-N,N',N'-triethanoic acid.

Nd+++	gl	NaClO4	30°C	0.2M	U T	K1=4.62	1977MSf (21646)	193

Nd+++	sp	oth/un	?	0.10M	U	K1=4.74	1969SMn (21647)	194

Medium: NdCl3

Nd+++	EMF	oth/un	?	0.02M	U	K(NdOH+L)=9.46	1968KRb (21648)	195

Nd+++	EMF	alc/w	?	40%	U I	K1=4.40	1968RKa (21649)	196

Medium: I=0.02. 0% EtOH, K1=3.67; 60%, K1=4.76

Nd+++	gl	KCl	30°C	0.10M	U T	K1=3.71	B2=7.01	1962CTa (21650)	197

****

C2H5O2Cl2P HL (5703)

Di(chloromethyl)phosphinic acid; (ClCH2)2P(O)OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	sp	R4N.X	20°C	0.10M	U		K1=0.44	1989APc (21862)	198

****

C2H6OS L DMSO CAS 67-68-5 (329)

Dimethylsulfoxide; (CH3)2.SO

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	sp	non-aq	25°C	100%	U		K8=2.0 K9=0.9 K10=0.6	1992MBb (22116)	199

Medium: MeCN. Method: FT-IR and Raman spectroscopy

****

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
Nd+++	gl	NaClO4	22°C	0.10M	U			1972MCd (22152)		200
							K(NdH-1L+H)=7.80			

****

C2H6O6P2 H4L (5706)

Ethene-1,1-diphosphonic acid; H2C:C(PO3H2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	KCl	25°C	0.15M	U	I		1989AMa (22174)		201
							K(Nd+H2L)=4.63			

****

C2H7O4P HL CAS 813-78-5 (1754)

Dimethylphosphoric acid; (CH3O)2P(O)OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	kin	none	25°C	0.00	U		K1=0.85	1966SSb (22576)		202

****

C2H8NO4P H2L CAS 1071-23-4 (1864)

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	KCl	20°C	0.10M	U		K1=5.80	1987BPb (22675)		203
							K(Nd+HL)=4.09			

****

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
Nd+++	ISE	non-aq	25°C	100%	C	H	K1=1.50	B2=2.89	1992CBa (23204)	204
							B3=3.80			

Medium: DMSO, 0.10 M Et4NClO4. By calorimetry, DH(K1)=-22, DH(B2)=-52.6, DH(B3)=-84 kJ mol-1.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	cal	non-aq	?	100%	U		K1=10.1	B2=18.50	1968FMa (23205)	205
							K3=6.4			
							K4=3.4			

Medium: CH3CN

****

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
Nd+++	sp	oth/un	25°C	0.70M	U				1987APa (23392)	206
							K(Nd+H2L)=5.66			

****

C3H4O2 HL Acrylic acid CAS 79-10-7 (2044)
Propenoic acid; CH2:CH.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	oth/un	25°C	?	U	M	K1=2.20 K(NdL+acac)=5.33 K(Nd(acac)L+acac)=4.04		1998PAa (23991)	207

Additional method: nmr. Medium not stated.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	NaClO4	25°C	0.10M	C	H	K1=1.92 B3=5.3	B2=3.66	1996HBa (23992)	208

DH(K1)=11.4 kJ mol-1, DS=75 J K-1 mol-1

****

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
Nd+++	nmr	NaClO4	25°C	2.00M	U	H	K1=1.46		1980CCa (24060)	209

DH=-4.72 kJ mol-1. Alternative method: Calorimetry.

****

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
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=4.50 K(Nd(EDTA)+L)=3.60		1986LSb (24510)	210
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=4.55 K(Nd(edta)+L)=3.66		1985LSf (24511)	211
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=4.50 K(Nd(edta)+L)=3.60		1984LSd (24512)	212
Nd+++	gl	NaClO4	30°C	0.10M	M	M	K1=4.21 B(NdAL)=8.21 K(NdA+L)=4.44 K(NdL+A)=4.00 B(NdBL)=6.74		1976SJa (24513)	213

K(NdB+L)=3.84, K(NdL+B)=2.52; B(NdCL)=9.42, K(NdC+L)=2.03, K(NdL+C)=5.21;
H2A is itaconic acid, H2B is adipic acid, H2C is 5-sulfosalicylic acid.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	NaClO4	30°C	0.10M	M	M	B(NdAL)=8.52 K(NdA+L)=4.08 K(NdL+A)=4.31		1976SJa (24514)	214

H2A is 3,5-dinitrosalicylic acid.

```
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M U        K1=4.33        1972DCc (24515) 215
--------------------------------------------------------------------------------
Nd+++      oth KCl    27°C 0.10M U T      K1=4.6         1972SOa (24516) 216
35 C: K1=4.68; 40 C: K1=4.95
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 1.00M U        K1=3.38   B2=5.92   1971DGa (24517) 217
                                         B(NdHL)=6.48
                                         B(NdHL2)=9.44
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.10M U        K1=3.95   B2=6.41   1968PFa (24518) 218
********************************************************************************
C3H4O5                H2L    Tartronic acid   CAS 80-69-3  (839)
Hydroxypropanedioic acid; HO.CH(COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  oth/un 20°C    ?  U        K1=6.7         1964ZTa (24618) 219
********************************************************************************
C3H4O6                H2L                    CAS 560-27-0  (4233)
Dihydroxypropanedioic acid; HOOC.C(OH)2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 0.20M U        K1=3.94        1973LPb (24630) 220
********************************************************************************
C3H5NO2                HL                      (4234)
Isonitrosoacetone; CH3.CO.CH:N.OH, anti-Pyruvic aldehyde oxime
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  diox/w 20°C  50%  U        K1=5.24        1971MAf (24647) 221
Medium: 50% dioxan, 0.1 M NaClO4
********************************************************************************
C3H6N2O2               L    Methylglyoxime   CAS 2140-03-6  (2981)
Methylglyoxime; CH3.C(:N.OH).CH:N.OH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  diox/w 20°C  50%  U        K1=6.48   B2=11.98  1971MAf (24809) 222
Medium: 50% dioxan, 0.1 M NaClO4
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      sp  NaClO4 21°C 2.00M U        K1=2.00   B2=3.12   1981BMc (25023) 223
                                         B3=3.82
                                         B4=3.52
```

```
--------------------------------------------------------------------------------
Nd+++      EMF diox/w 25°C  50%  U  I     K1=3.73   B2=5.74   1971MCc (25024) 224
                                          B3=7.18
Medium: 0-70% dioxan, 0.5 M NaClO4. 0%: K1=1.94, B2=3.23; 20%: K1=2.37,
B2=3.99; 40%: K1=3.04, B2=4.75, B3=6.05; 60%: K1=4.10, B2=6.83, B3=8.07
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C  2.0M U        K1=1.93   B2=3.08   1965CGa (25025) 225
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 20°C 0.10M U        K1=2.20   B2=3.52   1964PKa (25026) 226
********************************************************************************
C3H6O2S               H2L    Thiolactic acid  CAS 79-42-5  (366)
2-Mercaptopropanoic acid;  CH3.CH(SH).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U        K1=6.36   B2=11.98  1996PJa (25160) 227
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U        K1=5.08   B2= 9.73  1995PJb (25161) 228
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 2.00M U                            1968CMa (25162) 229
                                          K(Nd+HL)=1.93
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 31°C  2.0M U                            1963BCb (25163) 230
                                          K(Nd+HL)=1.56
                                          K(NdHL+HL)=0.8
********************************************************************************
C3H6O2S               H2L                    CAS 107-96-0  (437)
3-Mercaptopropanoic acid; HS.CH2.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 2.00M U                            1968CMa (25220) 231
                                          K(Nd+HL)=1.74
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 31°C  2.0M U                            1963BCb (25221) 232
                                          K(Nd+HL)=1.94
                                          K(NdHL+HL)=1.3
--------------------------------------------------------------------------------
Nd+++      gl  KCl    30°C 0.10M U                            1962CTa (25222) 233
                                          K(Nd+HL)=2.58
                                          K(NdHL+HL)=2.49
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 2.00M U        K1=1.66           1969JCc (25272) 234
--------------------------------------------------------------------------------
Nd+++      gl  KCl    30°C 0.10M U        K1=2.80   B2=5.52   1962CTa (25273) 235
```

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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
Nd+++	gl	NaClO4	25°C	0.20M	U		K1=6.75	B2=12.62	1996PJa (25486)	236
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=3.99 K(Nd(EDTA)+L)=3.68		1986LSb (25487)	237
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=4.03 K(Nd(edta)+L)=3.74		1985LSf (25488)	238
Nd+++	gl	KNO3	30°C	0.10M	U		K(Nd+HL=NdL+H)=0.19 *K(NdL)=-4.79 K(Nd+2HL=NdL2+2H)=-0.80 *K(NdL2)=-4.14		1983MPc (25489)	239
Nd+++	sp	NaClO4	21°C	2.00M	U		K1=2.45 B3=5.44 B4=6.25	B2=4.39	1981BMc (25490)	240
Nd+++	gl	NaClO4	25°C	0.5M	U		K1=2.595 B3=6.09	B2= 4.36	1981JPa (25491)	241
Additional method: polarimetry										
Nd+++	gl	NaClO4	25°C	0.20M	U		K1=2.65 K3=0.93 K4=0.08	B2=4.44	1964DVa (25492)	242
Nd+++	gl	NaClO4	20°C	0.10M	U		K1=2.87 B3=6.4	B2=4.97	1964PKb (25493)	243
Nd+++	gl	NaClO4	25°C	2.0M	U		K1=2.47 K3=1.23	B2=4.37	1961CCa (25494)	244

****

C3H6O3 HL Methoxyacetic CAS 625-45-6 (29)
Methoxyethanoic acid; CH3.O.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	NaClO4	20°C	0.10M	U		K1=2.11	B2=3.34	1964PKa (25604)	245

****

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

```
Nd+++      gl  NaClO4 25°C 0.20M U        K1=4.80   B2= 8.40  1996PJa (26217) 246
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U        K1=4.80   B2= 8.40  1995PJb (26218) 247
--------------------------------------------------------------------------------
Nd+++      gl  NaNO3  25°C  0.0  U        K1=5.16        1991ADb (26219) 248
Extrapolated from data for 0.01-0.1 M NaNO3. Data for 35 and 45 C.
--------------------------------------------------------------------------------
Nd+++      gl  NaCl   37°C 0.15M U    M   K1=3.90   B2=7.80   1991DWb (26220) 249
                                          B(NdH2L(Glu))=22.90
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.20M U    M   K1=6.48        1990LSb (26221) 250
                                          K(Nd(phen)+L)=6.20
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   35°C 0.10M U        K1=5.11        1990RSe (26222) 251
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U        K1=4.80   B2= 8.40  1987PPa (26223) 252
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U    M   K1=6.52        1986LSb (26224) 253
                                          K(Nd(EDTA)+L)=5.17
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U    M   K1=6.52        1985LSe (26225) 254
K(Nd(edta)+L)=5.17.
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U    M   K1=6.52        1984LSd (26226) 255
                                          K(Nd(edta)+L)=5.17
--------------------------------------------------------------------------------
Nd+++      sp  oth/un   ?     ?  U        K1=5.5         1970EMa (26227) 256
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.10M U        K1=4.8         1967EMb (26228) 257
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U    M   K1=6.24        1986LSb (26468) 258
                                          K(Nd(EDTA)+L)=4.72
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U    M   K1=6.24        1984LSd (26469) 259
                                          K(Nd(edta)+L)=4.72
--------------------------------------------------------------------------------
Nd+++      gl  KCl    30°C 0.10M U      T K1=3.04        1962CTa (26470) 260
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  NaNO3  15°C 0.10M U T      K1=13.45  B2=18.75  1984IDa (26812) 261
At 30 C, K1=13.35, K2=5.20.
```

```
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 20°C  0.0  U T H    K1=6.852  B2=13.52  1980SDc (26813) 262
Extrapolated from data for I=0.10-1.0 M. Data for 35 and 45 C.
DH(K1)=-11.2 kJ mol-1, DS=93 J K-1 mol-1; DH(K2)=-13.9, DS=80.
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U        K1=4.71   B2= 8.92  1996PPa (27157) 263
--------------------------------------------------------------------------------
Nd+++      gl  NaNO3  25°C 0.10M M  I M   K1=5.07        1995KDd (27158) 264
                                         K(Nd(egta)+L)=3.60
Data for 0.15 and 0.05 M NaNO3. At I=0, K1=5.32, K(Nd(egta)+L)=3.88.
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 22°C 0.10M U                         1972MCd (27681) 265
                                         K(NdH-1L+H)=7.70
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 22°C 0.10M U                         1972MCd (27742) 266
                                         K(NdH-1L+H)=7.60
--------------------------------------------------------------------------------
Nd+++      gl  NaCl   25°C 0.10M U                         1970PKe (27743) 267
                                         K(NdH-1L+H)=7.62
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   27°C 0.10M M    M                   1979KSc (28311) 268
                                         K(NdL+phthalate)=6.33
                                         K(NdL+malonate)=5.53
********************************************************************************
C3H11NO6P2            H4L                        (6772)
(Dimethylamino)-N-methylenediphosphonic acid; (CH3)2N.CH(PO3H2)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaNO3  24°C 0.20M C        K1=16.0   B2=20.4   1993BRa (28415) 269
```

K(NdL+H)>13
K(NdHL+H)=2.9
K(NdL2+H)>13
K(NdHL2+H)=10.8
K(NdH4L2+H)=2.1

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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
Nd+++	gl	KNO3	25°C	0.10M	U		K1=13.18	B2=22.57	2002KAa (28579)	270
							K(Nd+HL)=5.24			
							K(Nd+2HL)=10.53			
Nd+++	gl	KNO3	25°C	0.10M	C				1991SKb (28580)	271
							K(NdL+H)=7.52			
							K(NdHL+H)=5.50			

****

C4H2O4 H2L Squaric acid CAS 2892-51-5 (439)
3,4-Dihydroxy-3-cyclobutene-1,2-dione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	cal	NaClO4	25°C	0.10M	U	H	K1=2.73	B2=4.21	1976OCa (28659)	272

DH(K1)=8.3 kJ mol-1, DS=81 J K-1 mol-1; DH(B2)=12.4, DS=122

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	NaClO4	25°C	0.10M	C	H	K1=2.735	B2= 4.22	1976OCb (28660)	273

By calorimetry: DH(K1)=8.33 kJ mol-1, DS(K1)=80.8 J K-1 mol-1.
DH(B2)=12.4, DS(B2)=122.

****

C4H4N2O2S H2L Thiobarbituric CAS 504-17-6 (4279)
4,6-Dihydroxy-2-mercaptopyrimidine, 2-thiobarbituric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	oth/un	25°C	0.10M	U		K1=2.870		1987TSb (28894)	274

****

C4H4N2O3 H2L Barbituric acid CAS 67-52-7 (2818)
2,4,6-Trihydroxypyrimidine; C4HN2(OH)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	oth/un	25°C	0.10M	U	T H	K1=3.77		1987TSb (28917)	275

30 C:K=3.38; 35 C: 3.11. DH=-116.0 kJ mol-1, DS=-318 J K-1 mol-1

****

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

```
--------------------------------------------------------------------------------
Nd+++      gl  oth/un 25°C    ?  U    M   K1=3.79        1998PAa (29107) 276
                                          K(NdL+acac)=4.50
                                          K(Nd(acac)L+acac)=4.17
Additional method: nmr. Medium not stated.
--------------------------------------------------------------------------------
Nd+++      EMF NaClO4 25°C 1.00M U    M   K1=2.87   B2=4.67   1991WPb (29108) 277
                                          B(NdLA)=4.90
HA=glycolic acid
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U    M   K1=5.05        1986LSb (29109) 278
                                          K(Nd(EDTA)+L)=4.53
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U    M   K1=5.10        1985LSf (29110) 279
                                          K(Nd(edta)+L)=4.59
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M U        K1=3.66        1973CDc (29111) 280
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M U        K1=3.66   B2=5.80   1970RFa (29112) 281
********************************************************************************
C4H4O4                H2L    Fumaric acid     CAS 110-17-8  (289)
trans-Butenedioic acid; HOOC.CH:CH.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M C        K1=2.56        1986LCa (29211) 282
                                          B(NdHL)=6.15
                                          K(Nd+HL)=2.07
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M U        K1=2.74        1973CDc (29212) 283
--------------------------------------------------------------------------------
Nd+++      sp  oth/un   ?     ?  U        K1=7.5         1957VIb (29213) 284
********************************************************************************
C4H4O5                H2L    Oxobutanedioic   CAS 328-42-7  (1733)
2-Oxosuccinic acid, Oxalacetic acid; HOOC.CH2.CO.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.50M M        K1=3.62   B2=6.72   1991MOa (29278) 285
********************************************************************************
C4H5NO5               H2L                      (7375)
Oxalohydroxamic acid; HOOC.CO.CH2.CO.NHOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C  0.1M M        K1=10.42  B2=20.09  1989LWa (29314) 286
                                          K3=9.08
********************************************************************************
C4H5O4Cl              H2L                      CAS 16045-92-4  (2232)
Chlorosuccinic acid; HOOC.CH(Cl).CH2.COOH
```

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	NaClO4	30°C	0.10M	M		K1=2.42	1984SHb (29436)	287
Nd+++	gl	NaClO4	30°C	0.10M	U	M	B(NdLA)=6.38 K(NdL+A)=2.28 K(NdA+L)=3.96	1984SHc (29437)	288

H3A is carboxymethylthiosuccinic acid.

C4H6O2 HL Methylacrylic (6992)
2-Methylpropenoic acid; CH2:C(CH3)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	KCl	25°C	0.10M	U		K1=2.35	1995PAa (29702)	289

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
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=3.81 K(Nd(EDTA)+L)=3.46	1986LSb (29719)	290
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=3.85 K(Nd(edta)+L)=3.51	1985LSf (29720)	291

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
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=4.37 K(Nd(EDTA)+L)=3.87	1986LSb (30005)	292
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=4.41 K(Nd(edta)+L)=3.93	1985LSf (30006)	293
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=4.37 K(Nd(edta)+L)=3.87	1984LSd (30007)	294
Nd+++	gl	NaClO4	30°C	0.10M	U	M	B(NdLA)=6.76 K(NdL+A)=2.64 K(NdA+L)=3.40	1984SHc (30008)	295

H3A is carboxymethylthiosuccinic acid.

Nd+++	gl	NaClO4	30°C	0.10M	M	M	K1=3.38	1976SJa (30009)	296

B(NdAL)=6.53
K(NdA+L)=3.26
K(NdL+A)=3.15
B(NdBL)=7.48
K(NdB+L)=3.27, K(NdL+B)=4.10; B(NdCL)=7.41, K(NdC+L)=4.64, K(NdL+C)=4.03;
H2A is adipic acid, H2B is malonic acid, H2C is itaconic acid.

Nd+++ gl NaClO4 30°C 0.10M M M 1976SJa (30010) 297
B(NdAL)=7.15
K(NdA+L)=2.93
K(NdL+A)=3.77
B(NdBL)=8.66
K(NdB+L)=1.27, K(NdL+B)=5.28; B(NdCL)=8.25, K(NdC+L)=3.81, K(NdL+C)=4.87;
H2Ais phthalic, H2B is 5-sulfosalicylic, H2C is 3,5-di-NO2-salicylic acid.

Nd+++ sp oth/un ? ? U K1=8.1 1957VIb (30011) 298
****
C4H6O4 H2L Me-Malonic Acid CAS 516-15-2 (816)
Methylpropanedioic acid; HOOC.CH(CH3).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaClO4 30°C 0.10M M M K1=5.33 B2= 8.24 1984SHb (30130) 299
B(NdLA)=8.15
K(NdL+A)=4.77
K(NdA+L)=2.82
B(NdLB)=8.56
K(NdL+B)=4.79, K(NdB+L)=3.23; B(NdLC)=7.24, K(NdL+C)=4.82, K(NdC+L)=1.91;
H2A is succinic acid, H2B is itaconic acid, H2C is chlorosuccinic acid.

Nd+++ gl NaClO4 30°C 0.10M M M 1984SHb (30131) 300
B(NdLA)=8.02
K(NdL+A)=4.80
K(NdA+L)=2.69
B(NdLB)=7.86
K(NdL+B)=4.65, K(NdB+L)=2.53. H2A is thiodiethanoic acid,
H2B is thiodipropanoic acid.

Nd+++ gl NaClO4 30°C 0.10M U M 1984SHc (30132) 301
B(NdLA)=8.85
K(NdL+A)=4.75
K(NdA+L)=3.52
H3A is carboxymethylthiosuccinic acid.

Nd+++ gl KCl 25°C 0.20M U K1=3.68 B2=5.87 1975PLa (30133) 302
****
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

```
-------------------------------------------------------------------------------
Nd+++      gl  NaClO4 30°C 0.10M U    M                 1984SHc (30224) 303
                                        B(NdLA)=7.08
                                        K(NdL+A)=2.98
                                        K(NdA+L)=3.86
H3A is carboxymethylthiosuccinic acid.
*******************************************************************************
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
-------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U        K1=6.51   B2=11.33  1996PJa (30348) 304
-------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U        K1=6.01   B2=10.06  1995PJb (30349) 305
-------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U    M   K1=4.56        1986LSb (30350) 306
                                        K(Nd(EDTA)+L)=4.52
-------------------------------------------------------------------------------
Nd+++      gl  KNO3   30°C 0.10M U    M                 1980RTa (30351) 307
                                        K(Nd(CDTA)+L)=3.61
-------------------------------------------------------------------------------
Nd+++      gl  KCl    30°C 0.10M U                      1962CTa (30352) 308
                                        K(Nd+HL)=3.38
                                        K(NdHL+HL)=2.99
                                        K(Nd(HL)2+HL)=2.57
*******************************************************************************
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
-------------------------------------------------------------------------------
Nd+++      gl  KCl    25°C  0.1M U        K1=4.60        2004SBa (30683) 309
                                        K(Nd+HL)=2.40
-------------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 0.10M U        K1=4.66        2003SBa (30684) 310
                                        K(Nd+HL)=2.47
-------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U        K1=5.66   B2=11.02  1996PJa (30685) 311
-------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U    M   K1=4.45        1986LSb (30686) 312
                                        K(Nd(EDTA)+L)=3.75
-------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U    M   K1=4.49        1985LSf (30687) 313
                                        K(Nd(edta)+L)=3.81
-------------------------------------------------------------------------------
Nd+++      gl  KNO3   30°C 0.10M U    M                 1984AIa (30688) 314
                                        K(Nd(EDTA)+L)=2.014
-------------------------------------------------------------------------------
Nd+++      sp  oth/un 20°C 0.10M U        K1=4.65   B2=7.17   1980ADa (30689) 315
```

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------------------------------------------------------------------------------
Nd+++      sp  oth/un 20°C    ?  U    M                  1980ADa (30690) 316
                                      K(Nd(EDTA)+L)=1.92
------------------------------------------------------------------------------
Nd+++      gl  KNO3   20°C 0.10M U                       1980SDa (30691) 317
                                      B(NdHL)=6.83
------------------------------------------------------------------------------
Nd+++      gl  KNO3   20°C 0.10M U        K1=4.59   B2=7.20   1980SDb (30692) 318
                                      K(Nd+HL)=2.09
------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M U        K1=4.77   B2=7.94   1970RFa (30693) 319
------------------------------------------------------------------------------
Nd+++      EMF KCl    25°C 0.20M U        K1=4.45        1964DAb (30694) 320
------------------------------------------------------------------------------
Nd+++      gl  KCl    30°C 0.10M U        K1=5.12   B2=8.76   1962CTa (30695) 321
                                      K3=2.92
------------------------------------------------------------------------------
Nd+++      sp  oth/un   ?     ?  U        K1=8.4         1957VIb (30696) 322
Metal: Nd++ ?
******************************************************************************
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
------------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.10M M    M   K1=2.67        1989NDa (30903) 323
                                      K(NdL+ida)=2.39
                                      K(NdL+gly)=2.52
                                      B(NdLA)=8.66
                                      B(NdLB)=9.55
H2A is tartaric acid, H2B is malic acid. Also data for quaternary systems:
NdLA+ida, NdLA+gly, NdLB+ida, NdLB+gly.
------------------------------------------------------------------------------
Nd+++      gl  KCl    25°C  1.0M U    M                  1988KTa (30904) 324
                                      K(Nd(edta)+L)=2.06
------------------------------------------------------------------------------
Nd+++      cal NaClO4 25°C  1.0M C   H                   1963GRd (30905) 325
DH(K1)=-3.55 kJ mol-1, DS(K1)=92.5 J K-1 mol-1; DH(B2)=-8.799, DS(B2)=153;
DH(B3)=-12.55, DS(B3)=190.
------------------------------------------------------------------------------
Nd+++      EMF NaClO4 20°C 1.00M U        K1=5.45   B2=9.50   1963GTa (30906) 326
                                      B3=12.16
Method: quinhydrone electrode
******************************************************************************
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
------------------------------------------------------------------------------
Nd+++      sp  oth/un 25°C  0.0  U T H    K1=4.66        1975YBa (31317) 327
```

DH(K1)=-13.0 kJ mol-1, DS=46 J K-1 mol-1

Nd+++ gl NaClO4 25°C 0.10M U K1=4.16 B2=7.63 1972RMa (31318) 328
Values quoted for meso form
K1(dl)=5.08, K2(dl)=3.45, B2(meso-dl)=7.63

Nd+++ gl alc/w 25°C 50% U I K1=5.53 1972SSj (31319) 329
Medium: 50% EtOH, 0.05 M. 50% EtOH, I=0: K2=7.21

Nd+++ sp oth/un ? ?0 U K1=4.66 1970DMb (31320) 330
K(NdA+L)=2.0
H4A=ethylenediaminetetraacetic acid

Nd+++ gl KCl 24°C 0.20M U K1=3.45 1966DDa (31321) 331

Nd+++ sp oth/un ? ? U K1=9.0 1957VIb (31322) 332

****

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
Nd+++	EMF	NaClO4	25°C	0.10M	U		K1=1.86		1971RCa (31504)	333

****

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
Nd+++	gl	NaClO4	25°C	0.20M	U		K1=5.52	B2=10.39	1996PJa (31899)	334
Nd+++	gl	NaClO4	25°C	0.20M	U		K1=5.62	B2=10.49	1996PPa (31900)	335
Nd+++	gl	NaClO4	25°C	0.20M	U		K1=5.62	B2=10.49	1995PJb (31901)	336
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=6.04		1986LSb (31902)	337
							K(Nd(EDTA)+L)=4.98			
Nd+++	gl	NaClO4	30°C	0.10M	U		K1=5.02	B2=9.24	1984YLa (31903)	338
Nd+++	gl	NaClO4	30°C	0.10M	U	T	K1=5.66	B2=10.46	1971TSe (31904)	339
K1(40 C)=9.23; K1(50 C)=9.65; K2(40 C)=4.89; K2(50 C)=6.7										
Nd+++	gl	KCl	25°C	0.10M	U		K1=5.36	B2=9.26	1968DRb (31905)	340
Nd+++	gl	KCl	30°C	0.10M	U		K1=5.40	B2=9.48	1962CTa (31906)	341
							K3=3.06			
Nd+++	gl	KCl	25°C	0.10M	U		K1=5.5	B2=10.40	1961BLb (31907)	342

****

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
Nd+++	gl	KCl	25°C	1.0M	U	M		1988KTa (32306)	343
							K(Nd(edta)+L)=3.83		
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=6.70 B2=11.79	1988VSc (32307)	344
							K(Nd(HEDTA)+L)=5.06		
							K(Nd(CDTA)+L)=4.47		
							K(Nd(DTPA)+L)=4.09		
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=6.70 B2=11.79	1987VSb (32308)	345
							K(Nd(nta)+L)=5.81		
							K(Nd(edta)+L)=4.37		
Nd+++	gl	KNO3	27°C	0.10M	M	M		1984KTb (32309)	346
							K(NdA+L)=5.40		
							K(NdB+L)=5.24		
H2A=Citraconic acid, H2B=Maleic acid									
Nd+++	vlt	KCl	32°C	1.0M	C			1981PCb (32310)	347
							K(Nd+HL)=4.36		
Method: polarography. Medium pH 2.75.									
Nd+++	gl	KNO3	27°C	0.10M	U	M		1980KTb (32311)	348
							K(NdA+L)=5.91		
							K(NdB+L)=5.52		
H2A=phthalic acid, H2B=malonic acid									
Nd+++	EMF	KCl	25°C	1.0M	U	M		1977GMa (32312)	349
							K(NdA+L)=4.26		
							K(NdA+HL)=1.40		
							K(NdA+H2L)=1.92		
							K(NdA+H3L)=2.83		
Method: Pt/H2 electrode. H3A is N-hydroxyethyl-1,2-diaminoethane-N,N',N'-triethanoic acid.									
Nd+++	sp	none	25°C	0.0	U	M		1974PLa (32313)	350
							K(NdL+H2O2)=4.07		
Method: fluorescence									
Nd+++	gl	KNO3	25°C	0.10M	U	M		1974TDa (32314)	351
							K(NdL+Citrate)=5.1		
Nd+++	sp	oth/un	25°C	1.00M	U			1973TEb (32315)	352
							K3=3.14		
Nd+++	cal	KNO3	20°C	0.10M	U	HM		1971GKb (32316)	353

```
                                        K(NdA+L)=3.68
DH(NdA+L)=-11.13 kJ mol-1, DS=32.6 J K-1 mol-1. DH(NdAL)=-26.28, DS=29.
H4A=EDTA
-------------------------------------------------------------------------
Nd+++      sp  KCl      ?  0.60M U        K1=6.58   B2=11.50  1970KMe (32317) 354
                                        K3=3.53
-------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.10M U        K1=6.58   B2=11.50  1969PMd (32318) 355
-------------------------------------------------------------------------
Nd+++      gl  alc/w  20°C  60%  U  I     K1=9.30        1968KRc (32319) 356
Medium: 0-60% EtOH, 0.02M
K1(0%)=7.94, K1(20%)=8.33, K1(40%)=8.70, K1(50%)=9.13
-------------------------------------------------------------------------
Nd+++      sp  KCl    25°C 0.20M U        K1=6.4    B2=10.68  1967TKa (32320) 357
-------------------------------------------------------------------------
Nd+++      sp  oth/un 25°C 0.20M U        K1=6.66   B2=11.04  1966KTa (32321) 358
-------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.10M U    M   K1=6.50   B2=11.39  1962THa (32322) 359
Ternary complexes with N-(2-hydroxyethyl)diaminoethane-triethanoic acid
*************************************************************************
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
-------------------------------------------------------------------------
Nd+++      gl  diox/w 20°C  50%  U        K1=7.81   B2=14.65  1971MAf (32545) 360
Medium: 50% v/v dioxan, 0.1 M NaClO4
*************************************************************************
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
-------------------------------------------------------------------------
Nd+++      gl  NaClO4 30°C 0.10M U        K1=3.77   B2=6.38   1984YLa (32713) 361
-------------------------------------------------------------------------
Nd+++      gl  NaClO4 30°C  0.2M U        K1=4.26        1977MSf (32714) 362
-------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M U        B2=7.87        1973TSc (32715) 363
*************************************************************************
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
-------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 0.10M U        K1=2.35        1973FMa (33038) 364
*************************************************************************
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
```

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--------------------------------------------------------------------------------
Nd+++      gl  KCl    60°C 0.10M U        K1=6.29   B2=10.30  1978NBa (33089) 365
                                          B3=13.20
--------------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 0.10M U        K1=3.69   B2=4.61   1977IMa (33090) 366
                                          B3=7.08
********************************************************************************
C4H8N2O4              H2L                      CAS 39156-77-9  (3008)
Hydrazine-N,N-diethanoic acid; H2N.N(CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   30°C 0.10M U    M                 1984AIa (33110) 367
                                          K(Nd(EDTA)+L)=2.872
********************************************************************************
C4H8O2                 HL    Isobutyric acid  CAS 79-31-2  (573)
2-Methylpropanoic acid; CH3.CH(CH3).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 2.00M U   H    K1=1.91   B2=3.09   1965CGa (33238) 368
By calorimetry: DH(K1)=11.9 kJ mol-1,DS=76.5 J K-1 mol-1; DH(K2)=10.0,DS=56
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.50M U        K1=1.98   B2=3.10   1964SPa (33239) 369
--------------------------------------------------------------------------------
Nd+++      sp  oth/un   ?     ?  U        K1=6.2         1957VIb (33240) 370
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      cal KCl    25°C  1.0M U        K1=2.92   B2= 4.84  2003ASa (33339) 371
                                          K3=1.19
--------------------------------------------------------------------------------
Nd+++      EMF diox/w 25°C  60%  U  I     K1=3.55   B2=6.19   1971MSi (33340) 372
                                          B3=8.10
Medium: 0-70% dioxan, 0.5 M NaClO4. K1(0%)=1.76, B2=2.88; K1(20%)=2.27,
B2=3.45; K1(40%)=2.62, B2=4.48; K1(50%)=3.22, B2=5.43; B2(70%)=7.03, B3=9.65
--------------------------------------------------------------------------------
Nd+++      sp  oth/un   ?     ?  U        K1=6.3         1957VIb (33341) 373
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 31°C  2.0M U        K1=1.72   B2=2.52   1963BCb (33410) 374
********************************************************************************
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
Nd+++	sp	NaClO4	21°C	2.00M	U		K1=2.62 B3=5.93 B4=6.89	B2=4.72	1981BMc (33491)	375
Nd+++	gl	NaClO4	25°C	0.20M	U		K1=2.74 K3=1.56 K4=0.6	B2=4.42	1964DVa (33492)	376
Nd+++	gl	NaClO4	20°C	0.10M	U		K1=2.88 B3=6.30	B2=5.02	1964PKb (33493)	377
Nd+++	gl	NaClO4	25°C	0.50M	U		K1=2.54	B2=4.32	1964SPa (33494)	378
Nd+++	gl	NaClO4	25°C	2.0M	U		K1=2.62 K3=1.40	B2=4.67	1961CCa (33495)	379

****

C4H8O4 HL CAS 21620-60-0 (2326)
2,3-Dihydroxy-2-methylpropanoic acid; HO.CH2.C(OH)(CH3).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	KNO3	25°C	0.10M	C		K1=2.96 K3=1.49	B2=5.14	1975PFb (33683)	380

****

C4H8O5 HL CAS 56309-80-9 (2365)
2,3-Dihydroxy-2-hydroxymethylpropanoic acid; HO.CH2.C(CH2.OH)(OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	EMF	KNO3	25°C	0.10M	U		K1=3.01 K3=1.60	B2=5.35	1976PKb (33707)	381
Nd+++	gl	NaClO4	25°C	0.50M	U		K1=2.81 B3=6.36	B2=4.62	1964SPa (33708)	382

****

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
Nd+++	gl	KNO3	25°C	0.10M	U	T	K1=5.01		1978SSb (33920)	383

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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

---

Nd+++ gl KNO3 25°C 0.0 M T H K1=5.15 2003MBa (34316) 384
K(Nd+HL=NdL+H)=-4.03
Extrapolated from data for I=0.07-0.32 M KNO3. DH(K1)=-124.7 kJ mol-1, DS(K1)=-319.8 J K-1 mol-1; DH(Nd+HL)=-72.1, DS(Nd+HL)=-319.1.

Nd+++ gl NaClO4 25°C 0.20M U K1=5.03 B2= 9.68 1996PPa (34317) 385

****

C4H11O4P HL (4276)
Diethylphosphoric acid; (C2H5O)2.PO.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	oth	oth/un	25°C	dil	U		K1=1.47		1971MGb (35263)	386

Estimated

Nd+++ kin none 25°C 0.00 M K1=2.02 1966SSb (35264) 387

****

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
Nd+++	EMF	NaClO4	25°C	100%	C	H	K1=5.90	B2=10.11	2000CDa (35799)	388

Medium: DMF, 0.10 M Et4N[CF3SO3]. Method: Ag/Ag+ electrode.
By calorimetry: DH(K1)=-61.6, DH(B2)=-109.9 kJ mol-1.

Nd+++ ISE non-aq 25°C 100% C H K1=2.76 B2=5.50 1993CCb (35800) 389
Medium: DMSO, 0.1 M Et4NClO4. Method: Ag+ ISE. By calorimetry, DH(K1)=-34.8 kJ mol-1, DS=-64; DH(B2)=-83.4, DS-174.

****

C4H14N2O6P2 H2L EDDPO CAS 1733-49-9 (2435)
1,2-Diaminoethane-N,N'-bis(methylenephosphonic) acid; (H2O3P.CH2.NH.CH2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	KCl	25°C	0.10M	U				1965DKb (35890)	390

K(Nd+HL)=8.31

****

C5H2O5 H2L Croconic acid CAS 488-86-8 (1643)
4,5-Dihydroxycyclopent-4-ene-1,2,3-trione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	cal	NaClO4	25°C	0.10M	U	H	K1=3.23	B2=4.43	1978COa (35946)	391

DH(K1)=2.63 kJ mol-1, DS=70.6; DH(K2)=3.22, DS=25.1

****

C5H4NO2Cl H2L CAS 53223-89-9 (5916)
5-Chloropyridine-2,3-diol;

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  diox/w 35°C  50%  U        K1=7.45        1984SSd (36034) 392
********************************************************************************
C5H4N2O2               HL                     CAS 98-97-5  (1879)
Pyrazine-2-carboxylic acid; cyclo(-CH:CH.N:C(COOH).CH:N-)
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      EMF NaClO4 25°C  1.0M C        K1=2.77   B2= 4.78  1983KKb (36062) 393
                                         B3=6.27
Method: Pt/quinhydrone electrode.
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M U        K1=2.01   B2=3.40   1969RFa (36261) 394
********************************************************************************
C5H4O3                 HL    2-Furoic acid    CAS 88-14-2  (2492)
Furan-2-carboxylic acid; C4H3O.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M U        K1=1.85   B2=3.02   1969RFa (36297) 395
********************************************************************************
C5H4O3                 HL                     CAS 488-93-7  (1166)
Furan-3-carboxylic acid; C4H3O.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      cal NaClO4 25°C 2.00M U   H    K1=1.61        1976YCa (36308) 396
DH=6.99 kJ mol-1 and DS=53.97 J mol-1 K-1.
********************************************************************************
C5H5NO                  L                     CAS 695-59-7  (397)
Pyridine N-oxide ; C5H4N(O)
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      sp  non-aq 25°C 100%  U                        1984BIa (36718) 397
                                        K(NdCl3+L)=3.4
                                        K(NdCl3L+L)=3.1
                                        K(NdCl3L2+L)=2.9
Medium: propanol
********************************************************************************
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
Nd+++	gl	diox/w	25°C	50%	U		K1=7.57	1970GDa (36794)	398

Medium: 50% dioxan, 0.1 M NaClO4

****

C5H5O3F3 HL (7056)

2-Oxa-6-trifluorohexa-3,5-dione; CH3.O.CO.CH2.CO.CF3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	diox/w	25°C	50%	M	I	K1=5.28 B2=10.07 K3=4.42	1994SSa (37068)	399

Medium: 50% dioxan, I=0 corr. At 35 C: K1=5.26, K2=4.65, K3=4.14

****

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
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=5.21 K(Nd(EDTA)+L)=4.30	1986LSb (37364)	400
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=5.26 K(Nd(edta)+L)=4.32	1985LSf (37365)	401

****

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
Nd+++	gl	KCl	25°C	0.20M	U		K1=2.95 K(Nd+HL)=1.98	1989MFa (37430)	402
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=4.34 K(Nd(EDTA)+L)=4.10	1986LSb (37431)	403
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=4.38 K(Nd(edta)+L)=4.13	1985LSf (37432)	404
Nd+++	sol	oth/un	25°C	1.0M	U		K1=3.79	1984KPf (37433)	405

in 1.0 M HCl

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	NaClO4	30°C	0.10M	U	M	B(NdLA)=7.03 K(NdL+A)=2.93 K(NdA+L)=3.26	1984SHc (37434)	406

H3A is carboxymethylthiosuccinic acid.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	NaClO4	30°C	0.10M	M	M	K1=3.77	1976SJa (37435)	407

```
Nd+++      oth NaClO4 25°C  1.0M U        K1=2.00        1972STd (37436) 408
                                         B(NdHL)=6.37
                                         B(NdH2L2)=12.53
**************************************************************************
C5H7NO3                HL                          (4313)
Isonitrosoacetylacetone; HO.N:CH.CO.CH2.CO.CH3
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Nd+++      gl  diox/w 20°C  50%  U        K1=4.17   B2=7.39   1971MAf (37530) 409
Medium: 50% v/v dioxan, 0.1 M NaClO4
**************************************************************************
C5H7NO4                HL                          (6083)
2-Acrylamidoglycolic acid; CH2:CH.CO.NH.CH(OH).COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Nd+++      gl  NaNO3  25°C 0.50M C        K1=2.61        1977DPa (37540) 410
                                         B(NdH-1L)=-4.55
                                         B(NdH-2L2)=-8.87
                                         B(Nd2H-2L2)=-4.92
**************************************************************************
C5H8N2O3              H2L                          (4317)
Methylacetylglyoxime; CH3.C(:N.OH).C(:N.OH).CO.CH3
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Nd+++      gl  diox/w 20°C  50%  U        K1=5.30   B2=9.60   1971MAf (37707) 411
**************************************************************************
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
--------------------------------------------------------------------------
Nd+++      sp  alc/w  18°C  60%  U        K1=5.93   B2=10.40  1998ZBa (38036) 412
                                         K3=3.10
Medium: 60% EtOH/H2O, 0.1 M NaClO4
--------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 0.10M U        K1=5.38   B2=9.48   1995PAa (38037) 413
                                         K3=3.16
--------------------------------------------------------------------------
Nd+++      gl  diox/w 30°C  75%  U        K1=7.00   B2=12.95  1979MBc (38038) 414
                                         K3=4.81
--------------------------------------------------------------------------
Nd+++      gl  NaClO4 20°C 0.10M U    M                  1973TZa (38039) 415
                                         K(Nd(EDTA)+L)=3.52
--------------------------------------------------------------------------
Nd+++      gl  R4N.X  25°C 0.10M U    M                  1972FGa (38040) 416
                                         K(Nd(EDTA)+L)=2.64
Medium: NH4Cl. By spectroscopy, K=2.53, by distribution, K=2.94
```

```
------------------------------------------------------------------------------
Nd+++      gl  alc/w    ?   50%  U  I     K1=6.50        1971KOa (38041) 417
Medium: 5-80% MeOH, 0.005 NdCl3. K1(5%)=5.50, K1(80%)=7.72
------------------------------------------------------------------------------
Nd+++      EMF diox/w 25°C  25%  U  I     K1=5.88        1968RKa (38042) 418
Medium: 5-50% dioxan, 0.02 M
K1(5%)=5.47, K1(40%)=6.48, K1(50%)=7.00
------------------------------------------------------------------------------
Nd+++      EMF alc/w  25°C  40%  U  I     K1=6.31        1968RKa (38043) 419
Medium: 5-60% MeOH, 0.02 M
K1(5%)=5.58, K1(20%)=5.88, K1(60%)=6.85
------------------------------------------------------------------------------
Nd+++      gl  mixed  30°C  67%  U        K1=6.84   B2=12.46  1964DBb (38044) 420
                                         K3=4.64
Medium: 67% acetone, 0.1 M NaClO4
------------------------------------------------------------------------------
Nd+++      gl  oth/un 30°C 0.10M U        K1=5.30   B2=9.40   1960GFa (38045) 421
                                         K3=3.2
------------------------------------------------------------------------------
Nd+++      gl  mixed    ?   75%  U        K1=6.91   B2=12.56  1957DBb (38046) 422
                                         K3=4.54
Medium: 75% acetone
------------------------------------------------------------------------------
Nd+++      gl  oth/un 30°C  0.0  U        K1=5.6    B2=9.9    1955IFa (38047) 423
                                         K3=3.2
******************************************************************************
C5H8O4               H2L                     CAS 595-46-0  (1144)
Dimethylmalonic acid; HOOC.C(CH3)2.COOH
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Nd+++      gl  NaClO4 30°C 0.10M M    M   K1=4.95   B2= 7.63  1984SHb (38213) 424
                                         B(NdLA)=7.78
                                         K(NdL+A)=4.40
                                         K(NdA+L)=2.45
                                         B(NdLB)=8.11
K(NdL+B)=4.34, K(NdB+L)=2.78; B(NdLC)=6.80, K(NdL+C)=4.38, K(NdC+L)=1.47;
H2A is succinic acid, H2B is itaconic acid, H2C is chlorosuccinic acid.
------------------------------------------------------------------------------
Nd+++      gl  NaClO4 30°C 0.10M M    M                  1984SHb (38214) 425
                                         B(NdLA)=7.67
                                         K(NdL+A)=4.45
                                         K(NdA+L)=2.34
                                         B(NdLB)=7.38
K(NdL+B)=4.17, K(NdB+L)=2.05. H2A is thiodiethanoic acid,
H2B is thiodipropanoic acid.
------------------------------------------------------------------------------
Nd+++      gl  NaClO4 30°C 0.10M U    M                  1984SHc (38215) 426
                                         B(NdLA)=8.58
                                         K(NdL+A)=4.48
```

K(NdA+L)=3.63
H3A is carboxymethylthiosuccinic acid.
****
C5H8O4 H2L CAS 601-75-2 (479)
Ethylpropanedioic acid; HOOC.CH(C2H5).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl KCl 25°C 0.20M U K1=3.01 1989ZPa (38246) 427
In 70.4% v/v EtOH/H2O: K1 = 6.05

Nd+++ gl NaClO4 30°C 0.10M U M 1984SHc (38247) 428
B(NdLA)=8.56
K(NdL+A)=4.46
K(NdA+L)=3.46
H3A is carboxymethylthiosuccinic acid.
****
C5H8O4 H2L CAS 498-21-5 (2234)
Methylsuccinic acid; HOOC.CH2.CH(CH3).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaClO4 25°C 0.10M U K1=3.26 B2=5.01 1970RFa (38266) 429
****
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
---
Nd+++ gl NaClO4 25°C 0.20M U M K1=4.05 1986LSb (38334) 430
K(Nd(EDTA)+L)=3.37

Nd+++ gl NaClO4 25°C 0.20M U M K1=4.05 1985LSf (38335) 431
K(Nd(edta)+L)=3.42

Nd+++ gl NaClO4 25°C 0.20M U M K1=4.05 1984LSd (38336) 432
K(Nd(edta)+L)=3.37

Nd+++ sp oth/un ? ? U K1=6.9 1957VIb (38337) 433
****
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
---
Nd+++ gl KCl 24°C 0.20M U K1=3.71 1966DDa (38432) 434
****
C5H9NO2 HL Proline CAS 147-85-3 (44)
Pyrrolidine-2-carboxylic acid; C4H8N.COOH

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M U T H    K1=5.32        1984SGb (38632) 435
35 C: K1=5.24, 45 C: 5.15. DH=-26.7 kJ mol-1, DS=13.3 J K-1 mol-1
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M U        B2=5.18        1981ZLa (38633) 436
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  NaCl   37°C 0.15M U        K1=3.73        1997GMa (38743) 437
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M U        B2=4.63        1981ZLa (38744) 438
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  NaCl   37°C 0.15M U        K1=3.94        1991DWb (39103) 439
                                         B(NdHL)=11.27
                                         B(NdH2L)=14.88
--------------------------------------------------------------------------------
Nd+++      vlt KCl    25°C  1.0M C T H    K1=5.30        1983KMb (39104) 440
Method: polarography. Also data for 35 C. DH(K1)=-13.4 kJ mol-1,
DS(K1)=-12.6 J K-1 mol-1.
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M C                       1982PMa (39105) 441
                                         B(NdHL)=11.84
--------------------------------------------------------------------------------
Nd+++      gl  KCl    30°C 0.10M U T H    K1=3.956       1978AGb (39106) 442
Data for 40 C. DH and DS values reported.
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 0.10M U        K1=6.68   B2=11.90  1980MGc (39268) 443
                                         B3=15.55
                                         B(Nd+2OH+L)=17.32
--------------------------------------------------------------------------------
Nd+++      sp  KCl    25°C 0.40M U                       1979MMf (39269) 444
                                         K3=3.35
********************************************************************************
C5H9N3O4S             H2L                   CAS 16907-58-7  (2106)
Thiosemicarbazone-diethanoic acid; H2N.CS.NH.N(CH2.COOH)2
--------------------------------------------------------------------------------
```

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  NaClO4 22°C 0.10M U        K1=3.19        1983BTa (39570) 445
*************************************************************************
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
-------------------------------------------------------------------------
Nd+++      gl  NaClO4 30°C  0.2M U        K1=4.53        1977MSf (39827) 446
-------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M U        B2=7.06        1973TSb (39828) 447
*************************************************************************
C5H10N2O3              HL    Ala-Gly          CAS 687-69-4  (55)
Alanyl-glycine; H2N.CH(CH3).CO.NH.CH2.COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 0.10M U        K1=2.30        1973FMa (39892) 448
*************************************************************************
C5H10N2O3              HL    Gly-DL-Ala       CAS 926-77-2  (66)
Glycyl-DL-alanine; H2N.CH2.CO.NH.CH(CH3).COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 0.10M U        K1=2.30        1973FMa (39941) 449
*************************************************************************
C5H10N2O4              HL    Gly-Ser          CAS 7361-43-5  (281)
Glycyl-serine; H2N.CH2.CO.NH.CH(CH2.OH).COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 0.10M U        K1=2.25        1973FMb (40104) 450
*************************************************************************
C5H10N2O5            H2L                      (8080)
3-Hydroxy-2,4-diaminopentane-1,5-dioic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  KCl    20°C  0.1M U        K1=6.07        1977ABf (40119) 451
*************************************************************************
C5H10O2                HL    n-Valeric acid   CAS 109-52-4  (3027)
Pentanoic acid; CH3(CH2)3.COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      sp  oth/un   ?     ?  U        K1=5.0         1957VIb (40202) 452
*************************************************************************
C5H10O3                HL                     CAS 3739-30-8  (3612)
2-Hydroxy-2-methylbutanoic acid, Methylethylglycolic acid; CH3.CH2.C(OH)(CH3)COOH
```

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.10M U        K1=2.65   B2=4.49   1969PCa (40259) 453
                                         K3=1.32
********************************************************************************
C5H10O3                HL                     CAS 617-31-2  (474)
2-Hydroxypentanoic acid; CH3.CH2.CH2.CH(OH).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C  1.0M U        K1=2.31        1968GCa (40283) 454
********************************************************************************
C5H10O4                HL                     CAS 4767-03-7  (4297)
2,2-Bis(hydroxymethyl)propanoic acid; CH3.C(CH2OH)2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M U        K1=2.37   B2=3.96   1970RDa (40301) 455
                                         K3=1.32
********************************************************************************
C5H10O4                HL                     CAS 19860-56-1  (2327)
2,3-Dihydroxy-2-methylbutanoic acid; CH3.CH(OH).C(OH)(CH3).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.10M C        K1=3.03   B2=5.25   1975PFb (40316) 456
                                         K3=1.38
********************************************************************************
C5H10O5                 L    D-Ribose          CAS 50-69-1  (512)
D-Ribose;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      cal none   25°C  0.0  U   H    K1=1.00        1993MLa (40352) 457
DH(K1)=-12.4 kJ mol-1, TDS=-6.7
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U        K1=5.47   B2= 9.78  1996PPa (40733) 458
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.20M U    M   K1=6.37        1990LSb (40734) 459
                                           K(Nd(phen)+L)=6.05
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U    M   K1=6.52        1986LSb (40735) 460
                                           K(Nd(EDTA)+L)=5.86
--------------------------------------------------------------------------------
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```
Nd+++      gl  NaClO4 25°C 0.20M U    M   K1=6.52        1985LSe (40736) 461
K(Nd(edta)+L)=5.86.
--------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 0.10M U T      K1=3.88        1974BFa (40737) 462
**************************************************************************
C5H11NO2               HL    Nor-Valine       CAS 760-78-1  (689)
2-Aminopentanoic acid; CH3.CH2.CH2.CH(NH2).COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Nd+++      gl  KNO3   27°C 0.10M M TI     K1=5.77        1996ALa (40844) 463
For I = 0.05, K1=5.82; I=0.15, K1=5.55. Also data for 32 and 37 C.
**************************************************************************
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
--------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U        K1=5.13   B2= 9.64  1996PPa (41111) 464
--------------------------------------------------------------------------
Nd+++      gl  NaNO3  25°C 0.10M M  I M   K1=5.12        1995KDd (41112) 465
                                         K(Nd(egta)+L)=3.69
Data for 0.15 and 0.05 M NaNO3. At I=0, K1=5.67, K(Nd(egta)+L)=3.92.
**************************************************************************
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
--------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 0.10M U        K1=6.58        1996ADa (41190) 466
                                         B(NdHL)=13.84
**************************************************************************
C5H12NO4P              HL                    CAS 51276-47-2  (5704)
2-Amino-4-(methylhydroxyphosphoryl)butanoic acid;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Nd+++      gl  NaClO4 23°C 0.10M U        K1=4.26        1990YTa (41445) 467
**************************************************************************
C5H12O5                 L    Xylitol          CAS 87-99-0  (2139)
Xylitol; HO.CH2.HCOH.HOCH.HCOH.CH2.OH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Nd+++      cal NaClO4 25°C  2.0M C   H    K1=0.97        1998BMc (41689) 468
--------------------------------------------------------------------------
Nd+++      nmr oth/un 39°C    ?  U                       1977REa (41690) 469
                                         K1eff=0.60
                                         K2eff=-0.30
**************************************************************************
```

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
Nd+++	gl	NaClO4	20°C	0.10M	U		K1=4.83		1987EGb (42569)	470
Soln. contains 0.5 M t-butanol										
Nd+++	gl	KNO3	25°C	0.20M	U	M	K1=4.36		1987LSc (42570)	471
K(Nd(nta)+L)=4.10, K(Nd(edta)+L)=4.00.										
Nd+++	gl	NaClO4	25°C	0.50M	U		K1=3.51	B2=6.49	1977GGb (42571)	472
							B3=8.45			
Nd+++	gl	KNO3	25°C	0.10M	U		K1=3.88	B2=7.24	1968PIa (42572)	473
							K3=2.74			
							K4=2.04			
Nd+++	gl	NaClO4	25°C	2.0M	U		K1=3.79	B2=6.65	1965YCa (42573)	474
Nd+++	gl	oth/un	25°C	0.50M	U	I	K1=3.69	B2=6.80	1964MTa (42574)	475
							B3=9.33			
I=0.02:K1=4.27, B2=7.91, B3=10.95										
Nd+++	gl	KNO3	25°C	0.10M	U		K1=3.88	B2=6.92	1964THb (42575)	476
							B3=10.0			

****

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
Nd+++	gl	NaClO4	25°C	0.20M	U		K1=2.03		1973FDa (42678)	477

****

C6H5NO3 HHL CAS 824-40-8 (878)
Pyridine-2-carboxylic acid N-oxide (Picolinic acid N-oxide); C5H4N(O)COO

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	NaClO4	25°C	2.0M	U		K1=2.91	B2=5.06	1965YCa (42838)	478

****

C6H5NO4 H2L 4-Nitrocatechol CAS 3316-09-4 (890)
1,2-Dihydroxy-4-nitrobenzene; O2N.C6H3(OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	NaNO3	25°C	0.0	U	M	K1=9.51		1996KDb (42937)	479
							K(Nd(egta)+L)=5.56			
Extrapolated from data for I=0.05-0.15 M NaNO3.										

Nd+++ gl KNO3 25°C 0.10M U K1=8.71 B2=15.14 1981BDa (42938) 480
****
C6H5NO4 H2L CAS 3163-07-3 (2711)
2,4-Dihydroxy-1-nitrobenzene; O2N.C6H3(OH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ sp KCl 25°C 0.10M M I K1=6.08 1989PEa (42957) 481
****
C6H5O4Br L CAS 40838-32-2 (1084)
6-Bromo-5-hydroxy-2-(hydroxymethyl)-4H-pyran-4-one;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ sp KCl 25°C 0.10M U K1=5.08 1987PLa (43113) 482
****
C6H5O4Cl HL Chlorokojic aci (3086)
3-Chloro-5-hydroxy-2-hydroxymethyl-4-pyrone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl oth/un 30°C 0.10M U K1=5.73 B2=10.65 1972DSd (43135) 483
****
C6H5O4I L (1085)
6-Iodo-5-hydroxy-2-hydroxymethyl-4H-pyran-4-one;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ sp KCl 25°C 0.10M U K1=5.10 1987PLa (43155) 484
****
C6H6O2 H2L Catechol CAS 120-80-9 (534)
1,2-Dihydroxybenzene, pyrocatechol; HO.C6H4.OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaNO3 25°C 0.0 U M K1=9.68 1996KDb (43798) 485
K(Nd(egta)+L)=5.67
Extrapolated from data for I=0.05-0.15 M NaNO3.

Nd+++ gl NaClO4 25°C 0.20M U K1=9.84 1996PJa (43799) 486

Nd+++ gl NaClO4 25°C 0.20M U M K1=9.10 1986LSb (43800) 487
K(Nd(EDTA)+L)=7.00

Nd+++ gl NaClO4 25°C 0.20M U M K1=9.19 1985LSf (43801) 488
K(Nd(edta)+L)=7.11

Nd+++ gl NaClO4 28°C 0.20M U M K1=9.10 1982LSa (43802) 489
K(Nd(edta)+L)=7.00

Nd+++ gl NaClO4 25°C 0.10M U T K1=10.27 B2=19.25 1979NDa (43804) 491
At 45 C, K1=9.40, K2=8.63. Medium ionic strength not stated.

Nd+++ gl NaClO4 30°C 0.20M U M K1=8.88 1978MSe (43805) 492
K(NdL+NTA)=6.58
K(NdL+HEDTA)=5.36
K(NdL+EDTA)=4.98

Nd+++ EMF NaCl 25°C 0.10M U K1=10.50 1969PKe (43806) 493
****
C6H6O2 H2L Resorcinol CAS 108-46-3 (3645)
1,3-Dihydroxybenzene; HO.C6H4.OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaClO4 25°C 0.20M U M K1=5.35 1986LSb (43881) 494
K(Nd(EDTA)+L)=2.50

Nd+++ gl NaClO4 25°C 0.20M U M K1=5.40 1985LSf (43882) 495
K(Nd(edta)+L)=2.54

Nd+++ gl NaClO4 28°C 0.20M U M K1=5.35 1982LSa (43883) 496
K(Nd(edta)+L)=2.50
****
C6H6O3 H3L Pyrogallol CAS 87-66-1 (696)
1,2,3-Trihydroxybenzene; C6H3(OH)3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaClO4 25°C 0.20M U K1=10.42 1996PJa (43972) 497

Nd+++ gl NaClO4 30°C 0.20M U M K1=10.12 1978MSk (43973) 498
K(Nd(nta)+L)=5.84
****
C6H6O3 H3L Phloroglucinol CAS 6099-90-7 (2525)
1,3,5-Trihydroxybenzene; C6H3(OH)3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaClO4 25°C 0.20M U M K1=4.10 1986LSb (44018) 499
K(Nd(EDTA)+L)=2.65

Nd+++ gl NaClO4 25°C 0.20M U M K1=4.06 1985LSf (44019) 500
K(Nd(edta)+L)=2.64

Nd+++ gl NaClO4 28°C 0.20M U M K1=4.00 1982LSa (44020) 501
K(Nd(edta)+L)=2.60

****

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
Nd+++	gl	NaClO4	30°C	0.10M	U	M	K1=5.79	B2=10.61	1989NOb (44095)	502
							B(NdLA)=12.50			
							K(NdA+L)=6.00			
							K(NdB+L)=5.26			
							K(NdC+L)=4.69			

H2A=iminodiacetic acid, H2B=hydroxyethyliminodiethanoic acid, H3C=nitrilo-triethanoic acid

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	NaClO4	30°C	0.10M	U		K1=6.22	B2=11.14	1970DSc (44096)	503
							K3=3.54			

****

C6H6O4 HL Kojic acid CAS 501-30-4 (1800)
5-Hydroxy-2-(hydroxymethyl)-4H-pyran-4-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	NaClO4	30°C	0.10M	U	M	K1=5.23	B2=9.84	1989NOb (44233)	504
							B(NdLA)=12.06			
							K(NdA+L)=5.56			
							K(NdB+L)=4.77			
							K(NdC+L)=4.32			

H2A=iminodiacetic acid, H2B=hydroxyethyliminodiethanoic acid, H3C=nitrilo-triethanoic acid

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	sp	KCl	25°C	0.10M	C	I	K1=5.743	1987PEa (44234)	505

In 0.086 M KCl, K1=5.766.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	oth/un	30°C	0.10M	U		K1=5.80	B2=10.63	1972DSd (44235)	506
							K3=4.03			

****

C6H6O6 H3L cis-Aconitic CAS 585-84-2 (3064)
cis-1,2,3-Propenetricarboxylic acid, cis-Aconitic acid; HOOC.CH:C(COOH)CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	NaCl	20°C	0.10M	U		K1=4.40		1986SKb (44299)	507
							K(Nd+HL)=3.34			

****

C6H6O6S H4L CAS 29714-59-8 (3688)
2,3,4-Trihydroxybenzenesulfonic acid; (HO)3.C6H2.SO3H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	sp	oth/un	?	1.0M	U		K1=5.72	1966TKb (44309)	508

Medium: KOH

****

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
Nd+++	gl	KNO3	25°C	0.10M	U	IH	K1=14.28	B2=27.29	1980BDd (44476)	509

Data for I=0.05-0.2 M and for I=0.10 M (35 C). Also DH and DS values.

Nd+++	gl	NaClO4	25°C	0.50M	C		K1=11.88	B2=19.63	1976LAb (44477)	510
							B(NdHL2)=27.99			

Nd+++	gl	NaClO4	25°C	0.10M	U		K1=13.69		1970SSi (44478)	511
							K(Nd+HL)=5.61			

****

C6H7N L Aniline CAS 62-53-3 (583)

Aminobenzene, aniline; C6H5.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	sp	non-aq	25°C	100%	U	HM			1982KNa (44875)	512
							K(NdA3+L)=2.41			

Medium: CCl4. HA=dipivaloylmethane

****

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
Nd+++	gl	mixed	25°C	50%	U	I	K1=3.72	B2=6.87	1969BCa (44935)	513

Medium: 50% DMSO, 0.12 M NaClO4. In 0.12 M NaClO4, 50% dioxan: K1=4.62, K2=3.67. Medium: 0.12 NaClO4), 50% EtOH: K1=4.31, K2=3.18

****

C6H7N3O L Isonicotinic hy CAS 54-85-3 (1267)

Pyridine-4-carboxylic acid hydrazide; C5H4N.CO.NH.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	NaClO4	15°C	0.10M	U		K1=8.85	1980ZMa (45129)	514

****

C6H7O3F3 HL (7057)

3-Oxa-7-trifluorohepta-4,6-dione; CH3CH2.O.CO.CH2.CO.CF3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	diox/w	25°C	50%	M	I	K1=5.49	B2=10.52	1994SSa (45189)	515
							K3=4.84			

Medium: 50% dioxan, I=0 corr. At 35 C: K1=5.36, K2=4.95, K3=4.53

****

C6H8N2 L CAS 100-63-0 (8355)
Phenylhydrazine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	vlt	KCl	25°C	1.0M	C	T H	K1=3.42		1983KMc (45379)	516

Method: polarography. Also data for 35 C. DH and DS values.
Medium pH 2.4.

****

C6H8O4 H2L CAS 2583-25-7 (958)
2-Allylpropanedioic acid; HOOC.CH(CH2.CH:CH2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	KCl	25°C	0.20M	U		K1=3.57		1989ZPa (45472)	517

In 70.4% v/v EtOH/H2O: K1 = 5.52

****

C6H8O6 H2L Ascorbic acid CAS 50-81-7 (285)
Ascorbic acid (Vitamin C);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	NaClO4	25°C	2.00M	U	IH			1988HSa (45650)	518
							K(Nd+HL)=1.54			

DH=2.7 kJ mol-1, DS=38.7 J K-1 mol-1

Nd+++	sp	oth/un	?	0.30M	U		K1=8.65		1970PEb (45651)	519

****

C6H8O6S H3L CAS 99-68-3 (3692)
(Carboxymethylthio)butanedioic acid; HOOC.CH(S.CH2.COOH).CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	NaClO4	25°C	0.10M	U	TIH	K1=4.10	B2=7.35	1986AJc (45704)	520

DH(K1)=-4.2 kJ mol-1, DS=61.8 J K-1 mol-1; DH(K2)=-6.1, DS=41.4

Nd+++	gl	NaClO4	30°C	0.10M	U	IH	K1=4.10	B2=7.35	1983ASa (45705)	521

DH(K1)=4.4 kJ mol-1, DH(K2)=6.2

Nd+++	gl	KNO3	25°C	0.05M	M		K1=4.82		1975DPb (45706)	522

****

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
Nd+++	gl	NaClO4	25°C	0.10M	U		K1=7.66	B2=11.46	1981SBa (46196)	523
							B(NdH2L)=12.43			
							B(NdHL)=10.57			
							B(NdHL2)=15.66			

```
                                        B(NdL(OH))=7.38
B(Nd3(OH)4L4)=35.33
--------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.10M U    M                  1975TDa (46197) 524
                                        B(Nd(IDA)L)=11.0
--------------------------------------------------------------------------
Nd+++      dis NaClO4 25°C 0.15M U                       1973HHc (46198) 525
                                        K(Nd+HL+L)=10.90
--------------------------------------------------------------------------
Nd+++      gl  alc/w  25°C  25%  U  I     K1=8.79        1972BKd (46199) 526
Medium: EtOH/H2O, 0.05 M (NaCl,NaClO4).  0%, K1=7.96, 50%, K1=9.66
--------------------------------------------------------------------------
Nd+++      sp  KCl      ?  0.10M U        K1=8.2         1970AMb (46200) 527
--------------------------------------------------------------------------
Nd+++      sol oth/un 25°C  0.0  U  I     K1=8.87   B2=12.92  1965SKc (46201) 528
                                        Kso=-12.24
At I=0.1: K1=7.59, B2=11.6, Kso=-10.89
**************************************************************************
C6H8O7                H3L                          (6770)
Carboxymethoxysuccinic acid; HOOC.CH2.O.CH(COOH)CH2.COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Nd+++      EMF NaClO4 25°C 1.00M U        K1=5.93   B2=9.75   1991WPb (46333) 529
**************************************************************************
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
--------------------------------------------------------------------------
Nd+++      ISE NaClO4 25°C 0.10M C  I     K1=11.05       1997LBb (46932) 530
Method: Cu ISE and competitive complexation by Cu. Data for 0.1-5.0 M.
At I=0.0 M, K1=12.87.
--------------------------------------------------------------------------
Nd+++      gl  alc/w  30°C  50%  C        K1=10.49       1994SOa (46933) 531
Medium: 50% v/v MeOH/H2O, 0.10 M NaClO4.
--------------------------------------------------------------------------
Nd+++      gl  NaCl   37°C 0.15M U        K1=10.05  B2=17.99  1992FDa (46934) 532
                                        B(CaNdL2)=20.68
--------------------------------------------------------------------------
Nd+++      vlt KCl    32°C  1.0M C                      1981PCb (46935) 533
                                        K(Nd+HL)=4.78
Method: polarography. Medium pH 2.75.
--------------------------------------------------------------------------
Nd+++      ISE KNO3   25°C 0.10M C        K1=11.23       1980NSf (46936) 534
Competitive method using Cd ion-selective electrode.
--------------------------------------------------------------------------
Nd+++      gl  KNO3   20°C  1.0M C        K2=7.86        1978GHb (46937) 535
--------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 1.00M U        K1=11.10       1978MGa (46938) 536
```

```
--------------------------------------------------------------------------------
Nd+++      gl  diox/w 30°C  50%  U    M                  1978SGf (46939) 537
                                        K(NdL+A)=5.01
HA=tropolone
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.50M U        K1=10.71       1977GGb (46940) 538
--------------------------------------------------------------------------------
Nd+++      EMF KCl    25°C  1.0M U    M                  1977GMa (46941) 539
                                        K(NdA+L)=5.55
                                        K(NdA+H2L)=2.24
                                        K(NdA+H3L)=2.19
                                        K(NdA+H4L)=4.10
Method: Pt/H2 electrode. H3A is N-hydroxyethyl-1,2-diaminoethane-N,N',N'-
triethanoic acid.
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.10M U    M                  1974TDa (46942) 540
                                        K(NdL+Citrate)=3.2
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   20°C 0.10M U    M                  1974TDa (46943) 541
                                        K(NdL+Citrate)=3.7
--------------------------------------------------------------------------------
Nd+++      cal KNO3   20°C 0.10M U   HM                  1971GKb (46944) 542
                                        K(NdA+L)=4.77
H4A=EDTA.  DH(NdA+L)=-17.36 kJ mol-1, DS=-32.2 J K-1 mol-1.
DH(NdLA)=-32.5 kJ mol-1, DS=299 J K-1 mol-1
--------------------------------------------------------------------------------
Nd+++      gl  oth/un 20°C 0.20M U                       1970VMa (46945) 543
                                        B(NdL(OH))=6.08
--------------------------------------------------------------------------------
Nd+++      gl  KCl    20°C 0.10M U        K1=11.11  B2=19.54  1965ANb (46946) 544
--------------------------------------------------------------------------------
Nd+++      vlt KNO3   20°C 0.10M U      T K1=11.09       1964PCa (46947) 545
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.10M U T H  T K1=11.26  B2=19.73  1962MFb (46948) 546
15 C: K1=11.28, K2=8.59; 20 C: 11.25, 8.51; 30 C: 11.30, 8.45; 35 C: 11.27,
8.37; 40 C: 11.29, 8.34. DH(K1)=2.8 K J mol-1,DS=225, DH(K2)=-15.8, DS=109
--------------------------------------------------------------------------------
Nd+++      sp  oth/un 19°C 0.02M U        K1=10.49  B2=19.47  1961AVa (46949) 547
--------------------------------------------------------------------------------
Nd+++      vlt KNO3   20°C 0.10M U                       1957NOa (46950) 548
                                        B(Nd2L3)=36.5
--------------------------------------------------------------------------------
Nd+++      sp  oth/un   ?     ?  U        K1=11.00       1957VIb (46951) 549
--------------------------------------------------------------------------------
Nd+++      vlt KNO3   20°C 0.10M U      T K1=11.11       1956SGa (46952) 550
********************************************************************************
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
```

```
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   35°C 0.10M U                      1987RRc (47590) 551
                                    K(Nd+HL)=3.79
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   35°C 0.10M U    M                 1986RMb (47591) 552
                                    K(Nd+HL)=3.79
K(Nd+HL+cytidine)=8.54
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 37°C 3.00M U      T K1=3.95   B2=8.12   1971JWa (47592) 553
                                    B(NdHL)=11.20
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 3.00M U      T K1=4.40   B2=6.59   1970JWa (47593) 554
                                    B(NdHL)=11.77
********************************************************************************
C6H10O2                HL                      CAS 3002-24-2  (2742)
2,4-Hexanedione; CH3.CO.CH2.CO.CH2.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  mixed  30°C  67%  U        K1=6.94   B2=13.18  1964DBb (47932) 555
                                    K3=5.01
Medium: 67% acetone, 0.1 M NaClO4
********************************************************************************
C6H10O2S               HL                        (4370)
Ethyl thioacetoacetate; CH3.CS.CH2.CO.OCH2.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  mixed  30°C  75%  U        K1=7.11   B2=13.03  1970DRa (47965) 556
                                    K3=5.26
Medium: 75% acetone, 0.1 M
********************************************************************************
C6H10O3                HL                      CAS 16841-19-3  (3649)
1-Hydroxycyclopentanecarboxylic acid; HO.C5H8.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M U        K1=2.666  B2=4.63   1966PRb (47993) 557
                                    K3=1.08
********************************************************************************
C6H10O3                HL                      CAS 141-97-9  (3068)
Ethyl acetoacetate; CH3.CO.CH2.CO2.C2H5
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  mixed  30°C  75%  U        K1=6.08   B2=11.38  1969DRa (48016) 558
Medium: 75% acetone, 0.1 M NaClO4
********************************************************************************
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
Nd+++	gl	NaClO4	30°C	0.10M	M	M	K1=2.90		1976SJa (48079)	559

****

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
Nd+++	gl	NaClO4	30°C	0.10M	U	M			1984SHc (48188)	560
							B(NdLA)=7.77			
							K(NdL+A)=3.67			
							K(NdA+L)=4.56			

H3A is carboxymethylthiosuccinic acid.

****

C6H10O6 H2L CAS 23243-68-7 (242)
1,2-Bis(carboxymethoxy)ethane; HOOC.CH2.O.CH2.CH2.O.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	oth	NaClO4	25°C	0.10M	U		K1=5.10		1984AFa (48346)	561

Laser excitation spectroscopy, competition method.

Nd+++	gl	NaClO4	25°C	1.00M	C	H	K1=4.92	B2=7.96	1974GGa (48347)	562
							B3=8.63			
							B(NdHL2)=9.86			

****

C6H10O8 H2L Saccharic acid CAS 87-73-0 (1191)
D-2,3,4,5-Tetrahydroxy-1,6-hexanedioic acid, Glucaric acid; HOOC.(CHOH)4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	NaClO4	25°C	0.10M	U	M	K1=4.53		1997PPb (48485)	563
							K(Nd(edta)+L)=4.05			

****

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
Nd+++	gl	alc/w	30°C	50%	C		K1=9.78		1994SOa (48764)	564

Medium: 50% v/v MeOH/H2O, 0.10 M NaClO4.

Nd+++	sp	KCl	20°C	1.00M	U		K1=7.89	B2=15.11	1977MFa (48765)	565
Nd+++	gl	KNO3	20°C	1.00M	U		K1=8.12	B2=15.06	1974CMd (48766)	566
							K(NdL2(OH)+H)=10.75			
Nd+++	sp	KCl	?	1.00M	U		K1=8.36	B2=15.56	1971RNa (48767)	567

K(Nd+HL)=2.28
K(NdL+HL)=2.03

Nd+++ oth NaNO3 20°C 0.10M U M K1=8.65 B2=15.85 1966JMc (48768) 568
Method: paper electrophoresis. Mixed complexes with HEDTA

Nd+++ gl KCl 25°C 0.10M U K1=8.12 B2=14.68 1965DTa (48769) 569

Nd+++ gl KNO3 25°C 0.10M U K1=8.80 B2=15.93 1963TLa (48770) 570

****

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
Nd+++	gl	KCl	25°C	0.10M	U		K1=2.15		1973FMa (48981)	571

****

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
Nd+++	gl	R4N.X	25°C	0.10M	C		K1=8.06		1988CCb (49255)	572
Nd+++	gl	NaClO4	25°C	1.00M	C	H	K1=7.98	B2=13.59	1974GGa (49256)	573
							B(NdH2L)=17.60			
Nd+++	sp	KCl	21°C	1.00M	U		K1=6.32	B2=11.13	1974KNb (49257)	574
							K(Nd+HL)=3.57			
Nd+++	gl	KNO3	25°C	0.10M	U		K1=8.30	B2=13.90	1970SMf (49258)	575
Nd+++	sp	KNO3	25°C	0.23M	U		K1=7.89	B2=14.39	1970SMf (49259)	576
Nd+++	gl	KNO3	25°C	0.10M	U		K1=8.06	B2=13.69	1962THb (49260)	577

****

C6H12O2 HL CAS 142-62-1 (964)
Hexanoic acid; CH3.(CH2)4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	NaCl	20°C	0.10M	U		K1=2.50		1986GKb (49427)	578

****

C6H12O3 HL DiEtGlycolic CAS 3639-21-2 (421)
2-Ethyl-2-hydroxybutanoic acid; (C2H5)2.C(OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	EMF	NaClO4	25°C	1.0M	U		K1=2.28	B2=3.89	1965TVa (49462)	579
							K3=1.21			

K4=0.94

Method: quinhydrone electrode

****

C6H12O3 HL CAS 92841-97-9 (3658)

2-Hydroxy-2,3-dimethylbutanoic acid; CH3.CH(CH3).C(OH)(CH3).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	EMF	NaClO4	25°C	1.0M	U		K1=2.57 K3=1.2 K4=1.1	B2=4.28	1965TVa (49475)	580

Method: quinhydrone electrode

****

C6H12O3 HL (3662)

2-Hydroxy-2-methylpentanoic acid; (Methylpropylglycolic acid)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	NaClO4	25°C	1.00M	U		K1=2.39 K3=1.25 K4=0.97	B2=4.20	1970GNd (49482)	581
Nd+++	EMF	NaClO4	25°C	1.0M	U		K1=2.38 K3=1.17 K4=1.06	B2=4.23	1964EVa (49483)	582

Method: quinhydrone electrode.

****

C6H12O4 HL CAS 1112-33-0 (1246)

2,3-Dihydroxy-2,3-dimethylbutanoic acid; (CH3)2.C(OH).C(OH)(CH3).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	KNO3	25°C	0.10M	U		K1=3.37 K3=1.32	B2=5.57	1979PPa (49497)	583

****

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
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=3.40 K(Nd(EDTA)+L)=2.80		1986LSb (49739)	584
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=3.43 K(Nd(edta)+L)=2.85		1985LSf (49740)	585
Nd+++	EMF	diox/w	?	40%	U	I	K1=4.66		1968RKa (49741)	586

Medium: 15-60% dioxan, 0.02 M. K1(15%)=3.75, K1(60%)=5.45

Nd+++	sp	alc/w	20°C	80%	U	I	K1=5.26		1967RKa (49742)	587

Medium: 80% MeOH. K1=3.10(0%). By pH: K1=5.2(80%)

Nd+++ sp oth/un 25°C 0.10M U K1=2.9 1967TKa (49743) 588

Nd+++ EMF alc/w 25°C 95% U I K1=7.0 1966KRb (49744) 589

Medium: 95% MeOH. K1=4.76(50%), 5.51(80%), 6.6(90%)

Nd+++ sp oth/un 25°C 0.20M U K1=2.65 1966KTa (49745) 590

Nd+++ gl KCl 25°C 0.20M U K1=2.71 B2=4.70 1963KOc (49746) 591

****

C6H13NO2 HL Isoleucine CAS 73-32-5 (424)

2-Amino-3-methylpentanoic acid; CH3.CH2.CH(CH3).CH(NH2).COOH

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

---

Nd+++ gl NaNO3 25°C 0.10M M M K1=5.72 1996KDd (49909) 592
*K(NdL)=-8.39
*K(Nd(OH)L)=-8.82
K(Nd(egta)+L)=3.92

Data for 0.05-0.15 M NaNO3. At I=0, K1=5.92, K(Nd(egta)+L)=4.04.

Nd+++ gl NaClO4 25°C 0.20M U K1=5.24 B2= 9.23 1987PPa (49910) 593

****

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

---

Nd+++ gl NaNO3 25°C 0.10M M M K1=5.70 1996KDd (50088) 594
*K(NdL)=-8.41
*K(Nd(OH)L)=-8.85
K(Nd(egta)+L)=3.90

Data for 0.05-0.15 M NaNO3. At I=0, K1=5.90, K(Nd(egta)+L)=4.00

Nd+++ gl KNO3 25°C 0.20M U M K1=5.97 1990LSb (50089) 595
K(Nd(phen)+L)=5.70

Nd+++ gl NaClO4 25°C 0.20M U K1=4.93 B2= 8.68 1987PPa (50090) 596

Nd+++ gl NaClO4 25°C 0.20M U M K1=6.03 1986LSb (50091) 597
K(Nd(EDTA)+L)=4.92

Nd+++ gl NaClO4 25°C 0.20M U M K1=6.03 1985LSe (50092) 598

K(Nd(edta)+L)=4.92.

****

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

```
--------------------------------------------------------------------------------
Nd+++      gl  NaNO3  25°C 0.10M M    M   K1=5.61        1996KDd (50187) 599
                                          *K(NdL)=-8.44
                                          *K(Nd(OH)L)=-8.87
                                          K(Nd(egta)+L)=3.88
Data for 0.05-0.15 M NaNO3. At I=0, K1=5.84, K(Nd(egta)+L)=4.06
--------------------------------------------------------------------------------
Nd+++      gl  KCl    20°C 0.20M U        K1=3.56   B2=7.56   1990PLa (50188) 600
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   20°C 0.10M U        K1=5.66   B2=9.75   1982RFa (50390) 601
--------------------------------------------------------------------------------
Nd+++      gl  alc/w  20°C  50%  U  I     K1=6.72        1970KRa (50391) 602
Medium: 0-80% MeOH, 0.03 M KCl.  K1(0%)=5.57, K1(20%)=6.12, K1(80%)=7.8
--------------------------------------------------------------------------------
Nd+++      EMF alc/w  20°C  40%  U  I     K1=6.59        1968KRc (50392) 603
Medium: 0-60% MeOH, 0.05 M.  K1(0%)=5.76, K1(20%)=6.13, K1(60%)=7.25
--------------------------------------------------------------------------------
Nd+++      gl  alc/w  20°C  50%  U  I     K1=6.85        1968KRc (50393) 604
Medium: 0-80% MeOH, 0.03 M KCl.  K1(0%)=5.77, K1(20%)=6.13, K1(60%)=7.26,
K1(80%)=7.94
--------------------------------------------------------------------------------
Nd+++      oth NaNO3  20°C 0.10M U        K1=7.6    B2=13.30  1966JMc (50394) 605
Method: paper electrophoresis
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  NaCl   37°C 0.15M U    M   K1=3.02        1997GMa (50583) 606
                                         B(NdHL)=10.90
                                         B(NdH2AL)=24.67
Ligand is DL-citrulline. HA is L-hydroxyproline.
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 20°C 0.10M U T H    K1=7.12   B2=12.99  1983SDa (50828) 607
30 C: K1=7.02, K2=5.65, 40 C: K1=6.61, K2=5.54
********************************************************************************
C6H18N4                 L    Tren             CAS 4097-89-6  (817)
2,2',2''-Triaminotriethylamine; (H2N.CH2.CH2)3N
--------------------------------------------------------------------------------
```

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      ISE non-aq 25°C 100%  C   H    K1=4.41   B2=5.36   1993CCb (52206) 608
Medium: DMSO, 0.1 M Et4NClO4. Method: Ag+ ISE. By calorimetry, DH(K1)=-57.3
kJ mol-1, DS=-108; DH(B2)=-90, DS=-199.
*************************************************************************
C6H20N2O12P4          H8L    EDTPA            CAS 1429-50-1  (434)
Ethane-1,2-bis(iminobis(methylenephosphonic acid)); ((H2O3PCH2)2NCH2.)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.10M C                         1991SKb (52354) 609
                                     K(NdL+H)=7.19
                                     K(NdHL+H)=6.68
-------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 0.10M U        K1=21.47       1967KDa (52355) 610
                                     K(Nd+HL)=16.77
                                     K(Nd+H2L)=13.05
                                     K(Nd+H3L)=10.43
                                     K(Nd+H4L)=8.04
K(Nd+H5L)=4
*************************************************************************
C7H4N2O7              H2L                      CAS 609-99-4  (400)
3,5-Dinitrosalicylic acid; (O2N)2.C6H2(OH).COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  NaNO3  25°C 0.10M U  I M   K1=5.44        1996KDc (52494) 611
                                     *K(NdL)=-7.41
                                     K(Nd(egta)+L)=4.84
Data for 0.05 and 0.15 M NaNO3. At I=0, K1=5.78, *K(NdL)=-7.62,
K(Nd(egta)+L)=5.18.
-------------------------------------------------------------------------
Nd+++      gl  NaClO4 30°C 0.10M M    M   K1=4.44        1976SJa (52495) 612
                                     B(NdAL)=12.45
                                     K(NdA+L)=1.74
                                     K(NdL+A)=8.00
H2A is 4-hydroxysalicylic acid.
-------------------------------------------------------------------------
Nd+++      gl  oth/un 24°C 0.20M U        K1=4.90        1972PSd (52496) 613
Medium: LiCl
*************************************************************************
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
-------------------------------------------------------------------------
Nd+++      cal NaClO4 25°C 0.50M C   H                    1963GRd (52789) 614
DH(K1)=-16.79 kJ mol-1, DS(K1)=111 J K-1 mol-1; DH(B2)=-33.93,
DS(B2)=181; DH(B3)=-49.72, DS(B3)=224.
```

```
--------------------------------------------------------------------------------
Nd+++      EMF oth/un 20°C 0.50M U        K1=8.78   B2=15.50  1961GRa (52790) 615
                                          K3=5.06
********************************************************************************
C7H5NO4                HL                      CAS 121-92-6  (490)
3-Nitrobenzoic acid; O2N.C6H4.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M C   H    K1=1.75        1986CLc (52870) 616
DH=5.9 kJ mol-1, DS=53 J K-1 mol-1
********************************************************************************
C7H5NO4                HL                      CAS 62-23-7  (489)
4-Nitrobenzoic acid; O2N.C6H4.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M M   H    K1=1.81        1999YKa (52912) 617
By calorimetry: DH(K1)=6.10 kJ mol-1, DS(K1)=55.1 J K-1 mol-1.
********************************************************************************
C7H5O2F                HL                      CAS 445-29-4  (5711)
3-Fluorobenzoic acid; F.C6H4.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M C   H    K1=1.90        1986CLc (53239) 618
DH=6.3 kJ mol-1, DS=57 J K-1 mol-1
********************************************************************************
C7H5O2F                HL                      CAS 456-22-4  (5710)
4-Fluorobenzoic acid; F.C6H4.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M C   H    K1=2.06        1986CLc (53259) 619
DH=7.9 kJ mol-1, DS=66 J K-1 mol-1
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M C      T                1993ALa (53372) 620
                                         B(1,1,1)=12.36
                                         B(1,0,1)=6.86
                                         B(1,0,2)=11.61
                                         B(1,-1,1)=-1.16
B(p,q,r); pNd+qH+rL=(Nd)pHqLr.  B(1,-2,1)=-9.70.
********************************************************************************
C7H6OS                 HL    Thiotropolone    CAS 1073-38-7  (8477)
2-Mercapto-2,4,6-cycloheptatrien-1-one;
```

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  diox/w 30°C  50%  M  I     K1=5.38   B2=10.25  1978SSi (53546) 621
                                         K3=4.19
Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4. Data for 0.005 and 0.2 M
NaClO4.
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.10M U        K1=6.77   B2=12.21  1969CMb (53683) 622
                                         K3=4.40
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      cal NaClO4 25°C 0.10M U   H    K1=2.15   B2=3.83   1982CBc (53846) 623
DH1= 8.0 kJ mol-1, DS1= 68 J K-1 mol-1
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C  0.1M C   H                    1996HYa (54267) 624
By calorimetry: DH(K1)=1.66 kJ mol-1, DH(B2)=5.94 J K-1 mol-1
--------------------------------------------------------------------------------
Nd+++      gl  NaNO3  25°C 0.10M U  I M   K1=8.26         1996KDc (54268) 625
                                         *K(NdL)=-7.91
                                         K(Nd(egta)+L)=5.72
Data for 0.05 and 0.15 M NaNO3. At I=0, K1=8.56, *K(NdL)=-8.06,
K(Nd(egta)+L)=5.89.
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M C      T                1989HMa (54269) 626
                                         K(Nd+HL)=1.90
                                         K(NdHL+HL)=1.66
--------------------------------------------------------------------------------
Nd+++      gl  alc/w  25°C  40%  U    M T K1=7.83         1986LSb (54270) 627
                                         K(Nd(EDTA)+L)=7.63
Medium: 40% v/v EtOH/H2O, 0.2 M NaClO4
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U    M   K1=8.07         1985LSf (54271) 628
                                         K(Nd(edta)+L)=7.66
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   30°C 0.10M U    M                  1976RTb (54272) 629
```

```
                                        K(Nd(NTA)+L)=7.31
--------------------------------------------------------------------------------
Nd+++      gl  alc/w  25°C 100%  U        K1=5.25   B2=10.21  1973BPd (54273) 630
                                        K3=3.16
Medium: 99.9% MeOH, 0.1 M NaCl
--------------------------------------------------------------------------------
Nd+++      con oth/un 25°C .003M U  I                    1965ERa (54274) 631
                                        K(Nd+HL)=2.85
                                        K(NdHL+HL)=2.38
                                        K(Nd(HL)2+HL)=1.89
In MeOH, 0.001 M: K(Nd+HL)=4.4; in BuOH, 0.001 M: K=5.0. By solubility:
K1=9.7, B2=17.7, K4=-0.85, Kso=-11.0, K(Nd+2L=H2L)=17.70
--------------------------------------------------------------------------------
Nd+++      gl  oth/un 20°C 0.01M U  I                    1965ERa (54275) 632
                                        K(NdL+OH)=7.21
                                        K(NdOHL+OH)=5.11
I=3: K(NdH2L3+H)=9.32, K(NdH3L3+H)=6.5 ?
--------------------------------------------------------------------------------
Nd+++      gl  KCl    30°C 0.10M U        K1=2.70        1962CTa (54276) 633
********************************************************************************
C7H6O3                H2L                       CAS 99-06-9  (1370)
3-Hydroxybenzoic acid; HO.C6H4.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M C   H                   1988LLa (54386) 634
                                        K(Nd+HL)=2.08
DH=7.51 kJ mol-1, DS=64.9 J K-1 mol-1
********************************************************************************
C7H6O3                H2L                       CAS 99-96-7  (1371)
4-Hydroxybenzoic acid; HO.C6H4.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M M   H    K1=1.83        1999YKa (54428) 635
By calorimetry: DH(K1)=8.52 kJ mol-1, DS(K1)=63.6 J K-1 mol-1.
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M C   H                   1988LLa (54429) 636
                                        K(Nd+HL)=2.31
DH=7.78 kJ mol-1, DS=70.2 J K-1 mol-1
********************************************************************************
C7H6O4                H3L    Resorcylic acid  CAS 89-86-1  (876)
2,4-Dihydroxybenzoic acid, b-Resorcylic acid; C6H3(OH)2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U    M T K1=6.48        1986LSb (54533) 637
                                        K(Nd(EDTA)+L)=4.33
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U    M   K1=6.48        1985LSd (54534) 638
```

```
                                        K(Nd(edta)+L)=4.33
                                        B(Nd(edta)L)=16.86
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U    M   K1=6.55        1985LSf (54535) 639
                                        K(Nd(edta)+L)=4.40
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 30°C 0.10M M    M   K1=10.91  B2=20.66  1976SJa (54536) 640
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U        K1=11.41       1996PJa (54686) 641
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U    M   K1=8.45        1986LSb (54687) 642
                                        K(Nd(EDTA)+L)=4.88
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U    M   K1=8.45        1985LSd (54688) 643
                                        K(Nd(edta)+L)=4.80
                                        B(Nd(edta)L)=17.41
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U    M   K1=8.53        1985LSf (54689) 644
                                        K(Nd(edta)+L)=4.96
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 30°C 0.20M U    M   K1=12.17       1978MSk (54758) 645
                                        K(Nd(nta)+L)=6.14
********************************************************************************
C7H6O5S               H2L                    CAS 632-25-7  (4436)
2-Carboxybenzenesulfonic acid; HOOC.C6H4.SO3H
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 0.20M U        K1=2.4         1973DPa (54780) 646
********************************************************************************
C7H6O6S               H3L                    CAS 585-42-2  (6136)
2-Hydroxy-4-sulphobenzoic acid, 4-sulfosalicylic acid; HO.C6H3(COOH)(HSO3)
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      sp  oth/un 25°C 1.25M U                       1977KTa (54804) 647
                                        K(Nd+HL)=1.04
                                        K(NdHL+HL)=0.73
********************************************************************************
C7H6O6S               H3L                    CAS 5965-83-3  (399)
```

5-Sulfosalicylic acid, 2-Hydroxy-5-sulfobenzoic; HO3S.C6H3(OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	KNO3	20°C	0.10M	U	T	K1=7.71	1982DBa (55029)	648
Nd+++	gl	KNO3	30°C	0.10M	U	M	K(Nd(NTA)+L)=5.92	1976RTb (55030)	649
Nd+++	gl	NaClO4	30°C	0.10M	M	M	K1=7.39 B2=13.01 B(NdAL)=11.58 K(NdA+L)=7.14 K(NdL+A)=4.19 B(NdBL)=17.56	1976SJa (55031)	650
Nd+++	gl	NaClO4	20°C	1.0M	U		K1=6.35 B2=11.85	1972CBb (55032)	651
Nd+++	sp	NaClO4	20°C	0.10M	U		K1=7.39 B2=13.01 K(Nd+HL)=2.09	1968KTb (55033)	652

K(NdB+L)=6.59, K(NdL+B)=10.17. H2A is 3,5-dinitrosalicylic acid, H2B is 4-hydroxysalicylic acid.

****

C7H6O9S2 H3L CAS 56507-30-3 (2659)

3,5-Disulfosalicylic acid; (HO3S)2.C6H2(OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	NaClO4	25°C	0.50M	C	T	K1=7.77 B2=12.88	1976LAc (55099)	653

****

C7H7NOS HL (2034)

N-Thioformyl-N-phenylhydroxylamine; H(C:S)N(C6H5)OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	diox/w	30°C	70%	U		K1=7.83 B2=13.76 K3=4.35	1981MBb (55154)	654

****

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
Nd+++	gl	NaNO3	25°C	0.10M	M	I M	K1=3.75 K(Nd(egta)+L)=3.47	1995KDc (55245)	655

Data for 0.05 and 0.15 M NaNO3. At I=0, K1=4.03, K(Nd(egta)+L)=3.73.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	NaClO4	25°C	0.10M	C		K1=2.44 B2=4.26	1989HMa (55246)	656
Nd+++	gl	alc/w	25°C	0.20M	U	M	K1=3.05 K(Nd(EDTA)+L)=2.95	1986LSb (55247)	657

```
--------------------------------------------------------------------------------
Nd+++      gl  non-aq 25°C 100%  U        K1=6.58   B2=12.13  1970BBh (55248) 658
                                         K3=3.26
                                         K4=2.50
Medium: MeOH, 0.1 M NaCl
--------------------------------------------------------------------------------
Nd+++      gl  KCl    30°C 0.10M U        K1=3.23        1962CTa (55249) 659
********************************************************************************
C7H7NO2                HL                     CAS 150-13-0  (1376)
4-Aminobenzoic acid; H2N.C6H4.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M M   H    K1=2.17        1999YKa (55388) 660
By calorimetry: DH(K1)=7.18 kJ mol-1, DS(K1)=65.6 J K-1 mol-1.
--------------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 0.20M U        K1=2.43        1977EBa (55389) 661
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  diox/w 35°C  50%  A        K1=9.80   B2=18.11  1977AKa (55510) 662
                                         K3=7.30
********************************************************************************
C7H7NO3              H2L                    CAS 89-73-6  (204)
2-Hydroxybenzohydroxamic acid (salicylhydroxamic acid); HO.C6H4.CO.NHOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C  0.1M M        K1=10.95  B2=21.05  1989LWa (55605) 663
                                         K3=9.32
--------------------------------------------------------------------------------
Nd+++      gl  mixed  25°C  75%  U                    1970SEa (55606) 664
                                         K(Nd+HL)=7.03
                                         K(NdHL+HL)=6.64
                                         K(Nd(HL)2+HL)=5.10
Medium: 75% acetone, 0.1 M NaClO4
********************************************************************************
C7H7NO5S             H2L                    CAS 3577-63-7  (3181)
5-Sulfoanthranilic acid; (5-sulfo-2-aminobenzoic acid)
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaNO3  25°C 0.10M M  I M   K1=3.68        1995KDc (55678) 665
                                         K(Nd(egta)+L)=3.13
Data for 0.05 and 0.15 M NaNO3. At I=0, K1=3.92, K(Nd(egta)+L)=3.34.
********************************************************************************
C7H7NO6S             H3L                    CAS 6201-86-1  (7899)
```

3-Amino-5-sulfosalicylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	KCl	25°C	0.20M	M	T H	K1=8.07		1991BPb (55692)	666
							K(Nd+OH+L)=15.16			

DH(K1)=-103 kJ mol-1, DS(K1)=-190 J K-1 mol-1. DH(Nd(OH)L)=-208, DS(Nd(OH)L)=-408. Also data for 35, 45 and 55 C.

****

C7H8O2 H2L Methylcatechol CAS 452-86-8 (525)
1,2-Dihydroxy-4-methylbenzene; CH3.C6H3(OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	NaNO3	25°C	0.0	U	M	K1=9.81		1996KDb (56073)	667
							K(Nd(egta)+L)=5.76			

Extrapolated from data for I=0.05-0.15 M NaNO3.

Nd+++	gl	mixed	25°C	50%	U	I	K1=4.00	B2=7.70	1969BCb (56074)	668

Medium: 50% DMSO, 0.12 M NaClO4. In 50% dioxan, 0.12 M NaClO4: K1= K2=4.08; 50% EtOH, 0.12 M NaClO4: K1=4.66, K2=3.45

****

C7H8O3 HL Ethylmaltol CAS 4940-11-8 (7628)
2-Ethyl-3-hydroxy-4H-pyran-4-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	sp	KCl	25°C	0.10M	C	I	K1=5.93	B2=10.78	1987PEa (56101)	669
							B3=14.68			
							K(Nd+HL=NdL+H)=-2.60			
							K(NdL+HL=NdL2+H)=-3.68			
							K(NdL2+HL=NdL3+H)=-4.63			

Data for 0.074-1.00 M KCl. At I=0, K1=6.64, B2=11.99, B3=16.22.

****

C7H8O4 HL Methyl kojic CAS 1506-07-8 (2686)
3-Hydroxy-6-(hydroxymethyl)-2-methyl-4H-pyran-4-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	sp	KCl	25°C	0.10M	M	I	K1=6.01	1986PLb (56131)	670

****

C7H8O5 HL CAS 2029-29-4 (2687)
3-Hydroxy-2,6-bis(hydroxymethyl)-4H-pyran-4-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	sp	KCl	25°C	0.10M	M	I	K1=5.75	1986PLb (56150)	671

****

C7H11NO4 H2L CAS 499-82-1 (3163)
Piperidine-2,6-dicarboxylic acid; C5H9N(COOH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl KNO3 25°C 0.10M U K1=5.92 B2=10.80 1963THb (56810) 672
****
C7H11NO6 H3L (2926)
2-Aminobutanoic-N-propane-1,3-dioic acid; HOOC.CH(C2H5)NH.CH(COOH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl KNO3 25°C 0.1M U K1=8.51 1982KKc (56849) 673
****
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
---
Nd+++ gl KNO3 20°C 0.10M U K1=11.93 B2=20.34 1974RMg (56913) 674
****
C7H12N2O3 HL Gly-Pro CAS 704-15-4 (257)
Glycyl-proline; H2N.CH2.CO.NC4H7.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl KNO3 25°C 0.15M M T H K1=3.65 1979SKd (57127) 675
Data for 35 and 45 C. At 35 C, K1=3.76, DH(K1)=22.8 kJ mol-1,
DS(K1)=161 J K-1 mol-1.
****
C7H12N2O3 HL Pro-Gly CAS 2578-97-6 (262)
Prolyl-glycine; C4H8N.CO.NH.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl KCl 25°C 0.10M U K1=2.75 1973FMa (57152) 676
****
C7H12O3 HL CAS 609-69-8 (3731)
2-Hydroxycyclohexanecarboxylic acid; HO.C6H10.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaClO4 25°C 1.0M U K1=2.16 B2=3.71 1967STd (57265) 677
****
C7H12O3 HL (4422)
3-Methyl ethylacetoacetate; CH3.CO.CH(CH3).CO.OCH2.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl mixed 30°C 75% U K1=7.84 1971DRb (57276) 678
Medium: 75% acetone, 0.1 M
****

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
Nd+++	gl	KNO3	25°C	0.20M	U	M	K(Nd(nta)+L)=6.24 K(Nd(hedta)+L)=6.14 K(Nd(cdta)+L)=5.78 K(Nd(dtpa)+L)=5.88	1990KMf (57309)	679

hedta is N-(hydroxyethyl)diaminoethane-N,N',N'-triethanoic acid.

****

C7H12O4 H2L CAS 510-20-3 (482)
Diethylpropanedioic acid (Diethylmalonic acid); HOOC.C(C2H5)2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	NaClO4	30°C	0.10M	U	M	B(NdLA)=8.61 K(NdL+A)=4.51 K(NdA+L)=3.49	1984SHc (57368)	680

H3A is carboxymethylthiosuccinic acid.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	KNO3	25°C	0.10M	U		K1=4.01 B2=6.63	1968PFa (57369)	681

****

C7H12O6 HL Quinic acid CAS 77-95-2 (2578)
1,3,4,5-Tetrahydroxycyclohexane-1-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	NaCl	20°C	0.10M	U		K1=2.75	1977SSc (57407)	682

****

C7H13NO5 H2L (8081)
4-Hydroxy-2-aminopentane-1,5-dioic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	KCl	20°C	0.1M	U		K1=5.98	1978KPe (57556)	683

Data for threo isomer. For erythro isomer: K1=5.71

****

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
Nd+++	gl	KNO3	20°C	0.10M	U		K1=8.45 B2=15.55	1980RPa (57616)	684

****

C7H14N2O3 HL Gly-Val CAS 7963-21-9 (973)
Glycyl-valine; H2N.CH2.CO.NH.CH(CH(CH3)2).COOH

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  KNO3   30°C 0.15M U T H    K1=3.76        1980SKe (57755) 685
Data for 20 and 40 C. DH(K1)=24.1 kJ mol-1, DS(K1)=152 J K-1 mol-1.
Ligand is glycyl-DL-valine.
*************************************************************************
C7H14N2O3S             HL    Gly-Met          CAS 554-94-9  (726)
Glycyl-methionine; H2N.CH2.CO.NH.CH(CH2.CH2.S.CH3).COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 0.10M U        K1=2.40        1973FMa (57799) 686
*************************************************************************
C7H14O3                HL                    CAS 63204-98-9  (3738)
2-Hydroxy-2,4-dimethylpentanoic acid; (CH3)2.CH.CH2.C(CH3)(OH).COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      EMF NaClO4 25°C  1.0M U        K1=2.53   B2=4.42   1965TVa (57864) 687
                                         K3=1.32
Method: quinhydrone electrode
*************************************************************************
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
-------------------------------------------------------------------------
Nd+++      gl  KNO3   20°C 0.10M U        K1=5.28   B2=9.24   1982RFa (57939) 688
*************************************************************************
C8H2O4Cl4              H2L                   CAS 632-58-6  (3214)
Tetrachlorophthalic acid; Cl4.C6(COOH)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  oth/un 20°C 0.10M U                        1960WKa (58391) 689
                                         Kso=5.00
*************************************************************************
C8H5N5O6               H3L    Murexide          (453)
Purpuric acid (Murexide is ammonium salt);
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      sp  non-aq 25°C 100%  U        K1=5.50        1983PSc (58525) 690
Medium: DMSO
-------------------------------------------------------------------------
Nd+++      sp  KNO3   12°C 0.10M U                       1965GEa (58526) 691
                                         K(Nd+H2L)=4.04
*************************************************************************
C8H5O2F3S              HL    TTA              CAS 326-91-0  (165)
4,4,4-Trifluoro-1-(2-thienyl)butane-1,3-dione; F3C.CO.CH2.CO.C4H3S
```

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      cal non-aq 25°C 100%  C   H                  2004MIa (58651) 692
Method: calorimetric titration. Medium: chloroform. DH(NdL3+A)=6.8 kJ
mol-1, DS=79.9 J K-1 mol-1; DH(NdL3+2A)=4.4, DS=128. HA is benzoic acid.
--------------------------------------------------------------------------------
Nd+++      sp  NaCl   25°C  5.0M C        K1=3.79        1996XCa (58652) 693
--------------------------------------------------------------------------------
Nd+++      gl  alc/w  22°C  80%  U        K1=6.24   B2=11.67  1995MTa (58653) 694
                                         K3=3.94
Medium: 0.1 M NaClO4 in 80% (v/v) EtOH/H2O.
--------------------------------------------------------------------------------
Nd+++      gl  mixed  25°C  50%  U        K1=5.60        1980SBc (58654) 695
Medium: 50% MeCN
--------------------------------------------------------------------------------
Nd+++      dis non-aq 25°C 100%  U T  M                  1972KKd (58655) 696
                                         K(NdL3+bpy)=5.52
                                         K(NdL3+2bpy)=7.02
                                         K(NdL3+A)=4.21
                                         K(NdL3+2A)=5.98
Medium: benzene. K(NdL3+phen)=6.36, K(NdL3+2phen)=10.85.  A=4,4'-dipyridyl
Temperature range 15-35 C
--------------------------------------------------------------------------------
Nd+++      dis non-aq 25°C 100%  U    M                  1972KKd (58656) 697
                                         K(NdL3+bpy)=5.64
                                         K(NdL3+2bpy)=7.63
Medium: CCl4
--------------------------------------------------------------------------------
Nd+++      dis non-aq 25°C 100%  U    M                  1972KKd (58657) 698
                                         K(NdL3+bpy)=4.86
                                         K(NdL3+2bpy)=5.62
Medium: CHCl3
--------------------------------------------------------------------------------
Nd+++      dis non-aq 25°C 100%  U    M                  1972KKd (58658) 699
                                         K(NdL3+bpy)=5.22
                                         K(NdL3+2bpy)=7.76
Medium: cyclohexane
********************************************************************************
C8H5O2F3Se             HL                     CAS 713-15-5  (3842)
4,4,4-Trifluoro-1-(2'-selenoyl)-butane-1,3-dione; F3C.CO.CH2.CO.C4H3Se
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      dis oth/un 25°C 0.10M U        K1=5.04   B2=9.82   1966PEa (58704) 700
                                         K3=3.87
********************************************************************************
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
-------------------------------------------------------------------------
Nd+++      gl  NaNO3  25°C 0.10M M  I M   K1=4.55        1995KDb (58993) 701
                                          K(Nd(egta)+L)=4.15
Data for 0.05 and 0.15 M NaNO3. At I=0, K1=4.86, K(Nd(egta)+L)=4.46.
-------------------------------------------------------------------------
Nd+++      gl  alc/w  25°C  40%  U    M   K1=4.72        1986LSb (58994) 702
                                          K(Nd(EDTA)+L)=3.96
Medium: 40% v/v EtOH/H2O, 0.2 M NaClO4
-------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U    M   K1=4.77        1985LSf (58995) 703
                                          K(Nd(edta)+L)=3.98
-------------------------------------------------------------------------
Nd+++      gl  NaClO4 30°C 0.10M M    M   K1=4.22   B2= 7.47  1976SJa (58996) 704
                                          B(NdAL)=7.39
                                          K(NdA+L)=3.14
                                          K(NdL+A)=3.18
                                          B(NdBL)=8.18
K(NdB+L)=3.96, K(NdL+B)=4.41; B(NdCL)=6.62, K(NdC+L)=2.40, K(NdL+C)=3.72.
H2A is malonic acid, H2B is itaconic acid, H2C is adipic acid.
-------------------------------------------------------------------------
Nd+++      gl  NaClO4 30°C 0.10M M    M                  1976SJa (58997) 705
                                          B(NdAL)=8.74
                                          K(NdA+L)=1.35
                                          K(NdL+A)=4.52
                                          B(NdBL)=8.22
K(NdB+L)=3.78, K(NdL+B)=4.00. H2A is 5-sulfosalicylic acid, H2B is
3,5-dinitrosalicylic acid.
-------------------------------------------------------------------------
Nd+++      gl  NaClO4 30°C 0.10M U        K1=4.22   B2=7.47   1966KPb (58998) 706
*************************************************************************
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
-------------------------------------------------------------------------
Nd+++      cal NaClO4 25°C 0.10M U   H    K1=2.65        1982CBc (59057) 707
DH= 11.94 kJ mol-1, DS= 91 J K-1 mol-1
*************************************************************************
C8H7NO2               HL                     CAS 532-54-7  (4363)
Isonitrosoacetophenone,  Phenylglyoxal 2-oxime;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  diox/w 20°C  50%  U        K1=5.94   B2=11.18  1971MAf (59105) 708
Medium: 50% v/v dioxan, 0.1 M NaClO4
*************************************************************************
C8H7NO3               HL                       (7376)
benzoylhydroxamic acid; C6H5COCONHOH
-------------------------------------------------------------------------
```

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C  0.1M M        K1=9.73   B2=18.68  1989LWa (59127) 709
                                         K3=8.32
*************************************************************************
C8H7O2Cl               HL                    CAS 1450-74-4  (6325)
2-Hydroxy-5-chloro-acetophenone; Cl(HO)C6H3.CO.CH3
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  alc/w  25°C  20%  M  I     K1=5.76        1994KDa (59220) 710
Medium: 20% v/v EtOH/H2O, 0.10 M NaNO3. Also data for 0.05 and 0.15 M
NaNO3. At I=0 (20% v/v), K1=6.05, *K(NdL)=-8.84, *K(Nd(OH)L)=-9.04.
*************************************************************************
C8H8N2O                 L                    CAS 4856-97-7  (3820)
2-(Hydroxymethyl)benzimidazole;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  diox/w 30°C  50%  U T H    B2=16.11       1988NOa (59312) 711
40 C: B2=16.01; 50 C: B2=15.92. DH=-17.5 kJ mol-1, DS=250 J K-1 mol-1
*************************************************************************
C8H8N2O2               HL    Phenylglyoxime     (3222)
Phenylglyoxime; C6H5.C(:N.OH).CH:N.OH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  diox/w 20°C  50%  U        K1=6.60   B2=12.48  1971MAf (59340) 712
Medium: 50% dioxan, 0.1 M NaClO4
*************************************************************************
C8H8N4OS                L                     (6097)
2-Acetylpyridinethiosemicarbazone; C5H4N.CO.CH:N.NH.CS.NH2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  alc/w  25°C  75%  C  I     K1=7.54   B2=14.23  1988GSa (59410) 713
In 75%(v/v) ethanol/water, 0.1 M NaClO4. I=0.2 M: K1=7.38, K2=6.80;
I=0.05 M: K1=7.59, K2=6.90; I=0.02 M: K1=7.74, K2=7.25
*************************************************************************
C8H8O2                 HL    2-Acetylphenol   CAS 118-93-4  (1888)
2-Hydroxyacetophenone; HO.C6H4.CO.CH3
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  alc/w  25°C  20%  M  I     K1=6.36        1994KDa (59468) 714
Medium: 20% v/v EtOH/H2O, 0.10 M NaNO3. Also data for 0.05 and 0.15 M
NaNO3. At I=0 (20% v/v), K1=6.66, *K(NdL)=-8.76, *K(Nd(OH)L)=-9.31.
*************************************************************************
C8H8O2                 HL    Phenylacetic     CAS 103-82-2  (1361)
Phenylethanoic acid; C6H5.CH2.COOH
```

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaClO4 25°C 0.1M C H K1=2.09 1996HYa (59557) 715
By calorimetry: DH(K1)=10.21 kJ mol-1

Nd+++ gl NaClO4 25°C 0.10M C H K1=2.09 1990HYa (59558) 716
By calorimetry: DH(K1)=10.2 J K-1 mol-1

Nd+++ vlt KCl 25°C 1.0M C T H K1=4.3 1982KMf (59559) 717
Method: polarography. At 35 C, K1=3.8. Also DH and DS values.
****
C8H8O2 HL CAS 583-80-2 (3191)
beta-Methyltropolone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ sp alc/w ? 3% U K1=6.78 1967GDb (59601) 718
Medium: 3% EtOH, 0.2 M NaClO4
****
C8H8O2Se HL Selenoylacetone CAS 1680-37-1 (4508)
1-(2'-Selenoyl)butane-1,3-dione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ dis oth/un 25°C 0.10M U K1=5.62 B2=11.04 1966PEa (59665) 719
K3=4.48
****
C8H8O3 H2L CAS 490-78-8 (6324)
2,5-Dihydroxyacetophenone; (HO)2C6H3.CO.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl alc/w 25°C 20% M I 1994KDa (59681) 720
K(Nd+HL)=6.14
Medium: 20% v/v EtOH/H2O, 0.10 M NaNO3. Also data for 0.05 and 0.15 M
NaNO3. At I=0 (20% v/v), K1=6.45, *K(NdHL)=-8.69, *K(Nd(OH)HL)=-9.09.
****
C8H8O3 HL o-Anisic acid CAS 579-75-9 (2337)
2-Methoxybenzoic acid; CH3O.C6H4.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaClO4 25°C 0.10M M H K1=2.08 1988CLb (59741) 721
DH=6.62 kJ mol-1, DS=63 J K-1 mol-1

Nd+++ gl alc/w 25°C 42% U K1=2.7 1983PMa (59742) 722

Nd+++ sp KCl 25°C 0.10M U K1=1.24 B2=1.79 1981MTc (59743) 723

Nd+++ gl diox/w 30°C 76% M K1=6.87 1978PMa (59744) 724
Medium: 76% v/v dioxane/H2O, 0.10 M NaClO4.
****
C8H8O3 HL Mandelic Acid CAS 611-72-3 (80)
2-Phenyl-2-hydroxyethanoic acid; C6H5.CH(OH).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ cal alc/w 25°C 60% U H 1996YLa (59854) 725
K(NdL+Phen)=3.65
Medium: 60% v/v MeoH/H2O. Phen: 1,10-phenanthroline.
DH=-6.06 kJ mol-1, DS=50.9 J K-1 mol-1.

Nd+++ gl NaClO4 25°C 0.10M C K1=2.83 B2=4.77 1989HMa (59855) 726

Nd+++ vlt KCl 25°C 1.0M C T H K1=6.5 1982KMf (59856) 727
Method: polarography. At 35 C, K1=6.0. Also DH and DS values.

Nd+++ gl NaClO4 25°C 2.0M U T K1=2.43 1972DCb (59857) 728

Nd+++ gl KNO3 25°C 1.0M U I K1=2.12 B2=3.72 1967PNb (59858) 729
At I=0.1: K1=2.49, K2=1.90

Nd+++ gl NaClO4 25°C 1.0M U K1=2.59 B2=4.29 1966TVa (59859) 730
K3=1.32
K4=1.20
****
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
---
Nd+++ gl NaClO4 25°C 0.10M M H K1=2.12 1988CLb (59915) 731
DH=8.61 kJ mol-1, DS=69 J K-1 mol-1
****
C8H8O3 HL CAS 148-52-8 (3193)
3-Methoxysalicylaldehyde; CH3O.C6H3(OH).CHO

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaNO3 25°C 0.10M M I M K1=4.551 1995KDd (59930) 732
K(Nd(egta)+L)=3.153
Data for 0.15 and 0.05 M NaNO3. At I=0, K1=4.796, K(Nd(egta)+L)=3.451.
****
C8H8O3 HL p-Anisic acid CAS 100-09-4 (1373)
4-Methoxybenzoic acid; CH3O.C6H4.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaClO4 25°C 0.10M M H K1=2.18 1988CLb (59958) 733

DH=8.28 kJ mol-1, DS=69 J K-1 mol-1

Nd+++ gl diox/w 30°C 76% M K1=6.86 1978PMa (59959) 734

Medium: 76% v/v dioxane/H2O, 0.10 M NaClO4.

****

C8H8O4 H3L CAS 480-66-0 (8525)

2,4,6-Trihydroxyacetophenone;

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

---

Nd+++ gl diox/w 25°C 50% M K1=3.71 1978AGc (60055) 735

Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4.

****

C8H8O4 HL CAS 520-45-6 (4478)

3-Acetyl-2-hydroxy-6-methylpyran-4-one, Dehydroethanoic acid;

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

---

Nd+++ gl diox/w 35°C 50% U K1=4.34 B2=7.86 1971MAa (60094) 736

Medium: 50% dioxan, 0.1 M NaClO4

****

C8H8O9 H4L (6951)

Tetrahydrofuran-2,3,4,5-tetracarboxylic acid;

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

---

Nd+++ cal NaClO4 25°C 0.10M C H 2000MNa (60135) 737

DH(Nd+HL)=-7.2 kJ mol-1, DS=108 J K-1 mol-1. DH(Nd+H2L)=-4.14, DS=82.

DH(Nd+2H2L)=-6.62, DS=165.

Nd+++ gl NaClO4 25°C 0.10M C K1=9.47 B2=15.61 1995JNa (60136) 738

B(NdH2L)=16.16

B(NdHL)=13.38

B(NdH-1L)=1.00

B(NdH-2L)=-9.76

B(NdH4L2)=32.04, B(NdH3L2)=28.70, B(NdH2L2)=25.36, B(NdHL2)=20.10

****

C8H9NO2 HL CAS 4389-45-1 (3226)

3-Methyl-2-aminobenzoic acid; CH3.C6H3(NH2).COOH

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

---

Nd+++ gl NaNO3 25°C 0.10M M I M K1=5.10 1995KDc (60234) 739

K(Nd(egta)+L)=4.83

Data for 0.05 and 0.15 M NaNO3. At I=0, K1=5.38, K(Nd(egta)+L)=4.99.

****

C8H9NO2 HL CAS 5330-97-2 (6248)

Phenylacetohydroxamic acid; C6H5.CH2.CO.NH.OH

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

```
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   30°C 0.10M C    M   K1=5.69   B2=11.04  1987RSc (60350) 740
                                          K3=4.50
                                          K(Nd(hedta)+L)=4.25
hedta is N-hydroxyethyldiaminoethane-N,N',N'-triethanoic acid.
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   20°C 0.10M M T      K1=5.75   B2=11.16  1986RSc (60351) 741
                                          K3=4.55
Data for 20-50 C. At 30 C, K1=5.69, K2=5.35, K3=4.50.
********************************************************************************
C8H9NO2S               HL                     CAS 104-18-7  (4575)
(4-Aminophenylthio)ethanoic acid; H2N.C6H4.S.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.05M M        K1=3.50        1975DPb (60375) 742
********************************************************************************
C8H9NO4               H2L                      (4520)
Dehydroethanoic acid oxime;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  diox/w 35°C  50%  U                      1971MAa (60500) 743
                                          K(Nd+HL)=4.18
                                          K(Nd+2HL)=7.57
Medium: 50% dioxan, 0.1 M NaClO4
********************************************************************************
C8H9N3O2                L                      CAS 7254-31-4  (1266)
Acylnicotinoyl hydrazide; C5H4N.CO.NH.NH.CO.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M U        K1=12.90  B2=24.40  1980ZMa (60570) 744
********************************************************************************
C8H10N6O2S2           H2L                      (2746)
2,5-Dihydroxybenzoquinone bis-thiosemicarbazone;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  diox/w 30°C  50%  C TIH    K1=5.81   B2=10.99  1989GDa (60817) 745
DH(K1)=-143.6 kJ mol-1
********************************************************************************
C8H10O4                L                      CAS 34241-51-5  (5701)
3-Acetyl-6-methylhydropyrane-2,4-dione;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  alc/w  22°C  20%  U        K1=4.32   B2=7.84   1988ZTa (60852) 746
                                          K3=2.89
********************************************************************************
```

C8H10O5 H2L CAS 145-73-7 (138)
7-Oxa-bicyclo[2.2.1]-heptan-2,3-dicarboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	KCl	30°C	0.10M	C		K1=5.92 B2=10.06	1996SZa (60873)	747

For the -5-en-2-exo isomer, K1=6.18, B2=10.86.

****

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
Nd+++	gl	KCl	25°C	0.1M	C		K1=4.21 B(NdHL)=11.9	1999DNa (61122)	748

****

C8H11NO8 H4L CAS 7408-20-0 (2608)
Amino-di(butanedioic acid);HN(CH(COOH)CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	KCl	25°C	0.10M	U		K1=12.38 B2=17.94 B(NdHL)=16.18	1979BEb (61212)	749
Nd+++	sp	none	*		U		K1=11.19 B2=28.53 K(NdL+H)=4.29	1979MMg (61213)	750

* room temperature

****

C8H11NO9P2 H5L CAS 147608-63-7 (8924)
[(2-Hydroxy-5-nitro-1,3-phenylene)bis(methylene)]bisphosphonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	NaClO4	25°C	0.10M	U		K1=12.56 B(NdHL)=20.19 B(NdH2L)=24.95 B(NdH3L)=27.3 B(NdH-1L)=1.98	2002BBh (61233)	751

B(NdH-2L)=-9.5. By spectrophotometry, K1=11.98, B(NdHL)=20.26, B(NdH2L)=
24.33, B(NdH3L)=29.39, B(NdH-1L)=3.1, B(NdH-2L)=-8.0.

****

C8H11O7ClP2 H5L CAS 147608-64-8 (8925)
[(5-Chloro-2-hydroxy-1,3-phenylene)bis(methylene)]bisphosphonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	NaClO4	25°C	0.10M	U		K1=12.41 B(NdHL)=19.98 B(NdH2L)=24.47 B(NdH-1L)=3.60	2002BBh (61317)	752

B(NdH-2L)=-6.5

****

C8H12N2O3 H2L Barbital CAS 57-44-3 (2744)
5,5-Diethylbarbituric acid, Veronal, Barbitone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	oth/un	25°C	0.10M	U		K1=3.036		1987TSb (61440)	753

****

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
Nd+++	gl	KNO3	20°C	0.10M	U		K1=12.27	B2=16.42	1975DPa (61516)	754
Nd+++	vlt	KNO3	25°C	0.10M	U		K1=10.46		1972GBd (61517)	755

****

C8H12O2 HL CAS 874-23-7 (3203)
2-Acetylcyclohexanone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	mixed	25°C	75%	U		K1=8.78	B2=16.53	1971DRa (61675)	756
							K3=7.75			

Medium: 75% acetone, 0.1 M NaClO4

****

C8H12O2 HL Dimedone CAS 126-81-8 (1137)
5,5-Dimethyl-1,3-cyclohexanedione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	oth/un	30°C	0.10M	U		K1=2.70	B2=5.10	1975DSa (61689)	757

****

C8H12O4 H2L CAS 1076-97-9 (2224)
Cyclohexane-1,4-dicarboxylic acid; C6H10.(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	NaClO4	25°C	0.10M	M	H	K1=4.37		1986CDb (61713)	758

DH=14.7 kJ mol-1, DS=133 J K-1 mol-1

****

C8H13NO6 H3L (3835)
2-Amino-2-carboxypropane-N,N-diethanoic acid; HOOCC(CH3)2N(CH2COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	KNO3	20°C	0.10M	U		K1=9.27	B2=15.84	1974RMg (61766)	759

****

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
Nd+++	gl	KNO3	20°C	0.10M	U		K1=10.82 B2=18.50	1974RMg (61791)	760

****

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
Nd+++	gl	NaClO4	25°C	0.10M	U		K1=8.25	1975POa (61827)	761
							K(Nd+HL)=2.66		

****

C8H14O3 HL CAS 607-97-6 (4489)

3-Ethylethylacetoacetate; CH3.CO.CH(C2H5).CO.OC2H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	mixed	30°C	75%	U		K1=8.43	1971DRb (62080)	762

Medium: 75% acetone, 0.1 M

****

C8H14O4 H2L Suberic acid CAS 505-48-6 (517)

Octanedioic acid; HOOC.(CH2)6.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	KNO3	25°C	0.20M	U	M		1990KMf (62098)	763
							K(Nd(nta)+L)=3.42		
							K(Nd(hedta)+L)=3.35		
							K(Nd(cdta)+L)=3.30		
							K(Nd(dtpa)+L)=3.27		
Nd+++	gl	KNO3	25°C	0.10M	U TI	M	K1=4.55	1988BKb (62099)	764
							K(Nd(hedta)+L)=3.54		

hedta is N-(hydroxyethyl)diaminoethane-N,N',N'-triethanoic acid.

Data for 0.05-0.20 M KNO3, and for ternary complexes at 5-45 C. Also data 30-60% EtOH/H2O. hedta: N-(Hydroxyethyl)diaminoethane-N,N',N'-triethanoic

****

C8H16N2O3 HL Gly-Leu CAS 869-19-2 (255)

Glycyl-leucine; H2N.CH2.CO.NH.CH(CH2.CH(CH3)2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	KCl	25°C	0.10M	U		K1=2.40	1973FMa (62391)	765

****

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

```
-------------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 0.10M U        K1=1.85        1973FMa (62436) 766
*******************************************************************************
C8H16O3                HL                      CAS 58888-84-9  (3807)
2-Hydroxy-2-propylpentanoic acid; CH3.CH2.CH2.C(OH)(CH2.CH2.CH3).COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Nd+++      EMF NaClO4 25°C  1.0M U        K1=2.61   B2=4.41   1965TVa (62635) 767
Method: quinhydrone electrode
*******************************************************************************
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
-------------------------------------------------------------------------------
Nd+++      ISE non-aq 25°C 100%  U        K1=5.19   B2=6.74   1982MDa (62713) 768
Medium: propylene carbonate
*******************************************************************************
C8H17O5P                L                       CAS 876-13-3  (4549)
Ethyldiethoxyphosphonacetate; (CH3.CH2O)2.PO.CH2.CO.OCH2.CH3
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Nd+++      sp  non-aq 20°C 100%  U    M                   1972DBb (62809) 769
                                          K(Nd(NO3)3+L)=0.21
Medium: tetrahydrofuran
*******************************************************************************
C8H18N2O10P2          H6L                      CAS 2310-83-0  (5667)
1,2-Diaminoethane-N,N-diethanoic-N',N'-dimethylphosphonic acid;
(HOOC.CH2)2NCH2CH2N(CH2.PO3H2)2
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.10M U                        1976TIa (62920) 770
                                          K(Nd+H2L)=6.34
*******************************************************************************
C8H18O4                 L    Triglyme         CAS 112-49-2  (2358)
1,2-Bis(methoxyethoxy)ethane; CH3O.C2H4O.CH2.CH2.OC2H4.OCH3
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Nd+++      gl  non-aq 25°C 100%  C        K1=4.29        1989BPa (62993) 771
Medium: anhydrous propylene carbonate, 0.1 M Et4NClO4
*******************************************************************************
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
-------------------------------------------------------------------------------
```

Nd+++ gl NaCl 30°C 0.10M C K1=4.54 B2= 8.40 2002NWa (63066) 772
Constants expressed on the molality scale.
****
C8H19O4P HL CAS 107-66-4 (2130)
Dibutylphosphoric acid; (C4H9O)2P(O)OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ kin none 25°C 0.0 M K1=2.20 1966SSb (63187) 773

Nd+++ dis KNO3 ? 1.10M U 1962SKb (63188) 774
K(Nd+3HL+3L)=15.4
Medium: HNO3
****
C8H22N2O6P2 H4L CAS 13516-59-1 (3850)
2,2'-(Ethylenedi-imino)bis(propylphosphonic acid);

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl KCl 25°C 0.10M U K1=11.60 1965DKb (63343) 775
K(Nd+HL)=5.82
****
C9H5NOCl2 HL CAS 773-76-2 (3278)
5,7-Dichloro-8-hydroxyquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ dis NaClO4 25°C 1.0M U K1=6.6 B2=12.8 1966RGa (63545) 776
B3=18.4
****
C9H5NOI2 HL CAS 83-73-8 (3280)
5,7-Di-iodo-8-hydroxyquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 35°C 75% U K1=6.75 B2=12.55 1971MAb (63568) 777
K3=5.10
Medium: 75% v/v dioxan, 0.1 M NaClO4
****
C9H5NO4 HL CAS 22308-86-7 (4607)
3-Nitroso-4-hydroxycoumarin (oximidobenzotetronic acid);

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ sp diox/w 20°C 50% U K1=2.57 B2=3.78 1977MBb (63612) 778
****
C9H6NO4BrS H2L CAS 3062-37-1 (3889)
7-Bromo-8-hydroxyquinoline-5-sulfonic acid;

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

---
Nd+++ gl NaClO4 25°C 0.10M U K1=5.09 B2=9.52 1973MAa (63701) 779
K3=4.0
****
C9H6NO4IS H2L Ferron CAS 547-91-1 (275)
7-Iodo-8-hydroxyquinoline-5-sulfonic acid; (HO)(HO3S)C9H4NI

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaClO4 25°C 0.10M U I K1=5.13 B2=9.89 1987BCd (63820) 780
B3=13.68
Data also in 42% MeOH, 51.1% EtOH and 61.2% dioxan

Nd+++ gl oth/un 20°C 0.10M U K1=5.71 1977SKd (63821) 781
****
C9H6O6 H3L Hemimellitic ac CAS 569-51-7 (1621)
1,2,3-Benzenetricarboxylic acid; C6H3.(COOH)3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaClO4 25°C 0.10M U H K1=5.01 1994CRa (63974) 782
K(Nd+HL)=2.62
DH(K1)=15.5 kJ mol-1; DS=148 J K-1 mol-1
****
C9H7N L CAS 91-22-5 (1538)
Quinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaClO4 25°C 0.5M M H K1=3.49 1991KBb (64066) 783
By calorimetry: DH(K1)=1.96 kJ mol-1, DS(K1)=73.4 J K-1 mol-1.
****
C9H7NO HL Oxine CAS 148-24-3 (504)
8-Hydroxyquinoline (8-quinolinol);

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ sp NaCl 25°C 5.0M C K1=7.52 1996XCa (64325) 784

Nd+++ sol none RT 0.0 U 1981FCa (64326) 785
Kso(NdL3)=-30.50
Method: spectrophotometry.

Nd+++ gl oth/un 20°C 0.10M U K1=6.66 1977SKd (64327) 786

Nd+++ gl diox/w 30°C 50% U K1=8.88 B2=17.13 1970GMb (64328) 787
Medium: 50% dioxan, 0.3 M NaClO4
****
C9H7NO2 HL CAS 1127-45-3 (4614)
8-Hydroxyquinoline-N-oxide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	diox/w	30°C	50%	U		K1=6.96		1970GMb (64409)	788

Medium: 50% dioxan, 0.3 M NaClO4

****

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
Nd+++	gl	KNO3	30°C	0.10M	U	M			1976RTb (64566)	789
							K(Nd(NTA)+L)=4.89			
Nd+++	cal	KNO3	20°C	0.10M	U	HM			1971GKb (64567)	790
							K(NdA+L)=4.07			

DH(NdA+L)=-22.36 kJ mol-1, DS=1.67 J K-1 mol-1
DH(NdAL): DH=-37.49, DS=267.5. H4A=EDTA

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	oth/un	25°C	0.0	U	H	K1=6.3	B2=11.60	1958FOb (64568)	791
							K3=4.4			

DH(K1)=-12.6 kJ mol-1, DS=79 J K-1 mol-1; DH(K2)=-11.7, DS=63; DH(K3)=-11.7, DS=46

****

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
Nd+++	sp	NaNO3	25°C	0.10M	C		K1=7.79		1985OHb (64717)	792
							K(Nd+HL)=4.40			
							K(NdL+H)=6.05			

****

C9H8O2 HL CAS 140-10-3 (3245)
trans-Cinnamic acid; C6H5.CH:CH.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	vlt	KCl	25°C	1.0M	C	T H	K1=3.2		1982KMf (64870)	793

Method: polarography. At 35 C, K1=2.7. Also DH and DS values.

****

C9H8O4 H2L CAS 97652-17-0 (3855)
3-Carboxy-4-methyltropolone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	sp	NaClO4	?	0.20M	U		K1=7.69		1967GDc (64949)	794
							K(NdHL)=10.14			
Nd+++	gl	NaClO4	25°C	0.20M	U		K1=7.76	B2=13.80	1966GDa (64950)	795

K3=3.70

****

C9H8O4 H2L CAS 15872-28-3 (8407)
Bicyclo[2.2.1]hepta-2,5-diene-2,3-dicarboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	KCl	30°C	0.10M	U		K1=4.26	1996SZa (64979)	796

****

C9H9O2Br HL CAS 56609-15-5 (1417)
3-Bromo-2-hydroxy-5-methyl-acetophenone; CH3.CO.C6H2(OH)(Br)CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	diox/w	27°C	0.10M	U		K1=4.38	1982LMa (65163)	797

****

C9H10O2 HL Benzylacetic CAS 501-52-0 (1362)
3-Phenylpropanoic acid; C6H5.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	NaClO4	25°C	0.1M	C	H	K1=2.16 B2= 3.67	1996HYa (65369)	798
By calorimetry: DH(K1)=9.82 kJ mol-1, DH(B2)=17.56 J K-1 mol-1									
Nd+++	gl	NaClO4	25°C	0.10M	C	H	K1=2.16 B2=3.67	1990HYa (65370)	799
By calorimetry: DH(K1)=9.8 J K-1 mol-1, DH(K2)=7.7									

****

C9H10O3 HL Atrolactic acid CAS 940-31-8 (3859)
2-Hydroxy-2-phenylpropanoic acid; CH3.C(OH)(C6H5).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	NaClO4	25°C	1.0M	U		K1=2.55 B2=4.19 K3=1.42 K4=1.21	1966TVa (65440)	800

****

C9H10O3 HL CAS 1878-49-5 (1600)
2-Phenyl-2-methoxyethanoic acid; C6H5.CH(OCH3)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	NaClO4	25°C	0.10M	C		K1=2.16 B2=3.83	1989HMa (65464)	801

****

C9H10O3 HL Tropic acid CAS 529-64-6 (1601)
2-Phenyl-3-hydroxypropanoic acid; HO.CH2.CH(COOH)C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	NaClO4	25°C	0.10M	C		K1=2.23 B2=4.11	1989HMa (65478)	802

****

C9H10O4 HL CAS 1521-38-6 (8489)
2,3-Dimethoxybenzoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 25°C 76% M K1=6.94 1978PMa (65532) 803
Medium: 76% v/v dioxane/H2O, 0.10 M NaClO4.
****
C9H10O4 HL CAS 91-52-1 (8490)
2,4-Dimethoxybenzoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 25°C 76% M K1=7.32 1978PMa (65539) 804
Medium: 76% v/v dioxane/H2O, 0.10 M NaClO4.
****
C9H10O4 HL CAS 1466-76-8 (8491)
2,6-Dimethoxybenzoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 25°C 76% M K1=6.53 1978PMa (65546) 805
Medium: 76% v/v dioxane/H2O, 0.10 M NaClO4.
****
C9H10O4 H2L (7232)
Bicyclo[2.2.1]hept-5-en-2-endo,3-cis-dicarboxylic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl KCl 30°C 0.10M C K1=4.04 B2=6.91 1996SZa (65575) 806
For the -2,5-dien-2-exo isomer, K1=4.26.
****
C9H10O4 H2L CAS 3853-88-1 (5687)
endo-cis-Bicyclo-[2,2,1]-5-hepten-2,3-dicarboxylic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaClO4 24°C 0.10M U K1=4.41 1986ZBa (65590) 807
K(Nd+HL)=1.80
****
C9H10O5 H2L CAS 54384-22-4 (8406)
1-Methyl-(exo,exo)-7-oxabicyclo[2.2.1]hept-5-ene-2,3-dicarboxylic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl KCl 30°C 0.10M U K1=5.08 B2= 8.02 1996SZa (65607) 808
****
C9H10O5 H2L (7233)
1-Methyl-7-oxa-bicyclo[2.2.1]hept-5-en-2-exo,3-cis-dicarboxylic acid;

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  KCl    30°C 0.10M C        K1=5.08   B2=8.02   1996SZa (65622) 809
*************************************************************************
C9H10O8              H4L                      CAS 3724-52-5  (1264)
cis-1,2,3,4-Cyclopentanetetracarboxylic acid; C5H6.(COOH)4
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  NaClO4 30°C 0.20M U T      K1=10.10       1979NSb (65647) 810
                                         K1=10.20 when T=40.
                                         K1=10.35 when T=50.
*************************************************************************
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
-------------------------------------------------------------------------
Nd+++      gl  NaCl   25°C 0.15M U   H    K1=3.22        1992ZNa (65959) 811
By calorimetry: DH(K1)=-0.63 kJ mol-1, DS(K1)=59.53 J K-1 mol-1.
-------------------------------------------------------------------------
Nd+++      gl  NaNO3  25°C  0.0  U        K1=4.59        1991ADb (65960) 812
Extrapolated from data for 0.01-0.1 M NaNO3. Data for 35 and 45 C.
-------------------------------------------------------------------------
Nd+++      gl  KNO3   35°C 0.10M U        K1=4.89        1990RSe (65961) 813
-------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 0.10M U        K1=4.2         1972BFe (65962) 814
*************************************************************************
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
-------------------------------------------------------------------------
Nd+++      vlt KCl    25°C  1.0M C T                      1986KHc (66235) 815
                                         K(Nd+HL)=4.60
Method: polarography. Medium pH 2.70. Also data for 35 C.
-------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.10M U T H                   1976SAd (66236) 816
                                         K(Nd+HL)=4.54
                                         K(NdHL+HL)=4.01
-------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 0.10M U                       1972BFe (66237) 817
                                         K(Nd+HL)=4.1
                                         K(NdHL+HL)=3.5
*************************************************************************
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
-------------------------------------------------------------------------
```

Nd+++ gl diox/w 30°C 75% U K1=7.20 1988MKd (66508) 818
****
C9H11N3O3 HL CAS 58336-41-7 (6169)
N-(2-Hydroxy-3-methoxybenzylidene)semicarbazide; CH3O(OH)C6H3.CH:N.CO.NH.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 30°C 75% U K1=10.91 1988MKd (66516) 819
****
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
---
Nd+++ gl KNO3 35°C 0.10M U M K1=4.57 1990RSc (66700) 820
K(NdA+L)=4.35
K(NdB+L)=4.22
K(NdC+L)=3.71
H2A=Iminodiethanoic acid, H3B=NTA, H4C=EDTA

Nd+++ gl KNO3 35°C 0.10M U M K1=4.21 1990RSe (66701) 821
K(NdL+Ala)=9.01
K(NdL+Phe)=8.77
K(NdL+Trp)=9.03
****
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
---
Nd+++ sp KNO3 20°C 0.10M U K1=11.85 1985KTa (66741) 822

Nd+++ ISE KNO3 25°C 0.10M U K1=11.85 1983KBd (66742) 823
Hg-electrode.
****
C9H13NO6 H3L (3881)
2,6-Dicarboxypiperidyl-N-ethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl KNO3 25°C 0.10M U K1=10.18 B2=17.50 1968TKe (66890) 824
****
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
---
Nd+++ gl KNO3 35°C 0.10M U M 1992RAd (66978) 825
K(Nd+HL)=3.78

K(NdHL+Gly)=3.98
K(Nd+HL+His)=8.73
K(Nd+HL+histamine)=8.05

****

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
Nd+++	gl	KNO3	35°C	0.10M	U	M	K1=3.03	1990RSc (67068)	826
							K(Nd+HA+L)=7.61		
							B(NdLB)=14.62		
							B(NdLC)=19.72		

H2A=Iminodiethanoic acid, H3B=NTA, H4C=EDTA

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	KNO3	35°C	0.10M	U	M	K1=2.43	1990RSe (67069)	827
							K(NdL+Ala)=4.91		
							K(NdL+Phe)=4.96		
							K(NdL+Trp)=5.28		

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	KNO3	35°C	0.10M	U	M	K1=3.03	1986RMb (67070)	828

K(Nd+L+HGly)=8.41, K(Nd+L+HHis)=8.54, K(Nd+L+oxalate)=9.89

****

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
Nd+++	nmr	KCl	25°C	2.00M	U			1983MAa (67321)	829
							K(Nd+H2L)=1.03		

****

C9H14O7P2 H5L CAS 147608-61-5 (7128)
Hydroxy-4-methylbenzene-2,6-di(methylphosphonic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	NaClO4	25°C	0.10M	U		K1=12.0	2002BBh (67369)	830
							B(NdHL)=20.9		
							B(NdH2L)=27.3		
							B(NdH3L)=30.1		
							B(NdH-1L)=1.2		

B(NdH-2L)=-11.3.

****

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
Nd+++	gl	KNO3	20°C	0.10M	U		K1=10.58 B2=18.01	1974RMg (67410)	831

****

C9H16N2O6 H3L MEDTA CAS 40423-02-7 (5717)
N-Methyldiaminoethane-N,N',N'-triethanoic acid; HOOC.CH2.N(CH3)CH2.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	cal	NaClO4	25°C	0.50M	M	IH	K1=12.14		1986RCa (67642)	832

DH=-16.4 kJ mol-1, DS=178 J K-1 mol-1

****

C9H16O4 H2L CAS 1636-27-7 (485)
Dipropylpropanedioic acid (Di-n-propylmalonic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	KNO3	25°C	0.10M	U		K1=4.06	B2=7.05	1968PFa (67776)	833

****

C9H16O4 H2L Azelaic acid CAS 123-99-9 (3255)
Nonanedioic acid; HOOC.(CH2)7.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	KNO3	25°C	0.20M	U	M			1990KMf (67795)	834
							K(Nd(nta)+L)=3.92			
							K(Nd(hedta)+L)=3.40			
							K(Nd(cdta)+L)=3.27			
							K(Nd(dtpa)+L)=3.22			
Nd+++	gl	KNO3	25°C	0.10M	U TI	M	K1=4.70		1988BKb (67796)	835
							K(Nd(hedta)+L)=3.84			

hedta is N-(hydroxyethyl)diaminoethane-N,N',N'-triethanoic acid.

Data for 0.05-0.20 M KNO3, and for ternary complexes at 5-45 C. Also data 30-60% EtOH/H2O. hedta: N-(Hydroxyethyl)diaminoethane-N,N',N'-triethanoic

****

C9H17NO5 HL Pantothenic acd CAS 63409-48-3 (2629)
N-(2,4-Dihydroxy-3,3-dimethylbutyryl)-3-aminopropanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	sp	KCl	20°C	0.5M	C		K1=2.01	B2=3.87	1993YWa (67816)	836
							B3=5.60			

****

C10H5O2F7S L (6996)
1-(2-Thienyl)-3-heptafluoropropylpropane-1,3-dione; C3F7.C(O)CH2C(O)C4H3S

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	alc/w	22°C	80%	U		K1=6.10	B2=11.61	1995MTa (68430)	837
							K3=4.83			

Medium: 0.1 M NaClO4 in 80% (v/v) EtOH/H2O.

****

C10H6O3 HL CAS 481-39-0 (3295)

5-Hydroxy-1,4-naphthoquinone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	diox/w	25°C	50%	C	T H	K1=7.67	B2=15.14	1992SAa (68478)	838
							K3=6.87			

At 35 C: K1=7.45, K2=6.73, K3=6.13; DH(K1)=-38.7 kJ mol-1

****

C10H6O8 H4L Pyromellitic Ac CAS 89-05-4 (519)

Benzene-1,2,4,5-tetracarboxylic acid; C6H2.(COOH)4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	NaClO4	25°C	0.10M	U	H	K1=4.73		1994CRa (68525)	839
							K(Nd+HL)=3.76			

DH(K1)=10.1 kJ mol-1, DS=124 J K-1 mol-1; DH(Nd+HL)=7.5, DS=97

****

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
Nd+++	sp	KCl	25°C	0.10M	M	I	K1=4.44		1976PEa (68582)	840
Nd+++	gl	diox/w	30°C	75%	U		K1=9.5	B2=17.7	1957CFa (68583)	841
							B3=25.56			

****

C10H7NO2 HL CAS 132-53-6 (2524)

2-Nitroso-1-naphthol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	diox/w	30°C	75%	U		K1=8.51	B2=16.11	1957CFa (68651)	842
							B3=23.16			

****

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
Nd+++	gl	NaClO4	30°C	0.10M	U		K1=2.57	B2=4.92	1969DNc (68715)	843

****

C10H7NO2 HL CAS 86-59-9 (873)

Quinoline-8-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	NaClO4	30°C	0.10M	U		K1=2.55		1969DNc (68767)	844

****

C10H7NO5S H2L CAS 14090-74-5 (2676)

1-Nitroso-2-hydroxynaphalene-7-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	KCl	25°C	0.10M	M		K1=4.49	B2=8.10	1979LSb (68816)	845

****

C10H7NO5S H2L (4766)
1-Nitroso-2-hydroxynaphthalene-6-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	sp	KCl	25°C	0.10M	C		K1=4.47		1973PMb (68850)	846
Nd+++	gl	KCl	25°C	0.10M	U		K1=4.52	B2=8.2	1970MSb (68851)	847

****

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
Nd+++	gl	KCl	25°C	0.10M	U	I	K1=3.47		1967MAi (68890)	848

K1=4.57(I=0)

****

C10H7NO5S H2L CAS 23525-13-6 (1813)
2-Nitroso-1-hydroxynaphthalene-5-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	KCl	25°C	0.10M	U		K1=3.83	B2=6.9	1970MSb (68911)	849

****

C10H7NO5S H2L CAS 31005-79-9 (1814)
2-Nitroso-1-hydroxynaphthalene-8-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	sp	KCl	25°C	0.10M	M		K1=5.46		1978PPb (68949)	850

****

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
Nd+++	gl	KCl	25°C	0.10M	U		K1=5.01		1968MAe (69021)	851

****

C10H7NO8S2 H3L CAS 52664-45-6 (1627)
2-Nitroso-1-hydroxynaphthalene-4,6-disulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	NaCl	25°C	0.10M	U		K1=3.759	B2=6.021	1974SAa (69052)	852

****
C10H7NO8S2 H3L CAS 50332-99-3 (1628)
2-Nitroso-1-hydroxynaphthalene-4,7-disulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	NaCl	25°C	0.10M	U		K1=3.879 B2=6.000	1974SAa (69062)	853

****
C10H7N5O5 HL CAS 102964-51-2 (6212)
5-(2'-Nitrophenylazo)barbituric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	diox/w	25°C	75%	U		K1=4.59 B2=9.01	1986MIa (69099)	854

****
C10H7O2F3 HL CAS 326-06-7 (196)
3-Benzoyl-1,1,1-trifluoroacetone; CF3.CO.CH2.CO.C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	alc/w	22°C	80%	U		K1=6.76 B2=13.26 K3=5.67	1995MTa (69158)	855

Medium: 0.1 M NaClO4 in 80% (v/v) EtOH/H2O.
****
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
Nd+++	sp	non-aq	25°C	100%	C T		K1=2.80	2005SYa (69627)	856

In ethylacetate; At 50 C K1=2.62

Nd+++	nmr	non-aq	21°C	100%	U	HM	K(NdI3+2L)=3.15	2001RNa (69628)	857

Medium: pyridine. At -40 C K(NdI3L2+L)=-0.70. DH(NdI3+2L)=-30 kJ mol-1, DS(NdI3+2L)=-44 J K-1 mol-1.

Nd+++	gl	NaNO3	25°C	0.50M	U		K1=0.9	1979HJa (69629)	858

Nd+++	cal	non-aq	25°C	100%	U	M	K(NdA3+L)=3.61 K(NdA3+2L)=6.87	1972KKc (69630)	859

Medium: CHCl3. A=4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedione
---
Nd+++	sp	alc/w	?	80%	U		K1=-0.14	1968SRb (69631)	860

Medium: 80% MeOH, 0.1 M NaCl
****
C10H8N4O3 HL CAS 43168-60-1 (6209)
5-Phenylazobarbituric acid;

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  diox/w 25°C  75%  U        K1=4.92   B2=9.44   1986MIa (69733) 861
*************************************************************************
C10H8O2               H2L                    CAS 92-44-4  (1658)
2,3-Dihydroxynaphthalene;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  NaClO4 20°C 0.10M U    M                  1973PAc (69776) 862
                                      K(NdA+L)=6.40, H4A=EDTA
*************************************************************************
C10H8O5S              H3L    DHNSA              (877)
2,3-Dihydroxynaphthalene-6-sulfonic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  NaClO4 30°C 0.20M U    M   K1=9.03        1978MSl (69855) 863
                                      K(Nd(edta)+L)=5.57
-------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.50M C        K1=9.26   B2=16.40  1976LAd (69856) 864
                                      B(NdHL2)=23.71
*************************************************************************
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
-------------------------------------------------------------------------
Nd+++      gl  NaClO4 20°C 0.10M M T H    K1=8.18        1978AKb (69963) 865
Data for 40 C. DH(K1)=-41.2 kJ mol-1, DS(K1)=4 J K-1 mol-1.
*************************************************************************
C10H9NO4S             H2L                    CAS 29021-67-8  (3926)
2-Methyl-8-hydroxyquinoline-5-sulfonic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  NaClO4 30°C 0.10M U TI     K1=4.95   B2=9.61   1988BCd (70200) 866
                                      B3=13.11
in 42.5% MeOH-water: K1=6.03, B2=11.41, B3=15.70
51.8% EtOH-water: K1=6.53, B2=12.09, B3=16.14
*************************************************************************
C10H9N3OS              HL                    CAS 1823-44-5  (4780)
2-(2'-Thiazolylazo)-4-methylphenol; CH3.C6H3(OH).N:N.C3H3NS
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      sp  alc/w  25°C 100%  U                       1989OKb (70350) 867
                                      K1eff=4.28
At pH 3.4 by competition with 18-crown-6. Medium: MeOH, 0.03 M Et4NClO4
*************************************************************************
```

C10H9N3OS HL CAS 60321-26-8 (4671)
2-(2-Thiazolylazo)methylphenol; C3H2NS.N:N.C6H3(CH3)OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ sp diox/w 25°C 10% U K1=9.01 1973KSd (70364) 868
Medium: 10% dioxan, 0.1 M KNO3
****
C10H9N3O2S HL CAS 3012-52-0 (217)
2-(2'-Thiazolylazo)-4-methoxyphenol; CH3O.C6H3(OH).N:N.C3H2N2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ sp KNO3 25°C 0.10M U K1=8.53 1974KSa (70402) 869
****
C10H9O2Br HL CAS 4023-81-8 (1182)
4-Bromo-1-phenyl-1,3-butanedione; Br.C6H4.CO.CH2.CO.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 30°C 75% U K1=7.13 B2=13.26 1979MBc (70437) 870
K3=4.85
****
C10H9O2F HL CAS 29681-98-9 (307)
1-(4-Fluorophenyl)butane-1,3-dione; F.C6H4.CO.CH2.CO.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 30°C 75% U K1=7.08 B2=13.23 1979MBc (70450) 871
K3=4.81
****
C10H10N2O4S H2L CAS 52047-96-8 (4782)
4-Sulfophenyl-3-methylpyrazol-5-one;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ sp oth/un ? ? U 1966TPa (70581) 872
K(Nd+3HL=NdL3+3H)(?)=2.93
****
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
---
Nd+++ gl alc/w 25°C 50% C M K1=7.60 B2=14.20 1993EEa (70617) 873
K(Nd(nta)+L)=7.54
Medium: 50% v/v EtOH/H2O, 0.10 M NaClO4.
****
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
Nd+++	gl	mixed	30°C	75%	U		K1=3.80 K3=3.16	B2=7.21	1969DNb (70637)	874

Medium: 75% acetone, 0.1 M NaClO4

****

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
Nd+++	gl	diox/w	30°C	75%	U		K1=7.24 K3=4.76	B2=13.45	1979MBc (70754)	875
Nd+++	gl	alc/w	25°C	80%	U		K1=7.83 K3=4.13	B2=13.96	1967DZa (70755)	876

Medium: 80% MeOH, 0.1 M NaCl

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	alc/w	24°C	80%	U		K1=7.83 K3 = 4.13	B2=13.96	1967DZb (70756)	877

Medium: 80% v/v MeOH/H2O, 0.1 M NaCl

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	alc/w	22°C	100%	U		K1=10.8 K3=4.4 K4=2.6	B2=19.30	1967ZDa (70757)	878

Medium: 0.1(NaCl),100% methanol.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	mixed	30°C	67%	U		K1=6.94 K3=5.58	B2=13.55	1964DBb (70758)	879

Medium: acetone, 0.1 M NaClO4

****

C10H10O6 H2L CAS 5411-14-3 (2394)

1,2-Phenylenedioxodiethanoic acid; C6H4(O.CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	NaClO4	25°C	0.10M	M		K1=4.45	B2=7.65	1977HCb (70856)	880

****

C10H11NOS L (2831)

Acetothioacetanilide; CH3.CO.CH2.CS.NH.C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	diox/w	25°C	50%	U		K1=5.16	B2=9.81	1986NBa (70883)	881

****

C10H11NO2 L CAS 102-01-2 (250)

Acetoacetanilide; CH3.CO.CH2.CO.NH.C6H5

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

```
------------------------------------------------------------------------------
Nd+++      gl  diox/w 25°C  50%  U        K1=5.77        1986NBa (70912) 882
******************************************************************************
C10H11NO3              HL                          (1960)
N-Hydroxyacetoacetanilide; CH3.CO.CH2.CO.N(OH).C6H5
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Nd+++      gl  diox/w 20°C  82%  U        K1=6.74   B2=12.58  1979KSb (70942) 883
                                         K3=5.67
******************************************************************************
C10H11NO5             H3L                       CAS 100844-86-8  (2108)
N-(2-Hydroxyphenyl)iminodiethanoic acid; HO.C6H4.N(CH2.COOH)2
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Nd+++      sp  oth/un 20°C  dil  U        K1=9.29        1972VAa (71045) 884
                                        B(NdL(OH)2)=21.96
******************************************************************************
C10H11N5O               L                        CAS 105507-56-0  (8131)
N-Methylisatin-beta-amidinohydrazone;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Nd+++      gl  diox/w 30°C  50%  C TIH    K1=4.79   B2= 9.04  1986SGc (71093) 885
Medium: 50% v/v dioxan/H2O, 0.10 M NaClO4. Data for 0.02-0.20 M NaClO4
and 30-50 C. DH(K1)=47.9 kJ mol-1, DS=250 J K-1 mol-1; DH(K2)=56.4, DS=267
******************************************************************************
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
------------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.10M U        K1=8.64   B2=15.82  1964THa (71269) 886
******************************************************************************
C10H12N4O5             HL    Inosine          CAS 58-63-9  (2344)
Hypoxanthine-9-beta-D-ribofuranoside;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Nd+++      gl  KNO3   35°C 0.10M U    M   K1=4.29        1987RRc (71391) 887
                                        B(Nd(gly)L)=9.90
                                        B(Nd(his)L)=10.56
******************************************************************************
C10H12N4O6            H2L    Xanthosine       CAS 5968-90-1  (1176)
3,9-Dihydro-9-ribofuranosyl-1H-purine-2,6-dione;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Nd+++      gl  KNO3   35°C 0.10M U    M                  1987RRc (71498) 888
```

K(Nd+HA+HL)=5.16
K(Nd+HB+HL)=5.81
K(Nd+HL)=4.35

HA=glycine, HB=histidine.

****

C10H12O2 HL CAS 1946-74-3 (202)
3-Isopropyltropolone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	diox/w	30°C	50%	U	M	K1=7.64	B2=14.24	1980SGa (71593)	889
							K(Nd(NTA)+L)=5.87			
Nd+++	gl	alc/w	24°C	80%	U		K1=8.4	B2=15.39	1968DZb (71594)	890
							K3=5.7			
							K4=4.2			

Medium: 80% MeOH, 0.1 M NaCl

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	sp	alc/w	?	3%	U		K1=6.70	1967GDb (71595)	891

Medium: 3% EtOH, 0.2 M NaClO4

****

C10H12O4 HL CAS 5936-18-9 (2743)
2-Hydroxy-3,4-dimethoxyacetophenone; (HO)(CH3O)2C6H2.CO.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	diox/w	15°C	50%	C T H		K1=7.72	B2=14.58	1987GBa (71655)	892

K1(35, 40, 50 C) = 7.51, 7.28, 7.12 respectively. DH(K1)=31.8 kJ mol-1

****

C10H12O5 HL CAS 490-64-2 (8492)
2,4,5-Trimethoxybenzoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	diox/w	25°C	76%	M		K1=7.33	1978PMa (71674)	893

Medium: 76% v/v dioxane/H2O, 0.10 M NaClO4.

****

C10H12O5 HL CAS 570-02-5 (8493)
2,4,6-Trimethoxybenzoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	diox/w	25°C	76%	M		K1=6.84	1978PMa (71681)	894

Medium: 76% v/v dioxane/H2O, 0.10 M NaClO4.

****

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

Nd+++ gl R4N.X 25°C 0.10M C T K1=4.22 1991SMa (72481) 895
K(Nd+HL)=2.74

IUPAC evaluation

****

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
Nd+++	gl	KCl	25°C	0.10M	U		K1=12.62		1980MMe (73161)	896
							K(Nd+HL)=6.51			
Nd+++	sp	oth/un	25°C	?	U		K1=11.15		1979MMb (73162)	897
Nd+++	sp	KCl	25°C	0.10M	U		K1=11.15	B2=13.46	1979MMe (73163)	898
Using a glass electrode: K1=11.35										
Nd+++	gl	KNO3	20°C	0.10M	U		K1=13.41		1975DPa (73164)	899
Nd+++	gl	KNO3	30°C	0.10M	U		K1=8.09		1972STc (73165)	900
Nd+++	vlt	KNO3	25°C	0.10M	U		K1=13.03		1971BGb (73166)	901

****

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
Nd+++	cal	NaClO4	25°C	0.10M	C	H			1987YJa (73989)	902
DH(K1)=-14.5 kJ mol-1, DS(K1)=259 J K-1 mol-1.										
Nd+++	gl	KCl	25°C	1.0M	U				1984BKc (73990)	903
							K(NdL+H)=1.54			
Nd+++	gl	NaNO3	25°C	0.50M	U	I	K1=16.00		1984KKb (73991)	904
Nd+++	gl	NaClO4	25°C	0.20M	U		K1=12.53		1984LSd (73992)	905
Nd+++	sp	oth/un	20°C	0.20M	U	M			1982ATa (73993)	906
							K(NdL+oxalate)=2.34			
Nd+++	gl	NaClO4	28°C	0.20M	U		K1=10.56		1982LSa (73994)	907
Nd+++	gl	NaClO4	20°C	0.02M	U	M			1982MPd (73995)	908
							K(NdL+PO4)=3.36			
Nd+++	kin	KNO3	23°C	0.10M	U		K1=15.63		1979MKa (73996)	909
Nd+++	gl	KNO3	35°C	0.10M	U	T			1978DMb (73997)	910
							K(NdL+ADP)=3.28			

ADP= Adenosine-5-diphosphate

Nd+++ gl KNO3 35°C 0.10M U T 1978DMb (73998) 911
K(NdL+A)=3.21

H3A= Guanosine-5-diphosphoric acid

Nd+++ gl KNO3 35°C 0.10M U T 1978DMb (73999) 912
K(NdL+A)=3.10

H3A= Cytidine-5-diphosphoric acid

Nd+++ gl KNO3 35°C 0.10M U T 1978DMb (74000) 913
K(NdL+A)=3.01

H3A= Uridine-5-diphosphoric acid

Nd+++ gl KNO3 25°C 0.10M U T 1978DMb (74001) 914
K(NdL+ATP)=4.42

Nd+++ vlt KNO3 20°C 0.10M U K1=16.77 1978NLb (74002) 915

Nd+++ gl NaClO4 25°C 0.50M U K1=15.75 1977GGb (74003) 916

Nd+++ sp none 25°C 0.0 C K1=14.23 1977HAa (74004) 917
Medium not reported.

Nd+++ gl KCl 25°C 1.00M U K2=3.56 1976BKa (74005) 918
K(NdL+HL)=2.20
K(2NdL+L)=6.03

Nd+++ gl KCl 25°C 1.0M U 1976GMb (74006) 919
K(NdL+H)=2.14

Nd+++ sp KCl 25°C 0.10M U K2=3.56 1975BKa (74007) 920
K(2NdL+L)=6.03
K(NdL+HL)=2.20

Nd+++ gl KNO3 30°C 0.10M U M 1975RTa (74008) 921
K(NdL+IDA)=3.17
K(NdL+NTA)=4.53
K(NdL+HEDTA)=4.68

Nd+++ EMF KCl 25°C 0.10M U T 1974BKb (74009) 922
K(NdL+H)=1.86

Nd+++ gl KCl 25°C 1.0M C K2=3.56 1974BKe (74010) 923
K(NdL+HL)=2.20
K(2NdL+L=Nd2L3)=6.03

Nd+++ gl KNO3 25°C 0.10M U M 1974TDa (74011) 924
K(NdL+Citrate)=3.2

```
Nd+++      gl  KNO3   20°C 0.10M U    M                  1974TDa (74012) 925
                                        K(NdL+Citrate)=3.5
-------------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.10M U T  M                  1973TRb (74013) 926
                                        K(NdL+HA)=3.20
                                        K(NdL+A)=4.90
(NdL+HA):K(2 C)=3.70, K(35 C)=3.36, K(45 C)=3.10, (NdL+A):K(2 C)=4.96
K(35 C)=5.15, K(45 C)=4.70, H5A=tripolyphosphoric acid
-------------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.10M U T  M                  1973TRb (74014) 927
                                        K(NdL+A)=4.4
K(2 C)=4.7, K(35 C)=4.6, K(45 C)=4.5, H4A=adenosine triphosphate
-------------------------------------------------------------------------------
Nd+++      sp  KCl      ?   1.0M U    M                  1971TKg (74015) 928
                                        B(NdLA)=20.4
H3A=nitrilotriacetic acid
-------------------------------------------------------------------------------
Nd+++      sp  oth/un   ?  0.05M U                       1970MAf (74016) 929
                                        K(NdL+OH)=1.8
-------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M U    M                  1969AIb (74017) 930
                                        K(NdL+A)=6.45, H4A=tiron
-------------------------------------------------------------------------------
Nd+++      dis oth/un 25°C    ?  U        K1=16.57       1969PJa (74018) 931
Method: paper electrophoresis. Medium: pH=1.86
-------------------------------------------------------------------------------
Nd+++      sp  KCl    25°C  1.0M U                       1968KSb (74019) 932
                                        K(NdL+HL)=1.88
-------------------------------------------------------------------------------
Nd+++      ix  KCl    25°C 0.10M U   H    K1=16.05       1959BDb (74020) 933
DH(K1)=-3.4 kJ mol-1, DS=293 J K-1 mol-1
-------------------------------------------------------------------------------
Nd+++      cal KNO3   20°C 0.10M U   H                   1958SRa (74021) 934
DH(K1)=-12.4 kJ mol-1, DS=275 J K-1 mol-1
-------------------------------------------------------------------------------
Nd+++      gl  oth/un 20°C 0.01M U        K1=16.48       1955WSa (74022) 935
Polarography also used
-------------------------------------------------------------------------------
Nd+++      gl  KCl    20°C 0.10M U  I   T K1=16.47       1954SGa (74023) 936
In 0.1 M KNO3 K1=16.61, K(NdL+H)=4.39
-------------------------------------------------------------------------------
Nd+++      gl  KCl    20°C 0.10M U  I   T K1=16.06       1953WSa (74024) 937
By polarography, 0.1 M KNO3, K1=16.0
-------------------------------------------------------------------------------
Nd+++      gl  KCl    20°C 0.10M U        K1=16.75       1952VIa (74025) 938
*******************************************************************************
C10H16N5O13P3         H4L    ATP              CAS 56-65-5  (403)
Adenosine-5'-triphosphoric acid;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
```

Nd+++ gl NaClO4 20°C 0.20M U T H K1=7.16 B2=10.93 1993VLa (74802) 939
K(Nd(nta)+L)=4.10
K(Nd(edta)+L)=3.90
Data for 30, 40 C. DH(K1)=7.66 kJ mol-1, DS(K1)=163 J K-1 mol-1. DH(K2)=
17.2, DS(K2)=131; DH(Nd(nta)+L)=14.4, DS=128; DH(Nd(edta)+L)=17.2, DS=134.

Nd+++ gl R4N.X 25°C 0.10M C T K1=6.58 1991SMa (74803) 940
K(Nd+HL)=3.63
IUPAC evaluation

Nd+++ gl KCl 25°C 0.10M U K1=6.47 B2=10.47 1988SSd (74804) 941
K(Nd+HL)=4.22

Nd+++ kin oth/un 25°C 0.05M C K1=6.54 1983MCc (74805) 942
Method: inhibition of the hexokinase reaction, pH 8.0 (0.05 M TAPS).

Nd+++ gl KNO3 35°C 0.10M U M 1972TRc (74806) 943
K(Nd(EDTA)+L)=4.6
****
C10H16O2 HL CAS 100563-25-5 (4706)
2-Butanoylcyclohexanone; CH3.CH2.CH2.CO.C6H9O

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl oth/un 30°C 0.10M U K1=9.43 B2=17.96 1972DSe (74923) 944
K3=8.59
****
C10H17N2O10P H5L CAS 69219-70-1 (7961)
Bis{[bis(carboxymethyl)amino]methyl}phosphinic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaCl 25°C 0.16M C K1=14.64 2001XRa (75025) 945
K(Nd+HL)=8.64
K(NdL+H)=3.27
B(NdHL)=17.91
****
C10H17N3O6S H3L Glutathione CAS 70-18-8 (333)
Glutamyl-cysteinyl-glycine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaClO4 25°C 0.10M U TIH K1=7.000 2003GSb (75134) 946
Values for 0.05-0.2 M NaClO4, 15-45 C and 10-30% MeOH/H2O, 20% EtOH/H2O,
20% DMF/H2O. At I=0, K1=8.050. DH(K1)=-29.8 kJ mol-1, DS(K1)=-54.
****
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
Nd+++	sp	oth/un	20°C	0.50M	U		K1=14.76 K(NdL+HL)=1.46	1980MFa (75450)	947
Nd+++	gl	KCl	25°C	1.00M	U		K1=14.96	1978MGa (75451)	948
Nd+++	gl	NaClO4	25°C	0.50M	U		K1=14.47	1977GGb (75452)	949
Nd+++	EMF	KCl	25°C	1.0M	U		K2=3.48 K(NdL+HL)=1.70 K(NdL+H4L)=2.35	1977GMa (75453)	950
Method: Pt/H2 electrode.									
Nd+++	EMF	KCl	25°C	1.0M	U	M	K(Nd(edta)+L)=3.23 K(Nd(edta)+HL)=1.75 K(Nd(edta)+H2L)=1.82	1977GMa (75454)	951
Method: Pt/H2 electrode.									
Nd+++	gl	NaClO4	20°C	0.10M	U		K(NdL+A)=3.47 K(NdL+B)=3.53	1974PJa (75455)	952
HA=pentane-2,4-dione, B=1-phenylbutane-1,3-dione									
Nd+++	sp	oth/un	?	?	U		K1=14.48	1973KAd (75456)	953
Nd+++	gl	NaClO4	25°C	1.0M	U		K2=2.73 K(NdL+HL)=1.78 K(NdL+H2L)=1.05 K(NdL+H3L)=1.63	1973NMa (75457)	954
Nd+++	gl	oth/un	20°C	?	U		K(NdL+H2L)=0.21 K(NdL+HL)=1.62 K(NdL+L)=3.31	1971MNa (75458)	955
Nd+++	gl	KNO3	25°C	0.10M	U	M	K(NdL+A)=4.07 K(NdL+B)=4.23 K(NdL+C)=3.41	1963TLb (75459)	956
H2A=iminodiethanoic acid, H2B=hydroxyethyliminodiethanoic acid, H2C=diaminoethane-N,N'-diethanoic acid									
Nd+++	EMF	oth/un	20°C	0.10M	U		K1=15.16	1962PMa (75460)	957
Nd+++	gl	KNO3	15°C	0.10M	U	T H	K1=15.02	1961MFb (75461)	958
K1=14.94(20 C), 14.86(25 C), 14.78(30 C), 14.83(35 C), 14.75(40 C) DH(K1)=-17.8 kJ mol-1(25 C), DS=225 J K-1 mol-1									

Nd+++ gl KNO3 25°C 0.10M U K1=14.7 1956SPa (75462) 959
****
C10H18O2 HL CAS 53329-78-7 (4710)
Decane-2,4-dione; CH3.CO.CH2.CO.(CH2)5.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ dis R4N.X 25°C 0.10M U K1=6.9 B2=12.90 1976JGa (75592) 960
B3=17.45
B4=22.5
B5=36.7
****
C10H18O4 H2L Sebacic acid CAS 111-20-6 (3308)
Decanedioic acid; HOOC.(CH2)8.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl KNO3 25°C 0.20M U M 1990KMf (75603) 961
K(Nd(nta)+L)=6.24
K(Nd(hedta)+L)=6.13
K(Nd(cdta)+L)=6.78
K(Nd(dtpa)+L)=5.78
hedta is N-(hydroxyethyl)diaminoethane-N,N',N'-triethanoic acid.

Nd+++ gl oth/un 20°C 0.10M U 1960WKa (75604) 962
Kso=-24.68
****
C10H19N3O4 HL Leu-Gly-Gly CAS 1187-50-4 (1230)
Leucyl-glycyl-glycine; H2N.CH(CH2.CH(CH3)2).CO.NH.CH2.CO.NH.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl KNO3 25°C 0.10M U T H K1=3.27 1981SGf (75693) 963
Data for 35 and 45 C. DH(K1)=5.5 kJ mol-1, DS(K1)=81 J K-1 mol-1.

Nd+++ gl KCl 25°C 0.10M U K1=1.75 1973FMa (75694) 964
****
C10H20O2 HL Capric acid CAS 334-48-5 (2542)
Decanoic acid; CH3.(CH2)8.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ sp none ? 0.0 U K1=4.0 1957VIb (75906) 965
****
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
---
Nd+++ cal non-aq 25°C 100% U H K1=3.93 1993LLa (76095) 966

Medium: MeCN. DH(K1)=-33.8 kJ mol-1.

Nd+++ dis non-aq 25°C 100% U B2=8.19 1990NIa (76096) 967

B2=extraction eq.constant: M+3P+2(S)=ML2P3(S); solvent(S)=CH2Cl2, P=picrate

---

Nd+++ ISE non-aq 25°C 100% U K1=6.55 B2=8.65 1982MDa (76097) 968

Medium: propylene carbonate

****

C10H21O5P L CAS 27784-76-5 (4758)

t-Butyl diethoxyphosphonacetate; (CH3.CH2O)2.PO.CH2.CO.O.C(CH3)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	sp	non-aq	?	100%	U			1972DBb (76213)	969
							K(Nd(NO3)3+L)=0.34		

Medium: tetrahydrofuran

****

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
Nd+++	ISE	non-aq	25°C	100%	C		K1=5.17	1986BDa (76466)	970

Medium: propylene carbonate, 0.1 M Et4NClO4

****

C10H26N4O6P2 H4L CAS 200951-96-8 (7643)

1,4,7,10-Tetraazacyclododecane-1,7-bis(methanephosphonic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	KCl	25°C	0.10M	C		K1=17.2	1998BRa (76808)	971
							*K(NdL)=-8.0		
							K(NdL+H)=7.2		
							B(NdHL2)=36.5		

****

C11H8O3 H2L CAS 86-48-6 (1129)

1-Hydroxy-2-naphthoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	diox/w	25°C	75%	U		K1=4.07	1975DJa (77014)	972

****

C11H8O3 L CAS 1133-72-8 (2614)

2-Aceto-1,3-indandione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	diox/w	30°C	75%	U	T	K1=4.17 B2=8.19	1984APa (77039)	973
Nd+++	gl	mixed	22°C	60%	U		K1=3.86 B2=7.34	1979JMa (77040)	974

K3=3.08

Medium: 60% acetone/H2O

****

C11H8O3 H2L CAS 2083-08-1 (1131)

2-Hydroxy-1-naphthoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	diox/w	25°C	75%	U		K1=5.56		1975DJa (77063)	975

****

C11H8O3 HL CAS 483-35-6 (3347)

2-Hydroxy-3-methyl-1,4-naphthoquinone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	diox/w	35°C	75%	M		K1=4.7	B2=8.22	1986SSc (77076)	976

****

C11H8O3 H2L CAS 92-70-6 (1130)

2-Hydroxy-3-naphthoic acid (3-Hydroxy-2-naphthoic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	diox/w	20°C	50%	U	T	K1=8.21	B2=16.26	1977SKf (77126)	977
							B3=24.21			
							K3=7.95			
Nd+++	gl	diox/w	25°C	75%	U		K1=5.06		1975DJa (77127)	978

****

C11H8O4 HL CAS 7555-37-5 (4812)

3-Acetyl-4-hydroxycoumarin

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	diox/w	35°C	50%	U		K1=3.64	B2=6.34	1971MAa (77182)	979

Medium: 50% dioxan, 0.01 M NaClO4

****

C11H8O4 HL CAS 6724-42-1 (6183)

8-Formyl-7-hydroxy-4-methyl-2H-1-benzopyran-2-one; CHO.C9H3O(:O)(CH3)(OH)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	diox/w	30°C	50%	U	TI M	K1=4.88	B2=8.66	1985ECa (77205)	980
							K3=2.62			

20 C: K1=5.29, K2=4.09, K3=2.96; 40C: K1=4.50, K2=3.49, K3=2.30

****

C11H8O6S H3L CAS 66695-90-7 (1996)

1-Hydroxy-4-sulfo-2-naphthoic acid;

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

---

```
Nd+++      gl  NaClO4 25°C 0.10M C        K1=7.44   B2=12.60  1979LAb (77231) 981
                                         K(Nd+HL)=2.12
**************************************************************************
C11H8O6S             H3L                     CAS 15509-36-1  (2658)
3-Hydroxy-7-sulfo-2-naphthoic acid;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M C        K1=6.82        1976MLb (77254) 982
                                         K(Nd+HL)=2.07
**************************************************************************
C11H8O9S2            H4L                     CAS 67097-84-1  (1995)
1-Hydroxy-4,7-disulfo-2-naphthoic acid;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Nd+++      cal NaClO4 25°C 0.10M C   H    K1=7.85   B2=12.5   1986LLc (77284) 983
                                         K(Nd+HL)=2.07
DH(Nd+HL)=2.6 kJ mol-1, DS=48 J K-1 mol-1
**************************************************************************
C11H9NO2             H2L                     CAS 7470-09-9  (8481)
2-Hydroxy-1-naphthaldoxime;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Nd+++      gl  diox/w 25°C  75%  U        K1=8.35        1978MCd (77317) 984
Medium: 75% v/v dioxane/H2O, 0.10 M NaClO4.
**************************************************************************
C11H9NO4             H2L                     CAS 4321-82-7  (4829)
3-Acetyl-4-hydroxycoumarin oxime;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Nd+++      gl  diox/w 35°C  50%  U                        1971MAa (77425) 985
                                         K(Nd+HL)=3.43
                                         K(Nd+2HL)=6.06
Medium: 50% dioxan, 0.01 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
--------------------------------------------------------------------------
Nd+++      sp  NaNO3  25°C 0.10M C        K1=10.02       1984OHa (77566) 986
                                         K(Nd+HL)=4.07
                                         *K(NdHL)=-6.35
Medium pH 4.8-6.3.
--------------------------------------------------------------------------
Nd+++      sp  KCl    20°C 0.10M U                        1971EKa (77567) 987
                                         K(Nd+HL)=3.45
```

Nd+++ sp NaClO4 20°C 0.10M U K1=9.8 1967SNb (77568) 988
K(Nd+HL)=11.1

****

C11H9N3O3 HL HNQS CAS 62331-38-8 (6194)
2-Hydroxy-1,4-naphthoquinone monosemicarbazone; C10H5(OH)(O):N.NH.CO.NH2

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

---

Nd+++ gl diox/w 35°C 75% U TI K1=4.87 B2=8.49 1987SSb (77612) 989
At I=0.1 M. At 35 C,I=0.05, K1=5.05,K2=4.10; I=0.01, K1=5.37, K2=4.65,
At 40 C, I=0.1 M, K1=4.21, K2=3.94; at 45 C, I=0.1 M, K1=4.43, K2=3.61

****

C11H10N4O3 HL CAS 92265-24-2 (6211)
5-(2'-Methylphenylazo)barbituric acid;

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

---

Nd+++ gl diox/w 25°C 75% U K1=4.69 B2=8.94 1986MIa (77732) 990

****

C11H10N4O4 HL CAS 92265-26-4 (6210)
5-(2'-Methoxyphenylazo)barbituric acid;

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

---

Nd+++ gl diox/w 25°C 75% U K1=4.98 B2=9.75 1986MIa (77746) 991

****

C11H11N3O2S HL Sulfapyridine CAS 144-83-2 (8356)
4-Amino-N-2-pyridinyl-benzenesulfonamide;

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

---

Nd+++ gl alc/w 25°C 50% C M K1=9.72 B2=18.13 1993EEa (77933) 992
K(Nd(nta)+L)=4.61
Medium: 50% v/v EtOH/H2O, 0.10 M NaClO4.

****

C11H12N2O2 HL CAS 103314-23-4 (6182)
2-(N-2-Pyrrolidimino)benzoic acid; C4H7N:N.C6H4.COOH

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

---

Nd+++ gl NaClO4 25°C 0.10M U TIH B2=12.58 1986GSb (78020) 993
35 C: B2=13.12; 45 C:B2=13.20. DH(B2)=-47.7 kJ mol-1, DS=98 J K-1 mol-1

****

C11H12N2O2 HL Tryptophan CAS 73-22-3 (3)
2-Amino-3-(3-indolyl)propanoic acid; H2N.CH(CH2.C8H6N)COOH

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

---

Nd+++ gl KNO3 35°C 0.10M U K1=5.18 1990RSe (78224) 994

Nd+++ gl KCl 25°C 0.10M U T H K1=4.5 1976BFc (78225) 995
For 55C K1= 4.10

Nd+++ gl KCl 25°C 0.10M U K1=4.45 B2=8.85 1972BFe (78226) 996
****
C11H12N2O5S HL CAS 56475-09-3 (8410)
3-(4'-Sulfophenylhydrazo)-pentane-2,4-dione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl oth/un 30°C 0.10M U B2=21.70 1985EEb (78325) 997
Medium: not stated. For 3'-sulfophenylhydrazo-, B2=21.88; for 2'-sulfo-
phenylhydrazo-, B2=23.86; for 4'-methyl-2'-sulfophenylhydrazo-, B2=22.91.
****
C11H12N4O2S HL Sulfamerazine CAS 127-79-7 (8431)
4-Amino-N-(4-methyl-2-pyrimidinyl)benzenesulfonamide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl alc/w 25°C 50% C K1=3.72 B2= 7.42 1993EEa (78359) 998
K(Nd(nta)+L)=4.57
Medium: 50% v/v EtOH/H2O, 0.10 M NaClO4.
****
C11H12O2 HL CAS 4023-79-4 (305)
1-(4-Methylphenyl)butane-1,3-dione; CH3.C6H4.CO.CH2.CO.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 30°C 75% U K1=7.34 B2=13.87 1979MBc (78375) 999
K3=4.76
****
C11H12O3 HL CAS 94-02-0 (3351)
Ethyl benzoylacetate; C6H5.CO.CH2.CO2.C2H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl mixed 25°C 75% U K1=8.07 B2=15.08 1971DRa (78402)1000
Medium: 75% acetone, 0.1 M NaClO4
****
C11H13NO3 H2L CAS 63467-38-9 (1961)
4-Methyl-N-hydroxyacetoacetanilide; CH3.CO.CH2.CO.N(OH).C6H4.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 20°C 82% U K1=6.66 B2=12.57 1979KSb (78499)1001
K3=5.69
****
C11H13NO3 H2L CAS 67777-63-3 (8480)
N-[1-(2-Hydroxyphenyl)ethylidene]-beta-alanine;

```
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M U TI     K1=8.67   B2=15.57  1978MSj (78527)1002
Also data for 30 and 35 C and 0.01 and 0.05 M NaClO4.
*******************************************************************************
C11H13NO4S             HL                      CAS 58943-48-9  (1411)
N-Acetylacetonylidene-orthanilic acid; HO3S.C6H4.N:C(CH3).CH2.CO.CH3
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Nd+++      EMF NaClO4 25°C 0.10M U        K1=18.20       1982MSc (78594)1003
*******************************************************************************
C11H13NO5              H3L    HBIDA            CAS 7372-13-6  (1603)
N-(2-Hydroxybenzyl)iminodiethanoic acid; HO.C6H4.CH2.N(CH2.COOH)2
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.10M C        K1=12.46  B2=21.98  1989YSa (78634)1004
                                         K(Nd+HL)=5.80
                                         K(Nd+2HL)=11.86
-------------------------------------------------------------------------------
Nd+++      gl  KNO3   20°C 0.10M U        K1=13.27  B2=22.58  1983MSc (78635)1005
*******************************************************************************
C11H13NO6              H4L                      CAS 59036-09-8  (2111)
2,5-Dihydroxybenzyliminodiethanoic acid; (HO)2.C6H3.CH2.N(CH2.COOH)2
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Nd+++      sp  oth/un 25°C    ?  U                         1974VKa (78681)1006
                                         K(Nd+HL)=14.60
*******************************************************************************
C11H14N2O4             H2L    Gly-Tyr          CAS 658-79-5  (533)
Glycyl-tyrosine; H2N.CH2.CO.NH.CH(CH2.C6H4.OH).COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 0.10M U                         1973FMa (78859)1007
                                         K(Nd+HL)=2.70
*******************************************************************************
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
-------------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.10M U        K1=6.28   B2=10.54  1964THa (78889)1008
*******************************************************************************
C11H16N2O10            H5L    CEDTA            CAS 62394-58-5  (1080)
1-Carboxy-1,2-diaminoethane-N,N,N',N'-tetraethanoic acid;
(HOOCCH2)2NCH(COOH)CH2N(CH2COOH)2
```

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ sp oth/un 20°C 0.10M U K2=2.19 1982KTc (79112)1009
K(Nd+HL)=10.64
K(Nd+H2L)=5.78
****
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
---
Nd+++ vlt KNO3 20°C 0.10M U K1=12.58 1981NSc (79317)1010

Nd+++ EMF KNO3 25°C 0.10M U K1=15.49 1980KBc (79318)1011

Nd+++ vlt KNO3 20°C 0.10M U K1=17.32 1978NLb (79319)1012

Nd+++ vlt KNO3 20°C 0.10M U K1=17.54 1964ICb (79320)1013
****
C11H18N2O8 H4L CAS 38539-29-0 (2573)
1,3-Diaminopropane-N,N'-di(1,4-butanedioic acid)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl KNO3 25°C 0.10M U K1=9.37 1976GKd (79370)1014
****
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
---
Nd+++ ix KNO3 20°C 0.10M U H K1=12.34 1971AWa (79460)1015
*K(NdHL)=-4.03
DH=17.55 kJ mol-1, DS=290.5 J K-1 mol-1. Polarography also used
---
Nd+++ gl KNO3 20°C 0.10M U K1=12.36 1964LAa (79461)1016
K(NdL+H)=4.03
Also K1=12.32. By polarography: K1=12.34
****
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
---
Nd+++ gl KNO3 25°C 0.10M M K1=12.88 1986PLc (79569)1017
****
C11H18N2O9 H4L CAS 668-21-1 (2562)
2-Hydroxy-1,3-diaminopropane-N,N'-di(1,4-butanedioic) acid

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.10M U        K1=10.21       1976GKd (79601)1018
*************************************************************************
C11H18O2               HL                     CAS 40072-58-3  (4820)
2-(3'-Methylbutanoyl)cyclohexanone  (2-isovaleryl cyclohexanone);
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  mixed  30°C  75%  U        K1=9.54   B2=18.09  1972DSd (79655)1019
                                         K3=7.93
Medium: 75% acetone
*************************************************************************
C11H18O2               HL                     CAS 5601-52-5  (4821)
2-Butanoyl-6-methylcyclohexanone  (2-butyryl-6-methylcyclohexanone);
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  mixed  30°C  75%  U        K1=10.69  B2=20.77  1972DSd (79666)1020
Medium: 75% acetone
*************************************************************************
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
-------------------------------------------------------------------------
Nd+++      cal non-aq 25°C 100%  U   H    K1=3.81        1993LLa (79866)1021
Medium: MeCN.  DH(K1)=-15.6 kJ mol-1.
*************************************************************************
C11H26N2O6              L    Bistris-propane  CAS 64431-96-5  (7920)
1,3-Bis[tris(hydroxmethyl)methylamino]propane;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M C                         2001GYb (79957)1022
                                        K(2Nd+2OH+2L)=21.71
                                        K(2Nd+4OH+2L)=32.77
                                        K(2Nd+5OH+2L)=37.20
*************************************************************************
C12H7O2F7               L                      (6994)
1-Heptafluoropropyl-3-phenylpropane-1,3-dione; C3F7.CO.CH2.CO.C6H5
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  alc/w  22°C  80%  U        K1=6.40   B2=12.08  1995MTa (80187)1023
                                         K3=5.64
Medium: 0.1 M NaClO4 in 80% (v/v) EtOH/H2O.
*************************************************************************
C12H8N2                 L    Phenanthroline   CAS 66-71-7  (144)
1,10-Phenanthroline;
```

```
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Nd+++      sp  non-aq 25°C 100%  C   H    K1=1.48        2002KNc (80500)1024
Medium: N,N-dimethylformamide, 0.20 M Et4NClO4.
By calorimetry: DH(K1)=-24.6 kJ mol-1.
-------------------------------------------------------------------------------
Nd+++      dis non-aq 25°C 100%  C   HM                  1998YHa (80501)1025
                                        K(NdA3+L)=7.42
Method: solvent extraction from 0.10 M NaClO4 into CHCl3. HA is
1-(2-thienyl)-4,4,4-trifluoro-1,3-butanedione. DH(NdA3+L)=7 kJ mol-1.
-------------------------------------------------------------------------------
Nd+++      sp  NaCl   25°C  5.0M C        K1=2.83        1996XCa (80502)1026
-------------------------------------------------------------------------------
Nd+++      sp  alc/w    ?   20%  U  I     K1=1.78   B2=2.63   1968SRb (80503)1027
Medium: 20-80% MeOH. 40% MeOH: K1=1.65, K2=0.8
(50%):K1=1.70, K2=0.6, K1(60%)=1.89, (80%):K1=1.85, K2=0.9
*******************************************************************************
C12H9N2OCl             HL                      CAS 73446-98-7  (9081)
N-2-(5-Chloropyridyl)salicylaldimine;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Nd+++      gl  alc/w  25°C  50%  C T H    K1=4.42   B2= 7.67  1997GSa (80588)1028
Medium: 50% v/v EtOH/H2O, 0.20 M KCl. At 50 C, K1=4.07, K2=3.00.
DH(K1)=-26 kJ mol-1.
*******************************************************************************
C12H10N2O              HL                      CAS 1823-47-8  (3969)
2-Salicylideneaminopyridine; (2-OH).C6H4.CH:N.C5H4N
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Nd+++      gl  alc/w  25°C  50%  C T H    K1=5.32   B2= 9.47  1997GSa (80675)1029
                                        K3=3.08
Medium: 50% v/v EtOH/H2O, 0.20 M KCl. At 50 C, K1=4.90, K2=3.81,
K3=2.84. DH(K1)=-31 kJ mol-1.
*******************************************************************************
C12H10N2O              HL                      CAS 3860-58-0  (9082)
2-[(2-Pyridylmethylene)amino]phenol;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Nd+++      gl  alc/w  25°C  50%  C        K1=6.63   B2=12.39  1997GSa (80685)1030
Medium: 50% v/v EtOH/H2O, 0.20 M KCl.
*******************************************************************************
C12H10N2S               L                      CAS 19257-96-6  (9084)
2-(2-Pyridyl)benzothiazoline;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
```

Nd+++ gl alc/w 25°C 50% C K1=6.50 B2=11.79 1997GSa (80743)1031
Medium: 50% v/v EtOH/H2O, 0.20 M KCl.
****
C12H10N6O4S H2L CAS 77327-19-6 (8343)
2-[4-Amino-3-(1,2,4-triazolylazo)]napthol-4-sulphonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaClO4 30°C 0.10M U T H B2=12.49 1982GMb (80785)1032
B3=15.27
Data for 40 and 50 C. Also DH and DS values.
****
C12H11N3OS HL (6787)
2-Hydroxy-1-naphthaldehyde thiosemicarbazone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 20°C 75% U I K1=7.40 B2=13.50 1992SSc (80892)1033
Medium: 75% v/v dioxan/H2O; 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
---
Nd+++ gl diox/w 20°C 75% U I K1=8.670 B2=15.645 1992SSc (80921)1034
Medium: 75% v/v dioxan/H2O; 0.1 M NaClO4
****
C12H11O4P HL CAS 838-85-7 (2133)
Diphenylphosphoric acid; (C6H5O)2P(O)OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ kin oth/un 25°C 0.02M U K1=2.08 1974GMc (80952)1035
****
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
---
Nd+++ sp NaClO4 25°C 0.50M U K1=2.153 1987MSa (80971)1036
****
C12H12N2O3 HL Nalidixic acid CAS 389-08-2 (1401)
1-Ethyl-1,4-dihydro-7-methyl-4-oxo-1,8-naphthyridine-3-carboxylic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl alc/w 22°C 0.1M U K1=6.31 B2=11.95 2000TBb (81079)1037
K3=4.15
Medium: 0.1 M NaClO4 in 70% v/v EtOH/H2O

****
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
---
Nd+++ sp NaClO4 25°C 0.50M U K1=2.249 1987MSa (81201)1038
****
C12H16O7S HL CAS 204931-01-1 (7817)
2,3-Benzo-1,4,7,10-tetraoxacyclododeca-2-ene-4'-sulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ dis R4N.X 25°C 0.12M C K1=2.39 1998SUa (81699)1039
Medium: 0.12 M Et4NBr.
Method:solvent extraction into cyclohexane/di(2-ethylhexyl)phosphoric acid
****
C12H18N2O5S H2L CAS 80459-15-0 (1595)
2-Nitroso-5-(N-propyl-3-sulfopropylamino)phenol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl KNO3 25°C 0.10M C K1=5.70 1988YSa (81816)1040
****
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
---
Nd+++ gl R4N.X 25°C 0.10M C K1=5.93 1988CCb (81840)1041
****
C12H18N2O8 H4L CAS 76079-31-7 (2587)
trans-1,2-Diaminocyclohexane-N,N'-di(propanedioic acid)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ EMF KNO3 25°C 0.10M U K1=13.33 1985SGa (81873)1042

Nd+++ EMF KNO3 25°C 0.10M U K1=15.04 B2=19.14 1980SGb (81874)1043
****
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
---
Nd+++ vlt KNO3 20°C 0.10M U K1=17.77 1968NLa (82030)1044
****
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
Nd+++	gl	KNO3	20°C	0.10M	U		K1=7.94	1975DPa (82086)	1045
Nd+++	gl	KNO3	25°C	0.10M	U		K1=7.70	1973GBd (82087)	1046
Nd+++	gl	KNO3	30°C	0.10M	U		K1=7.79	1972STc (82088)	1047

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
Nd+++	vlt	KNO3	20°C	0.10M	U		K1=16.00	1976NKa (82140)	1048

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
Nd+++	gl	NaClO4	25°C	0.10M	U	IH	K1=12.34 B(Nd+HL)=6.16	1988RNa (82173)	1049

DH(K1)=-3.00 kJ mol-1, DH(Nd+HL)=25.8, DS(K1)=226 J K-1 mol-1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	vlt	R4N.X	30°C	0.01M	C		K1=15.08	1981GMh (82174)	1050

Method: polarography, using Cd as indicator ion. Medium: 0.01 M Et4NBr.

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
Nd+++	sp	NaClO4	20°C	0.10M	U		K1=17.60	1971ISa (82321)	1051
Nd+++	vlt	oth/un	20°C	0.10M	U		K1=17.70	1966DMa (82322)	1052
Nd+++	vlt	KNO3	20°C	0.10M	U		K1=17.70	1966NSb (82323)	1053

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
Nd+++	sp	NaClO4	20°C	0.10M	U		K1=16.47	1971ISa (82410)	1054
Nd+++	vlt	oth/un	20°C	0.10M	U		K1=16.06	1966DMa (82411)	1055

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
Nd+++	gl	KNO3	25°C	0.10M	C		K1=14.22	1985TPa (82469)	1056
Nd+++	sp	oth/un	19°C	dil	U		K1=14.7 K(Nd+H2L)=2.1	1966ZAb (82470)	1057

****

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
Nd+++	sp	oth/un	20°C	0.50M	U		K1=17.34 K(Nd+H2L)=1.97	1968KKb (82553)	1058
Nd+++	sp	oth/un	19°C	?	U		K1=18.33 K(Nd+HL)=10.77 K(Nd+H2L)=3.21	1965ZAa (82554)	1059
Nd+++	EMF	KNO3	20°C	0.10M	U		K1=17.67	1962MMc (82555)	1060
Nd+++	oth	oth/un	?	?	U		K1=15.16	1957HLa (82556)	1061

****

C12H20N2O10 H4L CAS 10258-50-1 (3993)
(2,3-Dihydroxytetramethylenedinitrilo)tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	oth	oth/un	?	?	U		B(Nd2L)=21.57	1967LDa (82590)	1062

Method: high-frequency titration

****

C12H20O8N2 H4L (6908)
2-Methyl-1,2-diaminopropane-N,N,N'N'-tetraethanoic acid;
(HOOC.CH2)2N.CH2.C(CH3)2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	vlt	KNO3	20°C	0.10M	C		K1=16.60	1978NLa (82678)	1063

****

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
Nd+++	vlt	KNO3	20°C	0.10M	U		K1=10.68	1985LBc (82701)	1064

****

C12H24N2O2 L CAS 67867-45-2 (3994)
N,N'-Bis(2'-hydroxypent-3'-enyl)-1,2-diaminoethane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	sp	oth/un	19°C	0.05M	U		K1=1.50	1961AVb (83016)	1065

****
C12H24N4O4 H2L (7343)
1,4,7,10-Tetraazacyclododecane-1,7-bis(ethanoic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	R4N.X	25°C	0.10M	C		K1=12.56	1998CCb (83090)	1066

****
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
Nd+++	dis	R4N.X	25°C	0.12M	C		K1=0.94	1998SUa (83553)	1067

Medium: 0.12 M Et4NBr.
Method:solvent extraction into cyclohexane/di(2-ethylhexyl)phosphoric acid

Nd+++	dis	non-aq	25°C	100%	U		B(NdPL)=6.79 B(NdPL2)=8.70	1993INa (83554)	1068

K is the equilibrium constant for extraction of the metal picrate (P) into CH2Cl2. For extraction from D2O, B=7.15 and 9.16.

Nd+++	cal	non-aq	25°C	100%	U	IH	K1=3.50	1993LLa (83555)	1069

Medium: MeCN. DH(K1)=-36.2 kJ mol-1. In MeOH K1=2.44, DH(K1)=20.0

Nd+++	dis	non-aq	25°C	100%	U		B2=8.70	1990NIa (83556)	1070

B2=extraction eq.constant: M+3P+2(S)=ML2P3(S); solvent(S)=CH2Cl2, P=picrate

Nd+++	sp	alc/w	25°C	100%	U		K1eff=3.40	1989OKb (83557)	1071

At pH 3.4 by competition with 18-crown-6. Medium: MeOH, 0.03 M Et4NClO4

****
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
Nd+++	gl	alc/w	25°C	100%	C		K1=7.86	1983ANb (83873)	1072

The equilibration took 7-12 days. Medium: MeOH, 0.05 M Et4NClO4

****
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
-------------------------------------------------------------------------
Nd+++      gl  non-aq 25°C 100%  C        K1=5.46        1989BPa (84014)1073
Medium: anhydrous propylene carbonate, 0.1 M Et4NClO4
*************************************************************************
C12H27N3O3              L                      CAS 490025-63-3  (8901)
1,3,5-Trideoxy-1,3,5-tris(ethylamino)-cis-inositol;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  KCl    25°C  0.1M C                        2002DGc (84076)1074
                                          B(Nd3H-6L3)=-26.4
*************************************************************************
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
-------------------------------------------------------------------------
Nd+++      gl  R4N.X  25°C 0.10M U        K1=14.36       1996BJa (84160)1075
                                         K(Nd+HL)=10.74
                                         K(Nd+H2L)=5.44
Medium: 0.1 M Me4NCl
*************************************************************************
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
-------------------------------------------------------------------------
Nd+++      gl  NaNO3  25°C 0.20M C        K1=8.03        1991KKa (84344)1076
-------------------------------------------------------------------------
Nd+++      gl  NaCl   20°C 0.10M C        K1=10.2        1988SJb (84345)1077
*************************************************************************
C13H5O2F13S             L                        (6997)
1-(2-Thienyl)-3-tridecafluorohexylpropane-1,3-dione; C6F13.CO.CH2.CO.C4H3S
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  alc/w  22°C  80%  U        K1=5.63   B2=10.76  1995MTa (84458)1078
                                         K3=4.28
Medium: 0.1 M NaClO4 in 80% (v/v) EtOH/H2O.
*************************************************************************
C13H8O3               H2L                      CAS 18931-22-1  (2913)
peri-Dihydroxynaphthindenone;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      sp  alc/w  25°C  50%  U        K1=9.90        1982HMa (84505)1079
*************************************************************************
C13H9FO2S              HL                      CAS 43191-66-8  (6154)
1-(2'-Thienyl)-3"-fluoro-2"-hydroxyphenyl)-prop-1-one-2-ene;
```

C4H3S.CH:CH.CO.C6H3(OH)F

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	NaClO4	30°C	0.10M	U		K1=5.16	1989SHa (84517)	1080

****

C13H9N2O4Cl HL CAS 36016-30-5 (182)
N-(4-Chlorophenyl)-3-nitrobenzohydroxamic acid; O2N.C6H4.CO.N(C6H4Cl).OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	diox/w	35°C	50%	A		K1=7.56 B2=13.63 K3=5.04	1977AKa (84604)	1081

****

C13H9N3OS L (6217)
Acenaphthenequinone Monothiosemicarbazone; C12H6O:N.NH.CS.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	diox/w	25°C	75%	U	TI	K1=8.90 B2=16.98	1986SSd (84623)	1082

Medium:0.1 M NaClO4. 30 C: K1=8.93, K2=8.32; 40 C: K1=8.75, K2=8.01; 50 C: K1=8.45,K2=7.48; I=0.01 M: K1= 9.67,K2=8.98; I=0.05: K1=9.18,K2=8.56

****

C13H11NOS H2L (7306)
2-(Salicylideneamino)thiophenol, Salicylaldehyde-2-mercaptoanil; HO.C6H4.CH:N.C6H4.SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	alc/w	25°C	70%	U		K1=12.71 B2=23.68	1995IFa (85046)	1083

Medium: 70% v/v EtOH/H2O, 0.10 M NaCl.

****

C13H11NO2 H2L CAS 78-75-2 (6258)
3-(Salicylideneamino)phenol; HO.C6H4.CH:N.C6H4.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	alc/w	25°C	50%	U		K1=5.4 B2=9.40 K3=3.8	1977DWa (85087)	1084

****

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
Nd+++	gl	diox/w	35°C	50%	A		K1=10.80 B2=20.11 K3=8.29	1977AKa (85168)	1085
Nd+++	gl	NaClO4	25°C	0.10M	U		K1=7.88 B2=14.18 K3=5.03	1969DSb (85169)	1086

****
C13H11NO4S H2L CAS 124452-52-4 (8496)
2-[(Phenylimino)methy]phenol 4-sulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaClO4 25°C 0.10M U T HM K1=4.82 1995SSd (85207)1087
K(Nd(bpy)+L)=4.17
K(Nd(phen)+L)=3.93
K(Nd(his)+L)=3.50
Data for 35 and 45 C. DH and DS values reported.
****
C13H11NS HL CAS 42152-36-3 (8401)
2-[(Phenylmethylene)amino]benzenethiol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl alc/w 25°C 70% U K1=7.97 B2=15.61 1995IFa (85231)1088
Medium: 70% v/v EtOH/H2O, 0.10 M NaCl. Also data for p-Cl, p-NMe2, p-OH,
p-OCH3, p-CH3, p-NO2 substituted benzaldehyde Schiff bases.
****
C13H11N2O3F3 HL (5563)
3-(2-Acetylphenylhydrazone)-1,1,1-trifluoropentane-2,4-dione;
CF3.CO.C(CO.CH3):N.HN.C6H4.COCH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 30°C 75% U K1=8.47 B2=15.51 1988ESb (85251)1089
****
C13H12N2O HL CAS 59129-92-9 (9080)
N-2-(5-Methylpyridyl)salicylaldimine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl alc/w 25°C 50% C T H K1=7.22 B2=12.30 1997GSa (85343)1090
K3=4.51
Medium: 50% v/v EtOH/H2O, 0.20 M KCl. At 50 C, K1=6.65, K2=4.69,
K3=4.16. DH(K1)=-42 kJ mol-1.
****
C13H12N2O3S HL (6203)
Salicylidenesulfanilamide, 4-(N-(2-Hydroxybenzylene))aminosulanilamide;
H2NSO2C6H4N:CHC6H4OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl oth/un 25°C 0.10M U K1=12.461 1987KSc (85363)1091
****
C13H12N4O L Diphenylcarbaz. CAS 538-62-5 (1195)
Diphenylcarbazone; C6H5.NH.NH.CO.N:N.C6H5

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      EMF alc/w  20°C  50%  U        K1=3.40        1971MAc (85416)1092
Medium: 50% EtOH, 0.1 M NaClO4
*************************************************************************
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
-------------------------------------------------------------------------
Nd+++      EMF alc/w  20°C  50%  U        K1=1.75        1971MAc (85467)1093
Medium: 50% EtOH, 0.1 M NaClO4
*************************************************************************
C13H14N2O3              HL                          (4940)
3-(2-Acetylphenylhydrazone)pentane-2,4-dione;(CH3.CO)2C:N.NH.C6H4(CO.CH3)
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  diox/w 30°C  75%  U        K1=10.75  B2=20.09  1988ESb (85614)1094
*************************************************************************
C13H15NO6               H3L                         (4999)
2-Benzylnitrilotriethanoic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      oth oth/un 25°C 0.10M U        K1=11.5   B2=19.78  1962HKa (85741)1095
*************************************************************************
C13H17N3O5              H2L    Tyr-Gly-Gly      CAS 21778-69-8  (863)
Tyrosyl-glycyl-glycine; H2N.CH(CH2.C6H4.OH).CO.NH.CH2.CO.NH.CH2.COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.10M U T H                    1981SGf (86024)1096
                                          K(Nd+HL)=3.55
Data for 35 and 45 C. DH(Nd+HL)=11.6 kJ mol-1, DS(Nd+HL)=107 J K-1 mol-1.
*************************************************************************
C13H19NO3               H2L                         (2031)
2-(1-(2-Hydroxyphenyl)-ethylimine)-3-methylbutanoic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M U TIH    K1=10.35  B2=18.65  1980SSc (86057)1097
*************************************************************************
C13H20N2O8              H4L                         CAS 123064-92-6  (7929)
trans-1,3-Cyclopentanediaminotetraethanoic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  KCl    25°C  1.0M U        K1=11.98       1989CMb (86125)1098
                                         K(NdHL+H)=3.86
```

K(NdL+H)=4.68

****

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
Nd+++	gl	KNO3	25°C	0.10M	C		K1=9.77	1982PPd (86201)	1099

K(Nd+HL)=6.52

****

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
Nd+++	vlt	KNO3	20°C	0.10M	U		K1=17.76	1974NLa (86232)	1100

****

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
Nd+++	gl	KNO3	20°C	0.10M	U		K1=11.30	1981NSc (86260)	1101

****

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
Nd+++	vlt	KNO3	20°C	0.10M	U		K1=17.57	1968NLb (86287)	1102

****

C13H22N2O9 H4L DETAP CAS 36829-96-6 (5602)
Bis(2-aminoethyl)ether-N,N,N'-triethanoic acid-N'-(3-propanoic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	KNO3	25°C	0.10M	C		K1=14.80	1985PLa (86307)	1103

K(Nd+HL)=9.40

****

C13H26O5 L (6410)
15,15-Dimethyl-1,4,7,10,13-pentaoxacyclohexadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	cal	non-aq	25°C	100%	C	H	K1=2.68	1998LBc (86482)	1104

Medium: acetonitrile. DH(K1)=-12.85 kJ mol-1, DS(K1)=8.3 J K-1 mol-1.

****

C14H8O4 H2L Alizarin CAS 72-48-0 (1058)
1,2-Dihyhroxyanthraquinone;

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  oth/un 25°C 0.10M U        K1=11.91       1981EIa (86647)1105
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U    M   K1=10.20       1987VSa (86746)1106
K(Nd(cdta)+L)=5.42, K(Nd(dtpa)+L)=5.25.
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.20M U    M   K1=10.13       1984LSe (86747)1107
                                          K(Nd(edta)+L)=8.21
                                          B(Nd(edta)L)=20.74
********************************************************************************
C14H9NO3               HL                    CAS 116-85-8  (1020)
1-Amino-4-hydroxyanthraquinone;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      sp  oth/un 30°C    ?  U        K1=5.43        1972JAa (86795)1108
********************************************************************************
C14H9N5Cl2              L                    CAS 7071-45-6  (8463)
1,5-Bis(4-chlorophenyl)-3-cyanoformazan;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  diox/w 25°C  70%  U        K1=7.32   B2=13.43  1996DAb (86851)1109
Medium: 70% dioxane/H2O, 0.10 M NaClO4.
********************************************************************************
C14H10NO2F             HL                    CAS 87221-43-0  (6155)
1-(2'-Pyridyl)-3-(3-fluoro-2-hydroxyphenyl)-prop-1-one-2-ene;
C5H4N.CH:CH.CO.C6H3(OH)F
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 30°C 0.10M U        K1=5.33        1989SHa (86887)1110
********************************************************************************
C14H11N3O              HL                    CAS 24854-76-0  (1380)
2-(1H-Benzimidazol-2-yl-methylene-amino) phenol;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  diox/w 25°C  50%  U        K1=7.03   B2=13.49  1982OCa (86995)1111
********************************************************************************
C14H11N5                L                    CAS 7014-08-6  (8461)
1,5-Diphenyl-3-cyanoformazan;
--------------------------------------------------------------------------------
```

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  diox/w 25°C  70%  U        K1=7.05   B2=14.01  1996DAb (87001)1112
Medium: 70% dioxane/H2O, 0.10 M NaClO4.
*************************************************************************
C14H12NO2Br            HL                    CAS 13664-21-6  (6243)
N-(4-Tolyl)-4'-bromobenzohydroxamic acid; Br.C6H4.CO.N(C6H4.CH3).OH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  diox/w 25°C  50%  U T H    K1=9.70   B2=17.92  1983AGb (87048)1113
                                         K3=7.21
35 C: K1=9.20, K2=7.71, K3=6.70
*************************************************************************
C14H12NO2Cl            HL                    CAS 32939-57-4  (6242)
N-(4-Tolyl)-4'-chlorobenzohydroxamic acid; Cl.C6H4.CO.N(C6H4.CH3).OH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  diox/w 25°C  50%  U T H    K1=9.58   B2=17.65  1983AGb (87074)1114
                                         K3=7.08
35 C: K1=9.07  K2=7.58, K3=6.57
*************************************************************************
C14H12NO2F             HL                    CAS 13664-15-8  (6241)
N-(4-Tolyl)-4'-fluorobenzohydroxamic acid; F.C6H4.CO.N(C6H4.CH3).OH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  diox/w 25°C  50%  U T H    K1=9.85   B2=18.23  1983AGb (87083)1115
                                         K3=7.37
35 C: K1=9.35  K2=7.89, K3=6.87
*************************************************************************
C14H12N2O2             HL                     (6311)
4-Hydroxy-3-formyl-2'-methylazobenzene; (HO)(CHO)C6H3.N:N.C6H4.CH3
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  alc/w  28°C  60%  U        K1=5.64   B2=9.95   1976WPb (87177)1116
                                         B3=13.65
Data also for 4'-methyl analogue. K1=5.22, K2=3.97, B3=12.79
*************************************************************************
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
-------------------------------------------------------------------------
Nd+++      gl  diox/w 25°C  50%  U  I     K1=3.48   B2=6.40   1985ANa (87219)1117
*************************************************************************
C14H12N2O4             HL                    CAS 29556-26-1  (6244)
N-(4-Tolyl)-4'-nitrobenzohydroxamic acid; O2N.C6H4.CO.N(C6H4.CH3).OH
```

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  diox/w 25°C  50%  U T H    K1=9.25   B2=16.80  1983AGb (87244)1118
                                         K3=6.74
35 C: K1=8.74, K2=7.04, K3=6.24
********************************************************************************
C14H12N2O4             HL                      CAS 854-7-78-9  (183)
N-2-Tolyl-3-nitrobenzohydroxamic acid; O2N.C6H4.CO.N(C6H4.CH3).OH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  diox/w 35°C  50%  A        K1=8.85   B2=16.19  1977AKa (87252)1119
                                         K3=6.33
********************************************************************************
C14H12N2O4             HL                        (179)
N-3-Tolyl-3-nitrobenzohydroxamic acid; O2N.C6H4.CO.N(C6H4.CH3).OH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  diox/w 35°C  50%  A        K1=9.00   B2=16.55  1977AKa (87264)1120
                                         K3=6.54
********************************************************************************
C14H12N2O4             HL                      CAS 85407-74-5  (180)
N-4-Tolyl-2-nitrobenzohydroxamic acid; O2N.C6H4.CO.N(C6H4.CH3).OH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  diox/w 35°C  50%  A        K1=9.31   B2=17.12  1977AKa (87277)1121
                                         K3=6.79
********************************************************************************
C14H12N2O4             HL                        (221)
N-4-Tolyl-3-nitrobenzohydroxamic acid; O2N.C6H4.CO.N(C6H4.CH3).OH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      EMF diox/w 35°C  50%  U        K1=9.31   B2=17.12  1977AKa (87290)1122
                                         K3=6.79
********************************************************************************
C14H13NO2              HL    DPAHA       CAS 4463-22-3  (880)
2,2'-Diphenylacetohydroxamic acid; (C6H5)2.CH.CO.NH.OH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  alc/w  30°C  50%  U T H    K1=6.82        1981RSb (87406)1123
Medium: 50% v/v EtOH, 0.1 M KNO3. K1=7.92(I=0), 7.20(I=0.05)
********************************************************************************
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
-------------------------------------------------------------------------
Nd+++      gl  diox/w 25°C  50%  U T H    K1=10.04  B2=18.74  1983AGb (87448)1124
                                         K3=7.70
35 C: K1=9.60, K2=8.05, K3=7.06
*************************************************************************
C14H13NO2              HL                      CAS 889-29-2  (6259)
N-Salicylidene-3-methoxyaniline; HO.C6H4.CH:N.C6H4.OCH3
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  alc/w  25°C  50%  U        K1=5.35   B2=9.50   1977DWa (87530)1125
*************************************************************************
C14H13NO4S            H2L                       (3660)
2-Aminobenzenesulfonic acid 2-hydroxyacetophenone Schiff base;
HSO3.C6H4.N:C(CH3).C6H4.OH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M U T H    K1=5.22   B2= 9.46  1978GKb (87578)1126
Data for 25-35 C and I=0.01-0.10 M. At I=0.0 M, DH(K1)=47.5 kJ mol-1,
DS(K1)=340 J K-1 mol-1.
*************************************************************************
C14H14N2O2             HL                        (6168)
N-(2-Hydroxy-3-methoxybenzylidene)phenylhydrazine; C6H5.NH.N:CH.C6H3(OH)OCH3
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  diox/w 30°C  75%  U        K1=8.70        1988MKd (87657)1127
*************************************************************************
C14H15N2O3Cl          H2L                       (8285)
5,5'-Dimethylcyclohexane-2-(2'-hydroxy-4'-chlorophenyl)hydrazono-1,3-dione;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  mixed  30°C 0.10M U T H    K1=11.58  B2=21.22  1988TRb (87723)1128
Medium: 0.1 M KNO3 in 75% v/v isopropanol/water
*************************************************************************
C14H15O4P              HL                      CAS 843-24-3  (2134)
Di(4-methylphenyl)phosphoric acid; (CH3C6H5O)2P(O)OH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      kin oth/un 25°C 0.02M U        K1=3.05        1974GMc (87796)1129
*************************************************************************
C14H16N2O2S            HL                      CAS 189231-67-2  (8475)
2-Thiophenylhydrazodimedone;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
```

Nd+++ gl diox/w 25°C 75% C T H K1=13.30 B2=24.96 1997EIa (87872)1130
Medium: 75% v/v dioxane/H2O, 0.10 M KNO3. Data for 10-40 C. DH(K1)=-6.60
kJ mol-1, DS(K1)=-7.80 J K-1 mol-1; DH(K2)=-6.14, DS(K2)=-8.00.
****
C14H16N2O3 H2L (8284)
5,5'-Dimethylcyclohexane-2-(2'-hydroxyphenyl)hydrazono-1,3-dione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl mixed 30°C 0.10M U T H K1=12.00 B2=22.18 1988TRb (87890)1131
Medium: 0.1 M KNO3 in 75% v/v isopropanol/water
****
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
---
Nd+++ gl NaClO4 25°C 1.00M C H K1=12.63 1992YNa (87963)1132
By calorimetry: DH(K1)=13.5 kJ mol-1, DS=287 J K-1 mol-1
****
C14H19NO7 HL (6775)
16-Nitro-3,6,9,12-tetraoxabicyclo[12.3.1]octadeca-1(18),14,16-trien-18-ol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl R4N.X 25°C 0.10M C K1=2.98 1990CBe (88151)1133
****
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
---
Nd+++ dis non-aq 25°C 100% U B2=8.04 1990NIa (88349)1134
B2=extraction eq.constant: M+3P+2(S)=ML2P3(S); solvent(S)=CH2Cl2, P=picrate
---
Nd+++ ISE R4N.X 25°C 0.10M C K1=2.27 1986XJa (88350)1135
****
C14H20O8S HL CAS 127461-53-4 (7818)
2,3-Benzo-1,4,7,10,13-pentaoxacyclopentadeca-2-ene-4'-sulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ dis R4N.X 25°C 0.12M C K1=1.81 1998SUa (88395)1136
Medium: 0.12 M Et4NBr.
Method:solvent extraction into cyclohexane/di(2-ethylhexyl)phosphoric acid
****
C14H22N2O8 H4L cis-1,2-CDTA CAS 92761-75-6 (2846)
cis-1,2-Diaminocyclohexane-N,N,N',N'-tetraethanoic acid;

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

```
--------------------------------------------------------------------------------
Nd+++      gl  KCl    25°C  1.0M U        K1=4.41        1987CMe (88433)1137
                                          K(NdL+H)=7.02
********************************************************************************
C14H22N2O8            H4L    cis-1,3-CDTA     CAS 92681-23-7  (2847)
cis-1,3-Diaminocyclohexane-N,N,N',N'-tetraethanoic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  KCl    25°C  1.0M U        K1=7.08        1987CMe (88446)1138
                                          K(NdHL+H)=5.39
                                          K(NdL+H)=8.19
********************************************************************************
C14H22N2O8            H4L    cis-1,4-CDTA     CAS 92681-25-9  (2848)
cis-1,4-Diaminocyclohexane-N,N,N',N'-tetraethanoic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  KCl    25°C  1.0M U        K1=7.51        1987CMe (88460)1139
                                          K(NdHL+H)=6.14
                                          K(NdL+H)=7.38
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  KCl    25°C  1.0M U        K1=17.73       1987CMe (88729)1140
                                          K(NdL+H)=2.11
--------------------------------------------------------------------------------
Nd+++      sol none   25°C  0.0  C                       1986FMa (88730)1141
                                          Kso(Nd2(CO3)3)=-34.10
--------------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 1.00M U        K1=17.73       1984MFa (88731)1142
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   27°C 0.10M U    M                  1981KSe (88732)1143
                                          K(Nd+L+HA)=12.97
                                          K(NdL+HA)=5.85
H2A=Citraconic acid
--------------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 1.00M U        K1=18.38       1978MGa (88733)1144
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.50M U        K1=17.16       1977GGb (88734)1145
--------------------------------------------------------------------------------
Nd+++      sp  none   25°C  0.0  C        K1=15.82       1977HAa (88735)1146
Medium not reported.
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   30°C 0.10M M T HM                  1977RTa (88736)1147
                                          K(NdL+A)=3.40
                                          K(NdL+D)=3.60
```

```
                                        K(NdL+C)=3.92
A=glycolate, C=malate, D=lactate. Also at 35 C
-------------------------------------------------------------------------------
Nd+++      gl  KNO3   30°C 0.10M U    M                 1975RTb (88737)1148
                                        K(NdL+salicylate)=5.87
                                        K(NdL+sulfosalicylate)=4.42
                                        K(Nd+8-quinolinolate)=3.90
-------------------------------------------------------------------------------
Nd+++      EMF KNO3   25°C 0.10M U T H    K1=17.69       1962MHa (88738)1149
DH(K1)=20.9 kJ mol-1, DS=410 J K-1 mol-1. At 20 C: K(NdL+H)=2.22
-------------------------------------------------------------------------------
Nd+++      gl  oth/un   ?     ?  U        K1=17.64       1957HLa (88739)1150
-------------------------------------------------------------------------------
Nd+++      vlt KNO3   20°C 0.10M U        K1=17.68       1954SGa (88740)1151
                                        K(NdL+H)=3.98
*******************************************************************************
C14H22N2O8            H4L    trans-1,3-CDTA   CAS 92681-24-8  (2849)
trans-1,3-Diaminocyclohexane-N,N,N',N'-tetraethanoic acid;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Nd+++      gl  KCl    25°C  1.0M U        K1=7.55        1987CMe (88839)1152
                                        K(NdHL+H)=5.25
                                        K(NdL+H)=7.67
*******************************************************************************
C14H22N2O8            H4L    trans-1,4-CDTA   CAS 92681-26-0  (2843)
trans-1,4-Diaminocyclohexane-N,N,N',N'-tetraethanoic acid;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Nd+++      gl  KCl    25°C  1.0M U        K1=7.96        1987CMe (88863)1153
                                        K(NdHL+H)=5.91
                                        K(NdL+H)=7.03
-------------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 1.00M U        K1=7.96        1984MFb (88864)1154
*******************************************************************************
C14H22N2O9            H2L                    CAS 93031-53-9  (5830)
1,4,7-Trioxa-10,13-diazacyclopentadecane-8,15-dione-10,13-diethanoic acid;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Nd+++      gl  R4N.X  25°C 0.10M C        K1=8.08        1988CCb (88884)1155
*******************************************************************************
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
-------------------------------------------------------------------------------
Nd+++      cal KNO3   25°C 0.10M C T                    1988MIa (89326)1156
DH(K1)=-30.1 kJ mol-1, DS=303.5 J mol-1 K-1. Also data for 283 and 313 K
```

Nd+++ cal NaClO4 25°C 0.10M C H 1987YJa (89327)1157
DH(K1)=-23.3 kJ mol-1, DS(K1)=336 J K-1 mol-1.

Nd+++ sp KCl 25°C 0.10M U M 1984NMa (89328)1158
K(Nd+YbL=NdYbL)=3.4

Nd+++ gl KCl 25°C 1.00M U K1=21.60 1978MGa (89329)1159

Nd+++ cal NaClO4 25°C 0.50M U 1977CGc (89330)1160
DH(K1)=-38.4 kJ mol-1

Nd+++ gl NaClO4 25°C 0.50M U K1=20.09 1977GGb (89331)1161

Nd+++ sp oth/un 20°C 0.60M U M K1=21.05 1970KTd (89332)1162
K(NdL+A=NdA+L)=5.0
H4A=ethylenediaminetetraacetic acid.

Nd+++ sp KCl ? 0.50M U K1=22.95 1970VMb (89333)1163

Nd+++ cal KNO3 27°C 0.10M U H 1968CLd (89334)1164
DH(K1)=-29.7 kJ mol-1, DS=314 J K-1 mol-1

Nd+++ sp oth/un 19°C 0.10M U K1=21.96 1963GAd (89335)1165
K(2Nd+H5L=Nd2L+5H)=26.25

Nd+++ EMF KNO3 25°C 0.10M U H K1=21.60 1962MTc (89336)1166
DH(K1)=-24.3 kJ mol-1, DS=332 J K-1 mol-1

Nd+++ gl oth/un 25°C 0.10M U K1=22.24 1959HCa (89337)1167

Nd+++ vlt oth/un ? ? U K1=15.20 1957HLa (89338)1168
Addiotional Method:Glass Electrode
****
C14H23O2P HL CAS 64266-08-6 (2137)
Phenyl(2-ethylhexyl)phosphinic acid; (C6H5)(2-C2H5C6H12)P(O)OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ kin oth/un 25°C 0.02M U K1=3.88 1974GMc (89473)1169
****
C14H23O2P HL CAS 31066-81-6 (2136)
Phenyl(n-octyl)phosphinic acid; (C6H5)(C8H17)P(O)OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ kin oth/un 25°C 0.02M U K1=3.84 1974GMc (89476)1170
****
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
--------------------------------------------------------------------------------
Nd+++      vlt KNO3   20°C 0.10M U        K1=15.35       1969NDc (89515)1171
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      vlt KNO3   20°C 0.10M U        K1=17.67       1974NLa (89535)1172
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      sp  KCl    20°C 1.00M U                        1980KMd (89590)1173
                                      K(Nd+HL)=5.63
                                      K(NdHL+HL)=4.20
                                      K(NdH2L2+HL)=2.64
--------------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 1.00M U    M                   1976BKa (89591)1174
                                      K(NdEDTA+L)=3.7
                                      K(NdEDTA+HL)=3.7
                                      K(2NdEDTA+L)=7.4
--------------------------------------------------------------------------------
Nd+++      gl  KCl    25°C 0.10M U                        1974KPd (89592)1175
                                      K(Nd+HL)=6.43
--------------------------------------------------------------------------------
Nd+++      sp  oth/un 19°C 0.20M U    M                   1963GAb (89593)1176
                                      K(Nd+H2L)=2.54
                                      K(Nd+HL)=9.43
                                      K(Nd+2HL)=14.07
                                      K(NdHL+A)=1.22
K(Nd+HL+A)=10.65, K(Nd+2HL+A)=15.36,; HA=ethanoic acid. I=0.1-0.25 M
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      vlt KNO3   20°C 0.10M U        K1=17.65       1968NLb (89638)1177
********************************************************************************
C14H24N2O8            H2L                        CAS 17619-53-3  (5833)
Diaminoethane-N,N'-Di(ethylaceto)-N,N'-diethanoic acid;
(-CH2.N(CH2.COOH)CH2.COOC2H5)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
```

```
--------------------------------------------------------------------------------
Nd+++      gl  R4N.X  25°C 0.10M C        K1=10.35       1988CCb (89655)1178
********************************************************************************
C14H24N2O8            H4L    EDTP              (2936)
Diaminoethane-N,N,N',N'-tetrapropanoic acid; (HOOC.CH2CH2)2N.CH2CH2.N(CH2CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M U                        1995HAa (89688)1179
                                       K(Nd+HL)=4.81
                                       K(Nd+H2L)=4.16
                                       K(Nd+H3L)=3.04
                                       B(NdHL)=14.24
B(NdH2L)=19.71, B(NdH3L)=22.76
********************************************************************************
C14H24N2O9            H4L    BPETA            CAS 87720-52-3  (5077)
Bis-(3-di(carboxymethyl)aminopropyl)ether;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  KNO3   25°C 0.10M U        K1=11.66       1984TPa (89734)1180
                                       K(Nd+HL)=7.03
********************************************************************************
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
--------------------------------------------------------------------------------
Nd+++      gl  NaNO3  25°C  0.0  U        K1=16.24       1996KDb (89899)1181
Extrapolated from data for I=0.05-0.15 M NaNO3.
--------------------------------------------------------------------------------
Nd+++      gl  NaNO3  25°C 0.10M U  I     K1=16.08       1996KDc (89900)1182
Data for 0.05 and 0.15 M NaNO3. At I=0, K1=16.24.
--------------------------------------------------------------------------------
Nd+++      gl  NaNO3  25°C 0.10M M        K1=16.08       1996KDd (89901)1183
Data for 0.05-0.15 M NaNO3. At I=0, K1=16.24.
--------------------------------------------------------------------------------
Nd+++      gl  NaNO3  25°C 0.10M M  I     K1=16.08       1995KDb (89902)1184
Data for 0.05 and 0.15 M NaNO3. At I=0, K1=16.24.
--------------------------------------------------------------------------------
Nd+++      gl  NaNO3  25°C 0.10M M  I     K1=16.08       1995KDc (89903)1185
Data for 0.05 and 0.15 M NaNO3. At I=0, K1=16.24.
--------------------------------------------------------------------------------
Nd+++      gl  NaNO3  25°C 0.10M M  I     K1=16.080      1995KDd (89904)1186
Data for 0.15 and 0.05 M NaNO3. At I=0, K1=16.241.
--------------------------------------------------------------------------------
Nd+++      gl  NaNO3  25°C  0.0  U   HM   K1=16.06       1991ADb (89905)1187
                                       K(NdL+ala)=3.39
                                       K(NdL+phe)=2.94
Extrapolated from data for 0.01-0.1 M NaNO3. Data for 35 and 45 C. At 35 C
```

DH(NdL+ala)=-29.8 kJ mol-1, DS=-35.2; DH(NdL+phe)=-21.0, DS=-14.4.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	KCl	25°C	1.0M	U	M	K2=1.47 K(NdL+ida)=1.6	1985KBb	(89906)1188
Nd+++	sp	oth/un	20°C	0.50M	U		K1=16.16 K(Nd+H2L)=2.0	1968KKb	(89907)1189
Nd+++	EMF	KNO3	20°C	0.10M	U		K1=16.28	1962MMc	(89908)1190
Nd+++	EMF	oth/un	?	?	U		K1=14.59	1957HLb	(89909)1191

****

C14H24N2O10 H4L (2655)
N,N'-Bis(2-hydroxyethane)-N,N'-ethanediaminedibutanedioic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	sp	NaNO3	25°C	0.10M	U		K1=13.89 K(Nd+HL)=6.9	1987MKa	(89977)1192

By potentiometry, K1=14.08, K2=3.16, K(NdL+OH)=3.45

****

C14H25N3O8 H4L DEATA CAS 97315-55-4 (5601)
N,N-Bis(2-aminoethyl)ethylamine-N',N',N",N"-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	KNO3	25°C	0.10M	C		K1=17.44	1985TPa	(90104)1193

****

C14H25N3O9 H4L CAS 4454-15-3 (5078)
((N-(2-Hydroxyethyl)-2,2'-iminodiethylene)dinitrilo)tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	vlt	KCl	?	0.10M	U		K1=13.07	1968VLa	(90118)1194

****

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
Nd+++	gl	R4N.X	25°C	0.10M	M		K1=11.60	1986COb	(90200)1195

****

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
Nd+++	sp	non-aq	25°C	100%	U		K1=3.97	1983PSc	(90422)1196

Medium: DMSO

****

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
Nd+++	gl	R4N.X	25°C	0.10M	C		K1=7.24	1988CCc	(90484)1197

****
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
Nd+++	gl	non-aq	25°C	100%	C		K1=7.55	1989BPa	(90533)1198

Medium: anhydrous propylene carbonate, 0.1 M Et4NClO4
****
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
Nd+++	gl	non-aq	25°C	100%	C		K1=6.49	1989BPa	(90704)1199

Medium: anhydrous propylene carbonate, 0.1 M Et4NClO4
****
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
Nd+++	gl	R4N.X	25°C	0.10M	U		K1=13.07	1996BJa	(90768)1200
							K(Nd+HL)=10.46		
							K(Nd+H2L)=5.50		

Medium: 0.1 M Me4NCl
****
C14H34N4O6P2 H4L CAS 200952-02-9 (7644)
1,4,7,10-Tetraazacyclododecane-1,7-bis(methanephosphonic acid monoethyl ester);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	KCl	25°C	0.10M	C		K1=9.37	1998BRa	(90847)1201

****
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
Nd+++	gl	KNO3	25°C	1.00M	U		K1=17.8	1987PBa	(90876)1202
							K(Nd+HL)=16.1		
							K(Nd+H2L)=14.6		
							K(Nd+H3L)=12.8		

****

C15H11NO4 HL CAS 1776-18-7 (955)
3-Phenyl-1-(2'-hydroxy-5'-nitrophenyl)-2-propen-1-one;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl alc/w 35°C 70% U K1=6.25 B2=12.40 1982SLb (91080)1203
****
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
---
Nd+++ sp alc/w 21°C 50% U K1=10.06 1988CMd (91233)1204

Nd+++ sp alc/w 21°C 50% U I K1=9.11 1981MCb (91234)1205
Medium: 50% MeOH, 0.1 M NaClO4. In 75% MeOH K1=10.29
****
C15H11N3O2 L CAS 74378-23-7 (2745)
Phenanthrenequinone monosemicarbazone; C14H8(:O)(:N.NH.CO.NH2)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 25°C 75% C TIH K1=6.79 B2=12.79 1989SVa (91308)1206
DH(K1)=-45.7 kJ mol-1
****
C15H11O2Br HL CAS 1218-20-0 (954)
3-Phenyl-1-(2'-hydroxy-5'-bromophenyl)-2-propen-1-one;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl alc/w 35°C 70% U K1=7.01 1982SLb (91372)1207
****
C15H11O2Cl HL CAS 1218-24-2 (953)
3-Phenyl-1-(2'-hydroxy-5'-chlorophenyl)-2-propen-1-one;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl alc/w 35°C 70% U K1=6.81 B2=13.35 1982SLb (91394)1208

Nd+++ gl alc/w 35°C 70% U K1=6.81 B2=13.35 1980SLb (91395)1209
****
C15H12OS HL (1261)
mono-Thiodibenzoylmethane; C6H5.CO.CH2.CS.C6H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaClO4 30°C 0.05M U K1=7.70 B2=14.50 1979VMa (91497)1210
K3=6.64
****
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
Nd+++	gl	mixed	15°C	50%	U	T H	K1=8.03	1982BSb (91557)	1211

Medium: 50%CH3CN in H2O

****

C15H12O2 HL CAS 1214-47-7 (951)
3-Phenyl-1-(2'-hydroxyphenyl)-2-propen-1-one, 2'-hydroxychalkone;
C6H5.CH:CH.CO.C6H4.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	alc/w	35°C	70%	U		K1=7.54 B2=14.90	1982SLb (91587)	1212

Medium: 70% EtOH, 0.1 M KNO3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	alc/w	35°C	70%	U		K1=7.54 B2=14.90	1980SLb (91588)	1213

****

C15H12O3 H2L CAS 1469-94-9 (3445)
2-Hydroxydibenzoylmethane; HO.C6H4.CO.CH2.CO.C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	diox/w	30°C	70%	U		K(Nd+HL)=9.80 K(NdHL+HL)=8.85	1996SNa (91607)	1214

Medium: 70% v/v dioxane/H2O, 1.0 M NaClO4.

****

C15H13NO2 HL CAS 959-66-0 (245)
Benzoyl-acetanilide; C6H5.CO.CH2.CO.NH.C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	alc/w	30°C	70%	M		K1=5.40	1978SAb (91633)	1215

****

C15H13NO2 HL CAS 7369-44-0 (4066)
N-3-Diphenylpropenohydroxamic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	dis	oth/un	RT	0.05M	C			1993ATa (91640)	1216

Method: extraction from 0.05 M triethanolamine buffer into chloroform.
Analysis by spectrophotometry. K(Nd+3HL(org)=NdL3(org)+3H)=-18.05

****

C15H13N3O HL CAS 104992-04-3 (6852)
2-((1H-Benzimidazo-2yl-methyl)-iminomethyl)phenol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	alc/w	30°C	60%	U	M	K1=5.54 B2=10.77	1990DOb (91665)	1217

K(NdA+L)=4.49
K(NdB+L)=4.28
K(NdC+L)=4.03
H2A=iminodiethanoic acid, H3B=hydroxyethyliminodiethanoic acid, H3C=NTA.
Data also for 3-chloro and 3-methoxysalicylidene analogues
****
C15H14NOCl HL CAS 268214-29-5 (8398)
4-Chloro-3,5-dimethyl-2-[(phenylimino)methyl]phenol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 30°C 75% M K1=7.05 2000ANa (91693)1218
Medium: 75% v/v dioxan/H2O, 0.10 M NaClO4. Data for an extensive series of
4'-substituted phenylimino derivatives.
****
C15H15NO2 HL (1167)
N-(4-Tolyl)-4'-tolylhydroxamic acid; CH3.C6H4.CO.N(C6H4.CH3)OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 25°C 50% U T H K1=10.30 B2=19.11 1983AGb (91845)1219
K3=7.80
35 C: K1=9.80, K2=8.30, K3=7.30
****
C15H15NO3 HL (6240)
N-4-Tolyl-4'-methoxybenzohydroxamic acid; CH3O.C6H4.CO.N(C6H4.CH3).OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 25°C 50% U T H K1=10.45 B2=19.40 1983AGb (91867)1220
K3=7.94
35 C: K1=9.96, K2=8.46, K3=7.45
****
C15H15O2P L CAS 76229-99-7 (2091)
(Methylcarbonyl)methyldiphenylphosphine oxide; Ph2P(O)CH2C(O)Me
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ sp non-aq 20°C 100% U 1972DBb (91914)1221
K(Nd(NO3)3+L)=0.64
Medium: tetrahydrofuran.
****
C15H18N2O3 HL CAS 116822-13-0 (6743)
5,5-Dimethylcyclohexane-2-(2-hydroxy-4'-methylphenyl)-hydrazono-1,3-dione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl alc/w 20°C 75% U T H K1=10.22 B2=18.02 1993RAa (92032)1222
Medium: 75% v/v MeOH/H2O; 0.10 M KNO3

Nd+++ gl mixed 30°C 0.10M U T H K1=12.18 B2=22.76 1988TRb (92033)1223
Medium: 0.1 M KNO3 in 75% v/v isopropanol/water
****
C15H20N2O6 H3L BEDTA CAS 65311-06-0 (2944)
N-Benzyldiaminoethane-N,N',N'-triethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl KNO3 25°C 0.10M C K1=11.82 1978MPb (92155)1224
****
C15H23N3O2 L CAS 36763-33-4 (5176)
N,N,N',N'-Tetraethyl-2,6-pyridinedicarboxamide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ sp non-aq 25°C 100% M K1=7.5 B2=13.80 1997RPb (92287)1225
B3=21.5
Medium: acetonitrile.
****
C15H25N3O10 H5L (5127)
Diethylenetriamine-N,N,N",N"-tetraethanoic acid-N'-propanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ EMF KCl ? 0.10M U K1=16.14 1966VLa (92378)1226

Nd+++ vlt oth/un ? ? U K1=18.18 1966VLa (92379)1227
****
C15H25N3O10 H5L (6100)
Diethylenetriamine-N,N,N',N"-tetraethanoic acid-N"-propanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl KNO3 25°C 0.10M C K1=18.94 1989SPa (92397)1228
K(Nd+HL)=12.97
****
C15H26N4O9 H4L (7685)
Diethylenetriamine-N,N,N',N",N"-pentaethanoic acid N'-methylamide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl KCl 25°C 0.10M C K1=19.10 2000SBb (92435)1229
****
C15H26N4O9 H4L CAS 137076-43-8 (5085)
Diethylenetriamine-N,N,N',N",N"-pentaethanoic acid N-methylamide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl KCl 25°C 0.10M C K1=17.90 2000SBb (92450)1230
****

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
Nd+++	kin	oth/un	25°C	0.02M	U		K1=4.65	1972GSe	(92659)1231

****
C16H11N5O4 H2L (5153)
1,5-Bis(2-carboxyphenyl)-3-cyanoformazan;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	diox/w	25°C	70%	U	I	K1=12.02 B2=21.00	1996DAb	(92897)1232

Medium: 70% dioxane/H2O, 0.10 M NaClO4. In 50% EtOH/H2O, 0.10 M NaClO4, K1=11.28, K2=9.24.

****
C16H12N2O HL CAS 5603-14-5 (9083)
2-[(Quinolylmethylene)amino]phenol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	alc/w	25°C	50%	C		K1=6.34 B2=11.52	1997GSa	(92928)1233

Medium: 50% v/v EtOH/H2O, 0.20 M KCl.

****
C16H12N2S L CAS 31230-95-2 (9085)
2(2-Benzothiazolinyl)quinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	alc/w	25°C	50%	C		K1=6.09 B2=11.02	1997GSa	(93107)1234

Medium: 50% v/v EtOH/H2O, 0.20 M KCl.

****
C16H12N5O3 L CAS 77251-11-7 (5928)
1-Phenyl-3-methyl-4(2'-nitrophenylhydrazo)-5-pyrazolone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	diox/w	30°C	75%	M		K1=7.03	1987ESa	(93133)1235

****
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
Nd+++	gl	NaClO4	30°C	0.10M	U			1976NDa	(93203)1236
							K(Nd+H2L=NdH2L)=5.45		
							K(NdHL+H)=7.54		
							K(NdL+H)=10.32		

****
C16H13N2O11AsS2 H6L Arsenazo I CAS 520-10-5 (277)

2-(2'-Arsonophenylazo)chromotropic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	sp	oth/un	20°C	0.10M	U				1971SSd (93262)	1237
							K(Nd+H2L)=8.66			

****

C16H14N2O5 H2L (7017)
4-Hydroxy-1-carboxy-7-dimethylaminophenoxaz-3-one methyl ester;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	sp	alc/w	25°C	10%	U	I			1979KRb (93442)	1238
							B3=18.54			

Medium: 10% w/w EtOH/H2O, 0.1 M NaClO4. In 30%: B3=18.59

****

C16H14O2 HL CAS 1775-98-0 (952)
3-Phenyl-1-(2'-hydroxy-5'-methylphenyl)-2-propen-1-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	alc/w	35°C	70%	U		K1=7.84	B2=15.11	1982SLb (93532)	1239

Medium: 70% EtOH, 0.1 M KNO3

****

C16H14O3 H2L CAS 29976-82-7 (8522)
1-(2-Hydroxy-5-methylphenyl)-3-phenyl-1,3-propanedione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	diox/w	30°C	70%	U				1996SNa (93539)	1240
							K(Nd+HL)=9.10			
							K(NdHL+HL)=8.20			

Medium: 70% v/v dioxane/H2O, 1.0 M NaClO4.

****

C16H14O3 HL CAS 3327-24-0 (956)
3-(4''-Methoxyphenyl)-1-(2'-hydroxyphenyl)-2-propen-1-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	alc/w	35°C	70%	U		K1=7.44	B2=14.42	1982SLb (93572)	1241
Nd+++	gl	alc/w	35°C	70%	U		K1=7.44	B2=14.42	1980SLb (93573)	1242

****

C16H14O4 HL BHMMA (5929)
omega-Benzoyl-2-hydroxy-4-methoxy-3-methylacetophenone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	alc/w	30°C	25%	M		K1=6.36	B2=12.02	1987DGb (93583)	1243

Medium: 25% v/v EtOH/H2O

****
C16H15N5 L CAS 7014-14-4 (8462)
1,5-Bis(4-methylphenyl)-3-cyanoformazan;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 25°C 70% U K1=7.70 B2=15.26 1996DAb (93641)1244
Medium: 70% dioxane/H2O, 0.10 M NaClO4.
****
C16H18N2O3 HL (5564)
2-(2-Acetylphenylhydrazone)-5,5-dimethyl-1,3-cyclohexanedione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 30°C 75% U K1=9.87 B2=17.88 1988ESb (93783)1245
****
C16H18N4 L CAS 172665-46-2 (7699)
N,N'-Dimethyl-1,10-phenanthroline-2,9-dimethanamine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaClO4 25°C 0.10M U K1=7.10 2001WZa (93845)1246
B(NdHL)=14.38
Also data for the N,N'-diethyl, isopropyl, butyl and isobutyl derivatives.
****
C16H18N4O4 H2L CAS 161563-39-9 (8399)
1,3-Phenylenediamine bisazoacetylacetone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 25°C 50% U K1=9.40 B2=18.05 1997MAb (93862)1247
Medium: 50% v/v dioxan/H2O, 0.10 M NaClO4. For the 1,4-phenylenediamine
derivative, K1=9.63, K2=9.10.
****
C16H18N4O4 H2L CAS 161563-40-2 (8400)
1,3-Phenylenediamine bisazobenzoylacetone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 25°C 50% U K1=7.16 B2=13.54 1997MAb (93869)1248
Medium: 50% v/v dioxan/H2O, 0.10 M NaClO4. For the 1,4-phenylenediamine
derivative, K1=8.15, K2=7.00.
****
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
---
Nd+++ vlt KNO3 20°C 0.10M U K1=16.56 1969NDb (94045)1249
****

C16H22O6 L (6733)
4'-Acetyl-2,3-benzo-1,4,7,10,13-pentaoxacyclopentadeca-2-ene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ dis non-aq 25°C 100% U 1993INa (94251)1250
B(Nd+3P+2L)=7.45
By solvent extraction into dichloromethane. B is the extraction constant
Nd(aq)+picrate(aq)+L(org)=NdL2P3(org).
****
C16H23NO8 HL (6776)
19-Nitro-3,6,9,12,15-pentaoxabicyclo[15.13.1]heneicosa-1(21),17,19-trien-21-ol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl R4N.X 25°C 0.10M C K1=3.27 1990CBe (94262)1251
****
C16H23NO8 L CAS 53408-96-1 (1765)
2,3-(4'-Nitrobenzo)-1,4,7,10,13,16-hexaoxacyclooctadeca-2-ene;
4'-Nitrobenzo-18-crown-6

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ ISE R4N.X 25°C 0.10M C K1=2.70 1986XJa (94272)1252
****
C16H24O9S HL SB18C6 CAS 185099-14-3 (7819)
2,3-Benzo-1,4,10,13,16-hexaoxacyclooctadeca-2-ene-4'-sulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ dis R4N.X 25°C 0.12M C K1=1.66 1998SUa (94480)1253
Medium: 0.12 M Et4NBr.
Method:solvent extraction into cyclohexane/di(2-ethylhexyl)phosphoric acid
****
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
---
Nd+++ gl R4N.X 25°C 0.10M C K1=9.18 1988CCb (94573)1254
****
C16H27N5O8 H3L (6621)
1,4,7-Tris(carboxymethyl)-1,4,7,10,13-pentaazacyclopentadecan-9,14-dione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ sp KCl 25°C 0.08M U K1=11.1 1994FCa (94674)1255
****
C16H27N5O8 H3L (6915)
4,10,13-Tris(carboxymethyl)-1,4,7,10,13-pentaazacyclopentadeca-8,15-dione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ sp KCl 25°C 0.08M U K1=15.0 1994FCa (94688)1256
****
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
---
Nd+++ gl KNO3 20°C 0.10M U K1=12.09 1969NDc (94717)1257
****
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
---
Nd+++ vlt KNO3 20°C 0.10M U K1=15.38 1969NDc (94743)1258
****
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
---
Nd+++ vlt KNO3 20°C 0.10M U K1=17.65 1979MBd (94769)1259
****
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
---
Nd+++ gl NaCl 37°C 1.0M C K1=22.5 1994TBb (94920)1260
Method: Competitive reaction with Ce3+ ion.
****
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
---
Nd+++ gl R4N.X 25°C 0.10M U K1=12.21 1983CRb (95048)1261
****
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
---
Nd+++ cal non-aq 25°C 100% C H K1=11.65 1990NRa (95262)1262
Medium: MeCN. DH(K1)=-25.6 kJ mol-1, DS=-32.4 J K-1 mol-1. In PC: K1=18.73 DH(K1)=-25.0, DS=1.9

Nd+++ sp non-aq 25°C 100% U K1=3.01 1983PSc (95263)1263
Medium: DMSO
****
C16H32O7 L (6411)
15-(2,5-Dioxahexyl)-15-methyl-1,4,7,10,13-pentaoxacyclohexadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ cal non-aq 25°C 100% U H K1=3.04 1993LLa (95390)1264
Medium: MeCN. DH(K1)=-10.4 kJ mol-1.
****
C16H35O2P HL CAS 13525-99-0 (2135)
Di(2-ethylhexyl)phosphinic acid; (2-C2H5C6H12)2P(O)OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ kin oth/un 25°C 0.02M U K1=4.28 1974GMc (95503)1265
****
C16H35O4P HL CAS 3115-39-7 (2131)
Dioctylphosphoric acid; (C8H17O)2P(O)OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ kin oth/un 25°C 0.02M U K1=4.57 1974GMc (95519)1266
****
C17H12NO3Cl HL (6197)
8-Formyl-7-hydroxy-4-methyl-2H-[1]-benzopyran-2-one-4-chloroanil;
Cl.C6H4.N:CH.C9H3O(OH)(CH3)(:O)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 30°C 70% U K1=4.96 B2=8.81 1987ECa (95692)1267
B3=11.57
****
C17H12N2O5 HL (6198)
8-Formyl-7-hydroxy-4-methyl-2H-[1]-benzopyran-2-one-4-nitroanil;
NO2.C6H4.N:CH.C9H3O(OH)(CH3)(:O)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 30°C 70% U K1=4.81 B2=8.49 1987ECa (95709)1268
B3=11.22
****
C17H13NO3 HL CAS 98399-88-3 (6195)
8-Formyl-7-hydroxy-4-methyl-2H-[1]-benzopyran-2-one-anil;
C6H5.N:CH.C9H3O(CH3)(OH)(:O)

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

Nd+++ gl diox/w 30°C 70% U K1=5.46 B2=9.55 1987ECa (95740)1269
B3=13.22
****
C17H13N4O3 HL (5927)
1-Phenyl-3-methyl-4-(2'-carboxyphenylhydrazo)-5-pyrazolone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 30°C 75% M K1=15.75 B2=28.42 1987ESa (95770)1270
****
C17H14N2O2 L CAS 4551-69-3 (698)
4-Benzoyl-3-methyl-1-phenyl-2-pyrazolin-5-one;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaNO3 20°C 0.10M U M 1981GCa (95894)1271
B(Nd+3L+3TBP)=25.18
B(Nd+3L+4TBPoxide)=31.3

Nd+++ dis non-aq 25°C 100% U M 1973TEc (95895)1272
K(NdA2+3L)=2.63
K(NaB2+3L)=8.10
Medium: CHCl3. A=tributylphosphate, B=piperidine
****
C17H15N4O2 L CAS 97671-53-9 (5926)
1-Phenyl-3-methyl-4-(2'-methoxyphenylhydrazo)-5-pyrazolone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 30°C 75% M K1=8.45 B2=15.57 1987ESa (96011)1273
****
C17H16N2O3S2 L CAS 127335-83-5 (6849)
Sulfafurazole thiophene-2-aldehyde Schiff base; C4H3S.CH:N.C6H4.SO2.NH.C4HO(CH3)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl oth/un 25°C 0.10M U T K1=5.14 1990TSa (96041)1274
30 C: K=5.00, 35 C: K=4.90
****
C17H16O4 H2L CAS 29976-84-9 (8523)
1-(2-Hydroxy-5-methylphenyl)-3-(4-methoxyphenyl)-1,3-propanedione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 30°C 70% U 1996SNa (96126)1275
K(Nd+HL)=8.10
K(NdHL+HL)=6.50
Medium: 70% v/v dioxane/H2O, 1.0 M NaClO4.
****
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
---
Nd+++ gl alc/w 30°C 75% U M B2=13.22 1991GDd (96156)1276
Medium: 75% v/v EtOH/H2O, 0.1 M NaClO4. K(Nd(Acetylacetone)+L)=11.19

Nd+++ gl alc/w 30°C 75% U T H K1=7.34 B2=13.88 1987DGd (96157)1277
20 C:K1=7.28, K2=6.38; 40 C:K1=7.48, K2=6.90; 50 C:K1=7.83, K2=7.10
DH(K1)=-31 kJ mol-1, DS=42 J K-1 mol-1
****
C17H20N3O3F HL (7845)
1-Ethyl-6-fluoro-7-(4-methylpyperazine-1-yl)-4-oxo-1,4-dihydroquinoline-3-carboxyli
c acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl alc/w 22°C 0.1M U K1=5.95 B2=11.28 2000TBb (96288)1278
K3=3.95
Medium: 0.1 M NaClO4 in 70% v/v EtOH/H2O
****
C17H23N4O4BrS H2L (1594)
2-(5-Bromo-2-pyridylazo)-5-(N-propyl-3-sulfopropylamino)phenol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ sp NaNO3 25°C 0.10M C K1=8.33 1988OHa (96423)1279
K(Nd+HL)=2.74
****
C17H27NO4 L CAS 71089-11-7 (7945)
13-Phenylmethyl-1,4,7,10-tetraoxa-13-azacyclopentadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ cal non-aq 25°C 100% C H 1993LLb (96536)1280
K(NdNO3+L)=3.99
Medium: acetonitrile. DH(NdNO3+L)=-46.69 kJ mol-1.
****
C17H29N3O10 H4L CAS 89378-46-1 (5528)
(Bis(3-(bis(carboxymethyl)amino)propyl)methylammonio)ethanoate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl KNO3 25°C 0.10M U K1=8.43 1984TPa (96575)1281
K(Nd+HL)=5.50
****
C17H38O6P2 L CAS 6997-56-4 (5225)
Tetrabutylmethylenediphosphonate; (C4H9O)2.PO.CH2.P(:O)(C4H9O)2

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      sp  non-aq 20°C 100%  U                      1969SSh (96818)1282
                                      K(NdCl3+L)=1.68
                                      K(NdCl3+3L)=3.20
Medium: n-butanol
*************************************************************************
C18H15NO3              HL                        (6196)
8-Formyl-7-hydroxy-4-methyl-2H-[1]-benzopyran-2-one 4-methylanil;
CH3.C6H4.N:CH.C9H3O(OH)(CH3)(O)
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  diox/w 30°C  70%  U        K1=6.33   B2=11.72  1987ECa (96996)1283
                                      B3=15.68
*************************************************************************
C18H15OP                L                      CAS 791-28-6  (32)
Triphenylphosphine oxide; (C6H5)3PO
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      sp  non-aq   ?  100%  U                      1972SSh (97100)1284
                                      K(NdCl3+L)=2.43
                                      K(NdCl3+2L)=4.17
                                      K(NdCl3+3L)=5.79
Medium: n-butanol
*************************************************************************
C18H16N2O3             HL                         (5560)
2-(2-Acetylphenylhydrazone)-1-phenyl-but-1,3-dione;
C6H5.CO.C(CO.CH3):N.NH.C6H4.COCH3
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      gl  diox/w 30°C  75%  U        K1=10.37  B2=19.12  1988ESb (97176)1285
*************************************************************************
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
-------------------------------------------------------------------------
Nd+++      nmr KCl    25°C  1.0M C   H    K1=2.54        2004BRa (97269)1286
Method: 1H nmr measurements in D2O. DH(K1)=-13 kJ mol-1,
DS(K1)=5 J mol-1K-1
*************************************************************************
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
-------------------------------------------------------------------------
Nd+++      EMF KNO3   25°C 0.10M C T H    K1=17.95       1985HWb (97437)1287
```

K(NdL+H)=7.37
Method: Hg (and glass) electrode, using Hg(II) as competitive indicator ion. Data for 10-35 C. DH(K1)=-62.7 kJ mol-1, DS(K1)=133 J K-1 mol-1.
****
C18H22N4O4 H2L CAS 2444-14-6 (3502)
N,N'-Bis(2-pyridylmethyl)diaminoethane-N,N'-diethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaCl 25°C 0.16M C K1=11.99 1997CMa (97548)1288
K(Nd+L=NdL(OH)+H)=1.45
K(NdL(OH)+H)=10.45
****
C18H24N6O9 H3L BAMTPH CAS 87834-24-0 (5915)
N,N',N"-Tris(3-(hydroxyamino)-3-oxopropyl)-1,3,5-benzenetricarboxamide; C6H3(CONHCH2CH2CONHOH)3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaNO3 25°C 0.10M U K1=16.7 1991JHa (97622)1289
****
C18H25N3O8 H4L BEATA CAS 87732-99-8 (5600)
N,N-Bis(2-aminoethyl)aniline-N',N',N'',N''-tetraethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl KNO3 25°C 0.10M C K1=15.10 1985TPa (97657)1290
****
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
---
Nd+++ gl non-aq 25°C 100% U K1=3.75 1982MDa (97809)1291
Medium: propylene carbonate
****
C18H29NO4 L CAS 207603-17-6 (9000)
7-(Phenylmethyl)-1,4,10,13-tetraoxa-7-azacyclohexadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ cal non-aq 25°C 100% C H K1=2.48 1998LBc (97879)1292
Medium: acetonitrile. DH(K1)=-60.25 kJ mol-1, DS(K1)=-154.7 J K-1 mol-1.
****
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
---
Nd+++ gl R4N.X 25°C 0.10M C K1=9.04 1988CCb (97913)1293

****

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
Nd+++	EMF	KNO3	25°C	0.10M	C	T H	K1=22.90 K(NdL+H)=3.94 K(NdHL+H)=2.93	1987HCa (98072)	1294

Method: Hg electrode; competitive reaction with Hg(II).
Data for 15-35 C. At 25 C, DH(K1)=-124 kJ mol-1, DS(K1)=21.0 J K-1 mol-1.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	vlt	R4N.X	30°C	0.01M	C		K1=19.50	1981GMh (98073)	1295

Method: polarography, using Cd as indicator ion. Medium: 0.01 M Et4NBr.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	vlt	NaClO4	25°C	0.40M	C		K1=23.68	1978MNb (98074)	1296

Medium: 0.40 M NaClO4, pH 4.80. Method: polarography, using Cd as indicator ion.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	EMF	KNO3	25°C	0.10M	U		K1=22.82	1970HAa (98075)	1297

By ion-selective electrode (Hg): K1=22.82
By glass electrode: K(NdL+H)=3.93, B(Nd2L)=3.93, K(Nd2L+2OH)=11.5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	KNO3	25°C	0.10M	U		K1=16.6 K(NdL+H)=3.94 K(NdHL+H)=2.93 B(Nd2L)=20.3	1969YMa (98076)	1298

****

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
Nd+++	gl	NaNO3	25°C	0.20M	C		K1=13.76	1991KKa (98217)	1299
Nd+++	EMF	NaCl	80°C	1.00M	C		K1=14.51 K(NdL+H)=4.56	1986LDb (98218)	1300

****

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
Nd+++	gl	R4N.X	25°C	0.10M	C		K1=7.40	1988CCc (98341)	1301

****

C18H34N4O9 H3L DO3A-B (7301)
10-[2,3-Dihydroxy-(1-hydroxymethyl)-propyl]-1,4,7,10-tetraazacyclododecane-1,4,7-triethanoic ac.;

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

---
Nd+++ gl NaCl 25°C 0.10M C I K1=18.3 1996TKa (98383)1302
In 0.1 M Me4NCl K=20.1
****
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
---
Nd+++ cal non-aq 25°C 100% C H K1=14.74 2003DCa (98683)1303
Method: competitive titration calorimetry of AgL+. Medium: acetonitrile.
DH(K1)=-117.2 kJ mol-1, DS(K1)=-111 J K-1 mol-1.

Nd+++ oth non-aq 25°C 100% C H K1=11.06 1990NRa (98684)1304
Medium: MeCN. DH(K1)=24.9 kJ mol-1, DS=-32.4 J K-1 mol-1. In PC: K1=15.99,
DH(K1)=-25.1, DS=-10.8

Nd+++ gl alc/w 25°C 100% C K1=9.86 1983ANb (98685)1305
The equilibration took 7-12 days. Medium: MeOH, 0.05 M Et4NClO4

Nd+++ sp non-aq 25°C 100% U K1=3.26 1983PSc (98686)1306
Medium: DMSO
****
C18H39N3O3 L CAS 490025-64-4 (8902)
1,3,5-Tris(butylamino)-1,3,5-trideoxy-cis-inositol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl KCl 25°C 0.1M C 2002DGc (98881)1307
B(Nd3H-6L3)=-27.0
****
C18H40N2O10P2 H2L (7241)
1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diyldimethylenediphosphonic acid
bis(Et-ester);

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl R4N.X 25°C 0.10M U K1=7.74 1996BJa (98896)1308
Medium: 0.1 M Me4NCl
****
C19H14O7S H4L Pyrocatechol Vi CAS 369596-29-2 (709)
Pyrocatechol Violet,
3-[3,4-Dihydroxyphenyl-3-hydroxy-4-oxo-2,5-cyclohexadien-1-ylidenemethyl-b.;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaClO4 30°C 0.20M U M K1=8.90 1978MSk (99111)1309
K(Nd(nta)+L)=6.60
****
C19H16N4O L LAMI (5930)

2-(2'-Lepidylazo)-N-methylisatin

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	diox/w	30°C	75%	M	I	K1=9.67	B2=18.94	1987DGc	(99166)1310

Medium: 75% v/v dioxan/H2O, 0.15 M NaClO4

****

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
Nd+++	gl	NaClO4	30°C	0.10M	U	M	K1=11.1	B2=20.55	1987SOa	(99572)1311
							K(NdA+L)=9.57			
							K(NdB+L)=8.21			

H2A=hydroxyethyliminodiethanoic acid, H3B=nitrilotriethanoic acid

****

C20H14N2O5S H3L Solochrome 6B CAS 3564-14-5 (3507)
1-(1-Hydroxy-2-naphthylazo)-2-naphthol-4-sulfonic acid, Mordant Black3, Eriochrome blue-black B;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	alc/w	30°C	50%	C	M	K1=11.11	B2=20.68	1994SOa	(99658)1312
							K(NdA+L)=9.65			
							K(Nd(nta)+L)=8.81			

Medium: 50% v/v MeOH/H2O, 0.10 M NaClO4.
H2A is hydroxyethyliminodiethanoic acid.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	NaClO4	30°C	0.10M	U	T H	K1=12.47	1991NNb	(99659)1313

Also data for 40 and 50 C. DH and DS values.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	sp	oth/un	?	?	U		K1=5.16	1972CBc	(99660)1314

****

C20H14N2O5S H3L EriochrBluBlk R CAS 2538-85-4 (3508)
3-Hydroxy-4-(2-hydroxy-1-naphthylazo)naphthalene-1-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Nd+++	gl	diox/w	30°C	50%	U		K1=10.49		1976NNa	(99696)1315
Nd+++	sp	alc/w	?	98%	U				1968RAa	(99697)1316
							K(?)=5.2			

****

C20H14N2O11S3 H5L Chromotrope 8B CAS 5850-64-6 (2674)
3-(4'-Sulfonaphthylazo)chromotropic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	sp	NaClO4	25°C	0.10M	C		K1=5.73	1979PLb	(99713)1317

****

C20H14N2O11S3 H2L Hydroxynaphthol CAS 63451-35-4 (2835)
Hydroxynaphthol blue, 1-(2-Hydroxy-4-sulfo-1-naphthylazo)-2-naphthol-3,

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	sp	none	25°C	0.0	U			1978BRb	(99733)1318
							K1eff=4.13		

Keff at pH 10

****

C20H18N4O2 HL (5917)
Pyruvic monohydrazone-3-hydrazino-4-benzyl-6-phenylpyridazine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	diox/w	30°C	75%	U			1985RSb	(99838)1319
							K(Nd+HL)=4.96		
							K(Nd+2HL)=10.68		

****

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
Nd+++	gl	KNO3	20°C	0.10M	U		K1=18.32	1985SNb	(100012)1320
							K(NdL+H)=5.61		
							K(NdHL+H)=5.16		

****

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
Nd+++	cal	non-aq	25°C	100%	C	H	K1=3.82	1998LHa	(100205)1321

Medium: acetonitrile. DH(K1)=11.55 kJ mol-1.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	oth/un	25°C	0.0	U	H	K1=2.96	1991HJa	(100206)1322

****

C20H24O12S2 H2L CAS 172985-47-6 (7820)
2,3:11,12-Dibenzo-1,4,7,10,13,16-hexaoxacyclooctadeca-2,11-diene-4',4"-disulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	dis	R4N.X	25°C	0.12M	C		K1=1.88	1998SUa	(100283)1323

Medium: 0.12 M Et4NBr.
Method:solvent extraction into cyclohexane/di(2-ethylhexyl)phosphoric acid

****

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
--------------------------------------------------------------------------------
Nd+++      gl  NaNO3  25°C 0.20M C        K1=14.85       1991KKa (100543)1324
********************************************************************************
C20H35N5O10          H3L                       (6623)
1,4,7-Tris(carboxymethyl)-13,16-dioxa-1,4,7,10,19-pentaazacycloheneicosa-9,20-dione
;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      sp  KCl    25°C 0.08M U        K1=17.0        1994FCa (100561)1325
********************************************************************************
C20H37N5O10          H3L    MEA              CAS 129009-83-2  (7322)
N,N'-Bis(2-methoxyethylcarbamoylmethyl)diethylenetriamine;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaClO4 25°C 0.10M C   H    K1=15.66       1997ICa (100737)1326
DH(K1)=-22.7 kJ mol-1, DS=224
********************************************************************************
C20H43O4P             HL                       CAS 7785-87-1  (2132)
Didecylphosphoric acid; (C10H21O)2P(O)OH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      kin oth/un 25°C 0.02M U        K1=3.79        1974GMc (100910)1327
********************************************************************************
C21H14O3              HL                       CAS 26073-81-4  (5306)
6,7-Dihydroxy-2,4-diphenylbenzopyranol,
6-hydroxy-2,4-diphenyl-7H-1-Benzopyran-7-one;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      sp  oth/un   ?     ?  U                        1969PSf (101037)1328
                                          K(NdOH+L)=9.31
********************************************************************************
C21H17N2O5As          H2L    ArsenoBDMPH        (5931)
2-Arsonodibenzoylmethanephenylhydrazone; C6H5.CO.C(CO.C6H5):N.NH.C6H4.AsO3H2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  alc/w  27°C  40%  U        K1=14.84  B2=19.21  1990MOc (101081)1329
Medium: 40% v/v EtOH/H2O, 0.1 M NaClO4
********************************************************************************
C21H17N5               L                        (7365)
2,6-Bis(1-methylbenzimidazol-2-yl)pyridine
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
```

Nd+++ sp non-aq 20°C 100% U K1=8.7 B2=15.90 1997PBa (101091)1330
K3=7.3
Medium: CH3CN
****
C22H14O9 H5L CAS 4431-00-9 (3513)
Aurintricarboxylic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ sp oth/un 25°C ? U 1967SAa (101504)1331
K(Nd+HL)=4.4(?)
****
C22H17AsN4O14S3 H6L Arsenazo M CAS 3563-69-7 (623)
2-(2-Arsonophenylazo)-7-(3-sulfophenylazo)-1,8-dihydroxynaphthalene-3,6-disulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ sp oth/un ? ? U K1=13.86 1971SSi (101549)1332
****
C22H17N4O14ClP2S2 H8L ClPhosphonazo 3 CAS 1914-99-4 (2577)
2,7-Bis((4-chloro-2-phosphophenyl)azo)chromotropic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ sp NaClO4 25°C 1.00M U K1=9.28 1977MNa (101580)1333
****
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
---
Nd+++ sp oth/un rt 0.10M C 2004LLa (101637)1334
K1eff=4.00
B2eff=9.46
B(2,2)eff=13.33
Method: spectral deconvolution. Medium: 0.1 M chloroacetate buffer, pH 3.5

Nd+++ sp oth/un 25°C var U I 1997HRb (101638)1335
K1(eff)=7.656
B(NdLCl)eff=8.178
B(NdL2Cl)eff=13.883
Conditional constants in chloride medium at pH 3.3. Also data in sulfate and perchlorate media. K(Nd+Cl)=2.191

Nd+++ sp NaClO4 25°C 0.10M U 1975NMa (101639)1336
K(Nd+H5L)=7.79

Nd+++ sp oth/un 20°C ? U 1972SSi (101640)1337
K(Nd+H4L)=15.43

****
C22H19N3O4S HL CAS 84819-63-6 (8347)
N-(3,4-DiMe-5-isoxazolyl)-4-[[(2-hydroxy-1-naphthalenyl)methylene]amino]benzenesulfonamide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaClO4 25°C 0.10M U K1=6.87 B2=11.67 1982MBa (101688)1338
****
C22H24N2O10 H4L CAS 132796-79-3 (8113)
1,2-Bis(2-aminophenoxy)ethane-N,N,N',N'-tetraethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ EMF KNO3 25°C 0.10M C T H K1=10.88 1990HLa (101901)1339
K(NdL+H)=3.52
Method: Competitive reaction with Hg++, using Hg indicator electrode.
Data for 15-35 C. DH(K1)=-33.3 kJ mol-1, DS(K1)=96.7 J K-1 mol-1.
****
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
---
Nd+++ gl R4N.X 25°C 0.10M C K1=11.01 1993YTa (101982)1340
****
C22H28O13S2 H2L DSDB21C7 CAS 204931-02-2 (7821)
2,3:11,12-Dibenzo-1,4,7,10,13,16,19-heptaoxacycloheneicosa-2,11-diene-4',4"-disulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ dis R4N.X 25°C 0.12M C K1=2.14 1998SUa (102079)1341
Medium: 0.12 M Et4NBr.
Method:solvent extraction into cyclohexane/di(2-ethylhexyl)phosphoric acid
****
C22H30N4 L CAS 250790-21-7 (7943)
N,N'-Bis(1,1-dimethylethyl)-1,10-phenanthroline-2,9-dimethanamine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaClO4 25°C 0.10M U K1=8.08 2001WZa (102116)1342
B(NdHL)=15.04
Also data for the N,N'-diethyl, isopropyl, butyl and isobutyl derivatives.
****
C22H37N5O14 H7L CAS 3234-59-1 (2425)
Tetraethylenepentaminehheptaethanoic acid;

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

---
Nd+++ vlt R4N.X 30°C 0.01M C K1=20.16 1981GMh (102337)1343
Method: polarography, using Cd as indicator ion. Medium: 0.01 M Et4NBr.

Nd+++ gl KNO3 25°C 0.10M U K1=20.18 1968MIc (102338)1344
K(Nd+HL)=14.10
B(NdH-1L)=5.34
****
C22H40N4O8 H4L CAS 138763-18-5 (8607)
5,7,12,14-Tetramethyl-1,4,8,11-tetraazacyclotetradecane-N,N',N",N'"-tetraethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl KNO3 40°C 0.50M U T K1=18.21 1995BIa (102358)1345
K(NdL+H)=3.84
Also data for 80 C.
****
C22H41N5O10 H3L MMEA CAS 192631-00-8 (7323)
N,N'-Bis(methyl-2-methoxyethylcarbamoylmethyl)diethylenetriamine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaClO4 25°C 0.10M C H K1=17.38 1997ICa (102395)1346
DH(K1)=-30.7 kJ mol-1, DS=230
****
C23H18N2O3 HL (5561)
2-(2-Acetylphenylhydrazone)-1,3-diphenyl-prop-1,3-dione;
C6H5.CO.C(CO.C6H5):N.NH.C6H4.COCH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 30°C 75% U K1=10.43 B2=18.71 1988ESb (102599)1347
****
C23H18O9S H4L Eriochrome cyan CAS 3564-18-9 (433)
4'-Hydroxy-3,3'-dimethyl-2''-sulfofuchsone-5,5'-dicarboxylic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ sp oth/un 25°C ? U B2=9.6 1968MDc (102633)1348
****
C24H16O16S8 H8L CAS 237770-97-7 (8854)
25,26,27,28-Tetrahydroxy-2,8,14,20-tetrathiacalix[4]arene-5,11,17,23-tetrasulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ cal oth/un 25°C 0.01M C H K1=3.40 2004LWa (102869)1349
Medium: 0.01 M HCl. DH(K1)=6.8 kJ mol-1, DS(K1)=87.9 J K-1 mol-1.
****

C24H29N3O12S3 H6L (7355)
1,2,3-Tris((2-hydroxy-5-sulfobenzyl)amino)propane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaCl 25°C 0.16M C K1=13.59 1998LCa (103020)1350
K(NdL+H)=6.54
****
C24H32O14S2 H2L CAS 204931-03-3 (7822)
2,3:11,12-Dibenzo-1,4,7,10,13,16,19,22-octaoxacyclotetracosa-2,14-diene-4',4"-disul
fonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ dis R4N.X 25°C 0.12M C K1=2.20 1998SUa (103195)1351
Medium: 0.12 M Et4NBr.
Method:solvent extraction into cyclohexane/di(2-ethylhexyl)phosphoric acid
****
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
---
Nd+++ gl NaNO3 25°C 0.20M C K1=20.36 1991KKa (103382)1352
K(Nd+H2L)=16.21
****
C24H45N5O12 H3L HEMEA CAS 185214-83-9 (7324)
N,N'-Bis(2-hydroxyethyl-2-methoxyethylcarbamoylmethyl)diethylenetriamine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl NaClO4 25°C 0.10M C H K1=17.49 1997ICa (103446)1353
DH(K1)=-30.6 kJ mol-1, DS=232
****
C24H51N3O3 L CAS 490025-65-5 (8903)
1,3,5-Trideoxy-1,3,5-tris(hexylamino)-cis-inositol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl alc/w 25°C 75% C 2002DGc (103535)1354
B(Nd3H-6L3)=-15.9
Medium: 75% v/v MeOH/H2O, 0.10 M KCl.
****
C25H22O2P2 L CAS 207-21-8 (2099)
Methylenebis(diphenylphosphine oxide); Ph2P(O)CH2P(O)Ph2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ sp non-aq 20°C 100% U 1969SSi (103639)1355
K(NdCl3+L)=3.01

K(NdCl3+2L)=4.53
K(NdCl3+3L)=5.76
Medium: 1-butanol
****
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
Nd+++	gl	KNO3	25°C	0.5M	C		K1=5.11	1993YNa	(103732)1356

****
C26H23N5O2 HL (5918)
Hippuric monohydrazone-3-hydrazino-4-benzyl-6-phenylpyridazine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	diox/w	30°C	75%	U		K1=11.42 B2=22.05	1985RSb	(103885)1357

****
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
Nd+++	gl	R4N.X	25°C	0.10M	C		K1=12.69	1993YTa	(103968)1358

****
C26H33N3O12S3 H6L (7354)
1,1,1-Tris(((2-hydroxy-5-sulfobenzyl)amino)methyl)ethane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	NaCl	25°C	0.16M	C		K1=11.19	1998LCa	(104067)1359

****
C27H24N4O L BAHP (1023)
Benzoylacetone-monohydrazone-3-hydrazino-4-benzyl-6-phenylpyridazine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	diox/w	30°C	75%	U		K1=7.82	1983RSa	(104388)1360

****
C27H29NO11 L Adriamycin CAS 25316-40-9 (2407)
Doxorubicin;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	sp	oth/un	25°C	0.02M	U T H		K1=4.48	1985LSa	(104460)1361

Medium: 0.02M pH 7.6 buffer
****
C27H33N3O3 L CAS 332079-04-6 (8904)
1,3,5-Tris(benzylamino)-1,3,5-trideoxy-cis-inositol;

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  alc/w  25°C  75%  C                        2002DGc (104535)1362
                                          B(Nd3H-6L3)=-13.9
Medium: 75% v/v MeOH/H2O, 0.10 M KCl.
********************************************************************************
C27H36N4O12S3         H6L                        (7353)
Tris(((2-hydroxy-5-sulfobenzyl)amino)ethyl)amine;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  NaCl   25°C 0.16M C   H    K1=6.41   B2=12.75  1995CHa (104567)1363
By calorimetry: DH(K1)=-20.34 kJ mol-1, DS(K1)=54 J K-1 mol-1; DH(K2)=
6.63, DS(K2)=143.
********************************************************************************
C28H24O16S4           H8L                      CAS 206559-10-6  (7767)
25,26,27,28-Tetrahydroxycalix[4]arene-5,11,17,23-tetrasulfonic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      cal oth/un 25°C 0.10M C   H                   2001BIa (104701)1364
                                          K(Nd+H4L)=4.08
Medium: 0.10 m Na4H4L, pH=2. DH(Nd+H4L)=9.5 kJ mol-1.
********************************************************************************
C28H36N2O14S2           L                      CAS 84162-07-2  (7948)
15,15'-Dithiobis[2,3,5,6,8,9,11,12-octahydro-16-nitro-1,4,7,10,13-benzopentaoxacycl
opentadecin]
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      sp  non-aq 25°C 100%  C T H                   1997LQa (104791)1365
                                          K(NdNO3+L)=3.52
Medium: acetonitrile. Data for 20-35 C. DH(NdNO3+L)=36.73 kJ mol-1.
********************************************************************************
C28H40N4O4            H2L                      CAS 138110-63-1  (8608)
7,14-Dimethyl-5,12-diphenyl-1,4,8,11-tetraazacyclotetradecane-1,8-diethanoic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  KCl    40°C 0.50M M        K1=8.64        1997BZa (104826)1366
********************************************************************************
C28H40O6                L                      CAS 29471-17-8  (1262)
2,3:11,12-Bis(4'-tert-butylbenzo)-1,4,7,10,13,16-hexaoxacyclooctadecane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Nd+++      gl  non-aq 25°C 100%  U        K1=4.58        1980MDb (104847)1367
                                          Medium: Propylene carbonate.
Medium: propylene carbonate
```

****
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
---
Nd+++ ISE non-aq 25°C 100% U K1=4.10 1982MDa (104899)1368
Medium: propylene carbonate
****
C31H24N4O HL CAS 88700-85-0 (1409)
1,2-Diphenyl-1,2-ethanedione-3-(4-benzyl-6-phenyl)-pyridazinyl hydrazone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ gl diox/w 30°C 75% U I K1=8.73 1983RRa (105407)1369
In 75% MeOH: K1=7.31; 75% DMF: 5.91
****
C31H32N2O13S H6L Xylenol orange CAS 63721-85-5 (432)
5,5'-Bis-N,N-bis(carboxymethyl)aminomethyl-4'-hydroxy-3,3'-dimethylfuchsone-2"-sulf
onic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ sp oth/un 25°C 0.10M U 1967SSn (105483)1370
K(Nd+H2L)=6.8

Nd+++ sp oth/un 25°C ? U 1962TOa (105484)1371
K(?)=6.0
Acetate buffer
****
C32H34N4O2 L CAS 163892-66-8 (7329)
1-Phenyl-1,1-di(2,3-dimethyl-1-phenyl-3-pyrazolyl-5-one)butane;C6H5C(C3H7)((C2N2(O)
(CH3)2(C6H5))2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ sp diox/w 25°C 100% C 1997KMa (105634)1372
K(La(NO3)3+L)=4.01
Medium:100% Dioxane. K[Ln(NO3)3+L=Ln(NO3)3L]
****
C33H45N7O3 L CAS 345349-93-1 (9178)
Tris[6-((2-N,N-diethylcarbamoyl)pyridyl)methyl]amine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Nd+++ nmr KCl 25°C 1.0M C H K1=1.92 2004BRa (105972)1373
Method: 1H nmr measurements in D2O. DH(K1)=21 kJ mol-1
DS(K1)=107 J mol-1K-1
****
C36H32O24S4 H8L CAS 171798-10-0 (9139)

25,26,27,28-Tetrakis(hydroxycarbonylmethoxy)calix[4]arene-5,11,17,23-tetrasulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	cal	oth/un	25°C	0.01M	C	H	K1=4.09	2004LWa	(106229)1374

Medium: 0.01 M HCl. DH(K1)=4.0 kJ mol-1, DS(K1)=91.9 J K-1 mol-1.

****

C36H54O12 L (6732)
1,8-Dioxooctamethylenebis(4'-2,3-benzo-1,4,7,10,13-pentaoxacyclopentadecane);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	dis	non-aq	25°C	100%	U		B(Nd+3P+2L)=8.94	1993INa	(106424)1375

By solvent extraction into dichloromethane. B is the extraction constant Nd(aq)+picrate(aq)+L(org)=NdL2P3(org).

****

C36H60O30 L a-Cyclodextrin CAS 10016-20-3 (6946)
alpha-Cyclodextrin, Cyclohexaamylose;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	NaCl	25°C	0.10M	U	I	K1=2.8	1999FBa	(106469)1376

In 0.1 M Me4NCl, K1=3.40.

****

C37H33N5O4 L (7366)
2,6-Bis(1-(3,5-dimethoxybenzyl)benzimidazol-2-yl)pyridine

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	non-aq	25°C	100%	C		K2=4.9 K3=3.2	1997PBa	(106551)1377

Medium: CH3CN; 0.1 M Et4NClO4

****

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
Nd+++	gl	NaClO4	30°C	0.10M	U		K(Nd+H3L)=4.16 K(Nd+H2L)=6.36 K(NdH2L+H)=4.95	1980NAb	(106614)1378

Also data for NdHnL(OH) species

****

C52H69NO7 L CAS 178626-47-6 (8569)
5,11,17,23-Tetra-t-butyl-25-(diethylcarbamoyl)methoxy-27-carboxymethoxy-26,28-dihydroxycalix[4]ar

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      sp  non-aq 25°C 100%  C        K1=7.91        2002BBc (107516)1379
Method: uv/vis spectroscopy. Medium: DMSO. Also data for the 25-methoxy-
ethyl(carbamoylmethoxy)- and 25-di-(n-hexyl-carbamoyl)methoxy- derivatives
*************************************************************************
C54H56N4               L                     CAS 273204-94-7  (9179)
1,4,8,11-Tetrakis(2-naphthalenylmethyl)-1,4,8,11-tetraazacyclotetradecane;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      sp  mixed  25°C  50%  C        B2=14.0        2004SCa (107533)1380
                                         B3=20.3
Method: fluorescence titration. Medium: 50% v/v CH3CN-CH2Cl2.
*************************************************************************
C62H94N2O4S2           L                       (8109)
5,11,17,23-Tetrakis(1,1-dimethylethyl)-25-27-bis[2-methylthio)ethoxy]...calix(4)are
ne;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      cal non-aq 25°C 100%  U   H    K1=4.59        2001NJa (107705)1381
Method: microcalorimetry. Medium:  MeCN.. DH(K1)=-179 kJ mol-1
*************************************************************************
C76H116N4O8            L                       (8156)
p-tert-Butylcalix(4)arene tetradiisopropylethanoamide;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      cal non-aq 25°C 100%  U   H    K1=3.86        2001NJa (107882)1382
Method: microcalorimetry. Medium:  MeCN.. DH(K1)=-91 kJ mol-1
*************************************************************************
Polymer               HL    Bleomycin          (2324)
Bleomycin A2, B2 etc.
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Nd+++      sp  oth/un 25°C    ?  U                        1980LPb (108092)1383
                                       K1eff=3.60 pH 6.8
Method: fluorescence
```

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EXPLANATORY NOTES

DATA Flags are :-

T Data at other TEMPERATURES
I Data with various BACKGROUNDS
H Data for THERMOCHEMICAL quantities
M Data for TERNARY Complexes

EVALUATION Flags are :-

T or IUP=T signifies EVALUATION RATING = Tentative by IUPAC

END