

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

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										

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 B3=2.9	1999IUa (2151)	6

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.

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										

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-----
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)

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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/H ₂ O; 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									
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 B(Nd(phen)Cl)=4.80 B(Nd(phen)Cl ₂)=7.68 B(Nd(phen)Cl ₃)=9.14	2002KNc (5280)	23
Medium: DMF, 0.20 M Et ₄ NClO ₄ . DH(K1)=13.2 kJ mol ⁻¹ , DH(Nd(phen)Cl)=2.5, DH(Nd(phen)Cl ₂)=13.4, DH(Nd(phen)Cl ₃)=24.									
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									
Nd+++	dis	NaCl	25°C	1.0M	C		K1=-0.06	1997HTb (5282)	25
Method: by solvent extraction from 1.0 M NaCl into CHCl ₃ , 0.1 M 1,1,1-trifluoro-4-(2-thienyl)-2,4-pentanedione.									
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 NdCl ₃ . Data for 40-300C. Extended D-H equation. At 100 C, K1=0.66, B2=0.13									
Nd+++	cal	non-aq	25°C	100%	U	H	K1=3.26 B2=5.27 K3=1.35 K4=0.63	1991ITa (5284)	27
Medium: DMF, 0.2 M Et ₄ NClO ₄ . 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									
Nd+++	sol	NaClO ₄	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 K3=3.69	B2=11.69 1977IMa	(5287)	30
Nd+++	sp	non-aq	25°C	100%	U	K1=0.5 to 1.2	1974KBb	(5288)	31
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	K(NdA+Cl)=1.0	1971DZa	(5291)	34
Medium: MeOH, 0.5 M LiClO4. HA=acetylacetone									
Nd+++	sp	alc/w	25°C	50%	U I	K1=0.49 Klin=-0.8	1971KBf	(5292)	35
Medium: 50% w/w MeOH/H2O, 3 M LiClO4. K1=-0.04(0%); K1=0.92, Klin=-0.1(100%)									
Nd+++	sp	alc/w	25°C	50%	U I	K1=0.50 Kin=-0.59	1971KBg	(5293)	36
Medium: 50% v/v EtOH/H2O, 3 M LiClO4. K1=0.92, Klin=-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 Klin=-2.9	1970KBe	(5295)	38
Nd+++	sol	KCl	25°C	var	U	K1out=-0.1	1968SYb	(5296)	39
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
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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 1970PLa (7650) 56

I03- 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

I04- 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 1974L0a (8611) 58

Kso(Nd(H2IO6)(H2O)3)=-10.82

Mo04-- 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, MnMo9032-----

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

Mo12042U----- 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
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Nd+++	vlt	KCl	25°C	1.0M	C T H		K1=3.87	1983KMc (9269)	62
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Method: polarography. Also data for 35 C. DH and DS values.
Medium pH 2.4.

NO3-		HL		Nitrate			CAS 7697-37-2	(288)	
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Nitrate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Nd+++	cal	NaClO4	25°C	2.0M	C IH		K1=-0.19	1998BMb (9797)	63
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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
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Method: By competition with xylitol.

Nd+++	cal	NaClO4	25°C	2.0M	C IH		K1=-0.19	1996BMc (9799)	65
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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
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Nd+++	sp	alc/w	25°C	0.64M	U TI		K1=1.79 B2=2.40	1990SBd (9801)	67
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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
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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
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Medium: PrOH, 1 M LiClO4. K1=0.5 to 0.9

Nd+++	sp	non-aq	0°C	100%	U		B5=7.48	1971PEi (9804)	70
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Medium:Me2CO

Nd+++	sp	KNO3	?	var	U			1970KSf (9805)	71
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K(Nd+3L+HL)=-1.67
K(NdL3HL+2HL)=-1.46

Nd+++	sp	NaClO4		4.0M	U		K1=0.06	1969BTe (9806)	72
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Nd+++	oth	oth/un	25°C	0.0	U		K1=1.2 K1out=0.8	1969GEc (9807)	73
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Method: ultrasonic absorption

Nd+++	dis	NaClO4	25°C	1.0M	U		K1=0.24	1969MKi (9808)	74
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Nd+++      sp  NaClO4  20°C  4.20M U      K1=-0.11      1966CKc  (9809)  75
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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
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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;
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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      *K1=-8.18
2000KBa  (11779)  83
In 0.7 M NaClO4, *K1=-8.49. DH(*K1)=41 kJ mol-1.
-----
Nd+++      gl  NaCl    25°C  0.10M U  I      *B(1,3)=-23.54
1999FBa  (11780)  84
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

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*B3, -24.9

Nd+++ gl NaNO3 25°C 2.0M C 1990LSc (11782) 86

*K1=-9.69

$$*B(2,2)=-15.69$$

Nd+++ gl NaCl04 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+++ g1 NaCl04 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 NaCl04 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
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$$*K1(NdA+H2O=NdAOH+H)=-7.35$$

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

$$K_{so}(\text{Nd}(\text{OH})_3(s) = \text{Nd} + 3\text{OH}) = -25.23$$

Nd+++ gl none 20°C 0.0 M 1967AKe (11789) 93

$$K_{SO} = -23.92$$

Nd+++	oth	oth/un	rt	10%	U	1967PBb	(11790)	94
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$K_{SO} = -27.1$

$$K(\text{NdL3(s)}=\text{NdL3})=-5.1$$

Medium: 10% sea water. Method: Tyndall scattering

Nd+++ gl NaCl04 25°C 0.30M U 1966FKa (11791) 95

*K1=-8.43

Nd+++	oth	oth/un	20°C	dil	U	19660Pa (11792)	96
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$$K_{SO} = -23.9$$

Nd+++ gl none 25°C 0.0 M 1963AKb (11793) 97

$$K_{SO} = -23.89$$

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: $K(\text{Nd}(\text{OH})_3(\text{s}) + 3\text{H} = \text{Nd} + 3\text{H}_2\text{O})$

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: $K(\text{Nd}(\text{OH})_3(\text{s}) = \text{Nd} + 3\text{OH})$; y=Kso for Y+++

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

Peroxide; -0.0-

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

Nd+++ gl NaNO3 25°C 0.10M C 2003MYd (12689) 103

$K(4\text{Nd} + 4\text{H}_2\text{O}_2 = \text{Nd}_4(\text{O}_2)_2(\text{O}_2\text{H})_2(\text{OH})_4 + 10\text{H}) = -46.2$,

$K(4\text{Nd} + 4\text{H}_2\text{O}_2 = \text{Nd}_4(\text{O}_2)_4(\text{OH})_4 + 12\text{H}) = -59.9$. Also spectrophotometric values.

P04--- 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

$K(\text{Nd}(\text{nta}) + \text{HL}) = 11.5$

$K(\text{Nd}(\text{edta}) + \text{HL}) = 5.1$

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+++ sp NaCl04 25°C 0.10M U K1=15.0 1967SSq (13638) 113

$$\Delta H(\text{Nd}+2\text{Hf})=-11 \text{ kJ mol}^{-1}; \Delta H(\text{B2})=-19$$

 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
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Nd+++	sp	oth/un	?		U		K1=1.22 B2=1.37	1969POa (14106)	120
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S-- H2L Sulfide CAS 7783-06-4 (705)
 Sulfide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Nd+++		oth none	25°C	0	U			1988LIa (14424)	121
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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
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Nd+++	dis	oth/un	25°C	1.0M	C		K1=0.43	1997HTb (15187)	122
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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	1992TIIa (15188)	123
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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
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Nd+++	dis	NaClO4	25°C	1.0M	U	T H T	K1=0.81 B2=0.92	1965CKb (15190)	125
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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
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S04-- H2L Sulfate CAS 7664-93-9 (15)
 Sulfate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Nd+++	sol	oth/un	25°C	0.66M	C		K1=1.93	2004SBb (16397)	127
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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
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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
Klin=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

S203-- 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

CH606P2 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 B2= 9.64 K(Nd+HL)=2.16	2001SBf (18985)	141
Medium: 0.05 M NH ₄ NO ₃ . 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	KNO ₃	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 B2=11.51 K3>1.96	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	NaClO ₄	25°C	0.10M	U	T H	K1=6.42 B2=11.62 K3=4.20	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	NaClO ₄	45°C	2.0M	C	T H	K1=2.05 B2= 3.40 B3=4.36	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/H ₂ 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	NaClO ₄	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	NaClO ₄	21°C	2.0M	U		K1=1.93 B2=2.94 B3=3.63 B4=3.42	1984BMa (20069)	150
Nd+++	sp	NaClO ₄	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	1996PJ a (20348)	162
Nd+++	gl	NaClO4	25°C	0.20M	U		K1=5.55	B2=10.82	1995PJ b (20349)	163
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=3.67 K(Pr(EDTA)+L)=3.63		1986LSb (20350)	164
Nd+++	gl	KNO3	30°C	0.10M	U	M			1980RT a (20351)	165
							K(Nd(CDTA)+L)=3.27			
Nd+++	gl	NaClO4	20°C	0.10M	U				1964PK a (20352)	166
							K(Nd+HL)=2.07 K(NdHL+HL)=1.20			
Nd+++	gl	NaClO4	25°C	2.0M	U				1962BC a (20353)	167
							K(Nd+HL)=1.49 K(NdHL+HL)=0.8			
Nd+++	gl	KCl	30°C	0.10M	U				1962CT a (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	1996PJ a (20585)	169
Nd+++	EMF	NaClO4	25°C	1.00M	U	M	K1=2.46 B(NdLA)=4.90	B2=4.54	1991WP b (20586)	170
H2A=maleic acid										
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=3.83 K(Nd(EDTA)+L)=3.64		1986LSb (20587)	171
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=3.87 K(Nd(edta)+L)=3.69		1985LSf (20588)	172
Nd+++	sp	NaClO4	21°C	2.00M	U		K1=2.41 B3=5.33 B4=6.25	B2=4.38	1981BM b (20589)	173
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	1977BM a (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 NaCl04 25°C 0.15M U T K1=3.26 1979HJa (21644) 191
B(NdHL)=10.43
B(NdH-1L)=-4.96

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

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

Nd+++ gl NaCl04 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 1968KRb (21648) 195
K(NdOH+L)=9.46

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)2S

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

Nd+++ sp non-aq 25°C 100% U 1992MBb (22116) 199
K8=2.0
K9=0.9
K10=0.6

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(P03H2)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.OP03H2

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

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 B3=3.80	1992CBa (23204)	204

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

Nd+++	cal	non-aq	?	100%	U		K1=10.1 B2=18.50 K3=6.4 K4=3.4	1968FMa (23205)	205
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Medium: CH3CN

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

1-Hydroxyethane-1,1-diphosphonic acid; CH3.C(OH)(P03H2)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
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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
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Additional method: nmr. Medium not stated.

Nd+++	gl	NaClO4	25°C	0.10M	C	H	K1=1.92 B2=3.66 B3=5.3	1996HBa (23992)	208
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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
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Nd+++	nmr	NaClO4	25°C	2.00M	U	H	K1=1.46	1980CCa (24060)	209
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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
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Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=4.50 K(Nd(EDTA)+L)=3.60	1986LSb (24510)	210
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Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=4.55 K(Nd(edta)+L)=3.66	1985LSf (24511)	211
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Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=4.50 K(Nd(edta)+L)=3.60	1984LSd (24512)	212
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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
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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.

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
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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 B(NdHL)=6.48 B(NdHL2)=9.44	1971DGa (24517)	217
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; HOO.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 B3=3.82 B4=3.52	1981BMc (25023)	223

 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-Mercaptopropionic 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 1996PJ a (25160) 227

 Nd+++ gl NaClO4 25°C 0.20M U K1=5.08 B2= 9.73 1995PJ b (25161) 228

 Nd+++ gl NaClO4 25°C 2.00M U 1968C Ma (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-Mercaptopropionic 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 1968C Ma (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-Hydroxypropionic 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

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	1996PJ a (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 B2=4.39 B3=5.44 B4=6.25	1981BMc (25490)	240
Nd+++	gl	NaClO4	25°C	0.5M	U		K1=2.595 B2= 4.36 B3=6.09	1981JP a (25491)	241
Additional method: polarimetry									
Nd+++	gl	NaClO4	25°C	0.20M	U		K1=2.65 B2=4.44 K3=0.93 K4=0.08	1964DV a (25492)	242
Nd+++	gl	NaClO4	20°C	0.10M	U		K1=2.87 B2=4.97 B3=6.4	1964PKb (25493)	243
Nd+++	gl	NaClO4	25°C	2.0M	U		K1=2.47 B2=4.37 K3=1.23	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
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Nd+++	gl	NaClO4	25°C	0.20M	U		K1=4.80	B2= 8.40	1996PJ a (26217)	246
Nd+++	gl	NaClO4	25°C	0.20M	U		K1=4.80	B2= 8.40	1995PJ b (26218)	247
Nd+++	gl	NaNO3	25°C	0.0	U		K1=5.16		1991AD b (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	1991DW b (26220)	249
B(NdH2L(Glu))=22.90										
Nd+++	gl	KNO3	25°C	0.20M	U	M	K1=6.48		1990LS b (26221)	250
K(Nd(phen)+L)=6.20										
Nd+++	gl	KNO3	35°C	0.10M	U		K1=5.11		1990RS e (26222)	251
Nd+++	gl	NaClO4	25°C	0.20M	U		K1=4.80	B2= 8.40	1987PP a (26223)	252
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=6.52		1986LS b (26224)	253
K(Nd(EDTA)+L)=5.17										
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=6.52		1985LS e (26225)	254
K(Nd(edta)+L)=5.17.										
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=6.52		1984LS d (26226)	255
K(Nd(edta)+L)=5.17										
Nd+++	sp	oth/un	?	?	U		K1=5.5		1970EM a (26227)	256
Nd+++	gl	KNO3	25°C	0.10M	U		K1=4.8		1967EM b (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		1986LS b (26468)	258
K(Nd(EDTA)+L)=4.72										
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=6.24		1984LS d (26469)	259
K(Nd(edta)+L)=4.72										
Nd+++	gl	KCl	30°C	0.10M	U	T	K1=3.04		1962CT a (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	1984ID a (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

C3H12N09P3 H6L NTPA CAS 6419-19-8 (2920)
 Nitritotris(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 K(Nd+HL)=5.24 K(Nd+2HL)=10.53	2002KAa (28579)	270

Nd+++	gl	KNO3	25°C	0.10M	C		K(NdL+H)=7.52 K(NdHL+H)=5.50	1991SKb (28580)	271
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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 DH(K1)=8.3 kJ mol-1, DS=81 J K-1 mol-1; DH(B2)=12.4, DS=122	19760Ca (28659)	272
Nd+++	gl	NaClO4	25°C	0.10M	C	H	K1=2.735 B2= 4.22 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.	19760Cb (28660)	273

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
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 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	NaCl04	30°C	0.10M	M		K1=2.42	1984SHb (29436)	287
Nd+++	gl	NaCl04	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	NaCl04	25°C	0.20M	U	M	K1=3.81 K(Nd(EDTA)+L)=3.46	1986LSb (29719)	290
Nd+++	gl	NaCl04	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	NaCl04	25°C	0.20M	U	M	K1=4.37 K(Nd(EDTA)+L)=3.87	1986LSb (30005)	292
Nd+++	gl	NaCl04	25°C	0.20M	U	M	K1=4.41 K(Nd(edta)+L)=3.93	1985LSf (30006)	293
Nd+++	gl	NaCl04	25°C	0.20M	U	M	K1=4.37 K(Nd(edta)+L)=3.87	1984LSd (30007)	294
Nd+++	gl	NaCl04	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	NaCl04	30°C	0.10M	M	M	K1=3.38	1976SJa (30009)	296
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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 NaCl04 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;
 H2A is phthalic, H2B is 5-sulfosalicylic, H2C is 3,5-di-N02-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 NaCl04 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 NaCl04 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 thiodipropenoic acid.

 Nd+++ gl NaCl04 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+++	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
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Nd+++	gl	KNO3	25°C	0.10M	M	M	K1=2.67 K(NdL+ida)=2.39 K(NdL+gly)=2.52 B(NdLA)=8.66 B(NdLB)=9.55	1989NDa (30903)	323
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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
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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
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Nd+++	sp	oth/un	25°C	0.0	U	T H	K1=4.66	1975YBa (31317)	327
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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 1996PJ a (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	NaCl04	25°C	0.20M	U	M	K1=6.70 B2=11.79 K(Nd(HEDTA)+L)=5.06 K(Nd(CDTA)+L)=4.47 K(Nd(DTPA)+L)=4.09	1988VSc (32307)	344
Nd+++	gl	NaCl04	25°C	0.20M	U	M	K1=6.70 B2=11.79 K(Nd(NTA)+L)=5.81 K(Nd(edta)+L)=4.37	1987VSb (32308)	345
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

$$K(\text{NdA}+\text{L})=3.68$$

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
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Nd+++	gl	alc/w	20°C	60%	U	I	K1=9.30		1968KRc (32319)	356
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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
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Nd+++	sp	oth/un	25°C	0.20M	U		K1=6.66	B2=11.04	1966KTa (32321)	358
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Nd+++	gl	KNO3	25°C	0.10M	U	M	K1=6.50	B2=11.39	1962THa (32322)	359
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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
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Nd+++	gl	diox/w	20°C	50%	U		K1=7.81	B2=14.65	1971MAf (32545)	360
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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
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Nd+++	gl	NaClO4	30°C	0.10M	U		K1=3.77	B2=6.38	1984YLa (32713)	361
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Nd+++	gl	NaClO4	30°C	0.2M	U		K1=4.26		1977MSf (32714)	362
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Nd+++	gl	NaClO4	25°C	0.10M	U		B2=7.87		1973TSc (32715)	363
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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
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Nd+++	gl	KCl	25°C	0.10M	U		K1=2.35		1973FMa (33038)	364
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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+++ g1 KCl 60°C 0.10M U K1=6.29 B2=10.30 1978NBa (33089) 365
B3=13.20

C4H8N2O4 H2L CAS 39156-77-9 (3008)
Hydrazine-N,N-diethanoic acid; H2N.N(CH2.COOH)2

Nd+++ gl KNO3 30°C 0.10M U M 1984AIa (33110) 367
K(Nd(EDTA)+L)=2.872

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+++ sp oth/un ? ? U K1=6.2 1957VIb (33240) 370

Nd+++ cal KCl 25°C 1.0M U K1=2.92 B2= 4.84 2003ASa (33339) 371
K3=1.19

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

C4H8O2S HL CAS 627-04-3 (3007)
S-Ethylthioethanoic acid; CH3.CH2.S.CH2.COOH

Nd+++ gl NaCl04 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	NaClO ₄	21°C	2.00M	U		K1=2.62 B3=5.93 B4=6.89	1981BMc (33491)	375
Nd+++	gl	NaClO ₄	25°C	0.20M	U		K1=2.74 K3=1.56 K4=0.6	1964DVa (33492)	376
Nd+++	gl	NaClO ₄	20°C	0.10M	U		K1=2.88 B3=6.30	1964PKb (33493)	377
Nd+++	gl	NaClO ₄	25°C	0.50M	U		K1=2.54	1964SPa (33494)	378
Nd+++	gl	NaClO ₄	25°C	2.0M	U		K1=2.62 K3=1.40	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	KNO ₃	25°C	0.10M	C		K1=2.96 K3=1.49	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	KNO ₃	25°C	0.10M	U		K1=3.01 K3=1.60	1976PKb (33707)	381
Nd+++	gl	NaClO ₄	25°C	0.50M	U		K1=2.81 B3=6.36	1964SPa (33708)	382

C₄H₉N₂O₂ 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	KNO ₃	25°C	0.10M	U T		K1=5.01	1978SSb (33920)	383

C₄H₉N₂O₃ 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
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 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;

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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-)
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Nd+++      EMF NaCl04 25°C  1.0M C          K1=2.77    B2= 4.78  1983KKb (36062) 393
                                   B3=6.27

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Method: Pt/quinhydrone electrode.

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*****
C5H4O2S          HL    2-Thenoic acid  CAS 527-72-0 (2312)
Thiophene-2-carboxylic acid; C4H3S.CO0H
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Nd+++      gl  NaCl04 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.CO0H
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Nd+++      gl  NaCl04 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.CO0H
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Nd+++      cal NaCl04 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)
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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

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Medium: propanol

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*****
C5H5NO2          HL                      CAS 16867-04-2 (2316)
2,3-Dihydroxypyridine, 3-Hydroxypyridin-2(1H)-one; C5H3N(OH)2
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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
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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
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Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=4.38 K(Nd(edta)+L)=4.13	1985LSf (37432)	404
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Nd+++	sol	oth/un	25°C	1.0M	U		K1=3.79	1984KPf (37433)	405
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in 1.0 M HCl

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
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H3A is carboxymethylthiosuccinic acid.

Nd+++	gl	NaClO4	30°C	0.10M	M	M	K1=3.77	1976SJa (37435)	407
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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	NaN03	25°C	0.50M	C		K1=2.61 B(NdH-1L)=-4.55 B(NdH-2L2)=-8.87 B(Nd2H-2L2)=-4.92	1977DPa (37540)	410

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 K3=3.10	1998ZBa (38036)	412

Medium: 60% EtOH/H2O, 0.1 M NaClO4

Nd+++	gl	KCl	25°C	0.10M	U		K1=5.38 B2=9.48 K3=3.16	1995PAa (38037)	413
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Nd+++	gl	diox/w	30°C	75%	U		K1=7.00 B2=12.95 K3=4.81	1979MBc (38038)	414
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Nd+++	gl	NaClO4	20°C	0.10M	U	M		1973TZa (38039)	415
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K(Nd(EDTA)+L)=3.52

Nd+++	gl	R4N.X	25°C	0.10M	U	M		1972FGa (38040)	416
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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	1971K0a (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 K3=4.64	B2=12.46 1964DBb (38044)	420
Medium: 67% acetone, 0.1 M NaClO4									
Nd+++	gl	oth/un	30°C	0.10M	U		K1=5.30 K3=3.2	B2=9.40 1960GFa (38045)	421
Nd+++	gl	mixed	?	75%	U		K1=6.91 K3=4.54	B2=12.56 1957DBb (38046)	422
Medium: 75% acetone									
Nd+++	gl	oth/un	30°C	0.0	U		K1=5.6 K3=3.2	B2=9.9 1955IFa (38047)	423

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 B(NdLA)=7.78 K(NdL+A)=4.40 K(NdA+L)=2.45 B(NdLB)=8.11	B2= 7.63 1984SHb (38213)	424
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	B(NdLA)=7.67 K(NdL+A)=4.45 K(NdA+L)=2.34 B(NdLB)=7.38	1984SHb (38214)	425
K(NdL+B)=4.17, K(NdB+L)=2.05. H2A is thiodiethanoic acid, H2B is thiodipropoic acid.									
Nd+++	gl	NaClO4	30°C	0.10M	U	M	B(NdLA)=8.58 K(NdL+A)=4.48	1984SHc (38215)	426

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 B(NdHL)=11.27 B(NdH2L)=14.88	1991DWb (39103)	439
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		B(NdHL)=11.84	1982PMa (39105)	441
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 B3=15.55 B(Nd+2OH+L)=17.32	1980MGc (39268)	443
Nd+++	sp	KCl	25°C	0.40M	U		K3=3.35	1979MMf (39269)	444

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	NaCl04	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	NaCl04	30°C	0.2M	U		K1=4.53	1977MSf (39827)	446

Nd+++	gl	NaCl04	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 K3=1.32	1969PCa (40259)	453

C5H10O3		HL					CAS 617-31-2	(474)	
2-Hydroxypentanoic acid; CH3.CH2.CH2.CH(OH).COOH									

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									

Nd+++	gl	NaClO4	25°C	0.10M	U		K1=2.37 K3=1.32	1970RDa (40301)	455

C5H10O4		HL					CAS 19860-56-1	(2327)	
2,3-Dihydroxy-2-methylbutanoic acid; CH3.CH(OH).C(OH)(CH3).COOH									

Nd+++	gl	KNO3	25°C	0.10M	C		K1=3.03 K3=1.38	1975PFb (40316)	456

C5H10O5		L		D-Ribose			CAS 50-69-1	(512)	
D-Ribose;									

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									

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 K(Nd(phen)+L)=6.05	1990LSb (40734)	459

Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=6.52 K(Nd(EDTA)+L)=5.86	1986LSb (40735)	460

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 B3=8.45	1977GGb (42571)	472
Nd+++	gl	KNO3	25°C	0.10M	U		K1=3.88 K3=2.74 K4=2.04	1968PIa (42572)	473
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 B3=9.33	1964MTa (42574)	475
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 B3=10.0	1964THb (42575)	476

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 K(Nd(egta)+L)=5.56	1996KDb (42937)	479

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 KNO3 25°C 0.05M M I K1=10.00 B2=19.01 1981BDc (43803) 490
Also data for I=0.2 and 0.35 M. At I=0, K1=10.58, K2=8.60.

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
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Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=5.35 K(Nd(EDTA)+L)=2.50	1986LSb (43881)	494
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Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=5.40 K(Nd(edta)+L)=2.54	1985LSf (43882)	495
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Nd+++	gl	NaClO4	28°C	0.20M	U	M	K1=5.35 K(Nd(edta)+L)=2.50	1982LSa (43883)	496
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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
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Nd+++	gl	NaClO4	25°C	0.20M	U		K1=10.42	1996PJa (43972)	497
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Nd+++	gl	NaClO4	30°C	0.20M	U	M	K1=10.12 K(Nd(NTA)+L)=5.84	1978MSk (43973)	498
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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
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Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=4.10 K(Nd(EDTA)+L)=2.65	1986LSb (44018)	499
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Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=4.06 K(Nd(edta)+L)=2.64	1985LSf (44019)	500
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Nd+++	gl	NaClO4	28°C	0.20M	U	M	K1=4.00 K(Nd(edta)+L)=2.60	1982LSa (44020)	501
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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	NaCl04	30°C	0.10M	U	M		K1=5.79 B2=10.61 B(NdLA)=12.50 K(NdA+L)=6.00 K(NdB+L)=5.26 K(NdC+L)=4.69	1989N0b (44095)	502

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

Nd+++	gl	NaCl04	30°C	0.10M	U			K1=6.22 B2=11.14 K3=3.54	1970DSc (44096)	503
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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	NaCl04	30°C	0.10M	U	M		K1=5.23 B2=9.84 B(NdLA)=12.06 K(NdA+L)=5.56 K(NdB+L)=4.77 K(NdC+L)=4.32	1989N0b (44233)	504

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

Nd+++	sp	KCl	25°C	0.10M	C	I		K1=5.743	1987PEa (44234)	505
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In 0.086 M KCl, K1=5.766.

Nd+++	gl	oth/un	30°C	0.10M	U			K1=5.80 B2=10.63 K3=4.03	1972DSd (44235)	506
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C6H6O6 H3L cis-Aconitic CAS 585-84-2 (3064)
cis-1,2,3-Propenetricarboxylic acid, cis-Aconitic acid; H00C.CH:C(C00H)CH2.C00H

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

C6H6O6S H4L CAS 29714-59-8 (3688)
2,3,4-Trihydroxybenzenesulfonic acid; (H0)3.C6H2.S03H

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
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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; H00C.CH(CH2.CH:CH2).C00H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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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
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Nd+++ gl NaCl04 25°C 2.00M U IH K(Nd+HL)=1.54 1988HSa (45650) 518

DH=2.7 kJ mol⁻¹, DS=38.7 J K⁻¹ mol⁻¹

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Nd+++ sp oth/un ? 0.30M U K1=8.65 1970PEb (45651) 519

C6H8O6S H3L CAS 99-68-3 (3692)
(Carboxymethylthio)butanedioic acid; H00C.CH(S.CH2.C00H).CH2.C00H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Nd+++ gl NaCl04 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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Nd+++ gl NaCl04 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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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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; H00CCH2.CH(OH)(C00H).CH2C00H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Nd+++ gl NaCl04 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

$$B(\text{NdL}(\text{OH}))=7.38$$

$$B(\text{Nd}_3(\text{OH})_4\text{L}_4)=35.33$$

Nd+++	gl	KNO ₃	25°C	0.10M	U	M		1975TDa (46197)	524
							B(Nd(IDA)L)=11.0		

Nd+++	dis	NaClO ₄	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/H ₂ O, 0.05 M (NaCl, NaClO ₄). 0%, K1=7.96, 50%, K1=9.66									

Nd+++	sp	KCl	?	0.10M	U		K1=8.2	1970AMb (46200)	527
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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	NaClO ₄	25°C	1.00M	U		K1=5.93 B2=9.75	1991WPb (46333)	529

C6H9NO6 H3L NTA CAS 139-13-9 (191)
 Nitritotriethanoic acid; N(CH₂.COOH)₃

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Nd+++	ISE	NaClO ₄	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/H ₂ O, 0.10 M NaClO ₄ .									

Nd+++	gl	NaCl	37°C	0.15M	U		K1=10.05 B2=17.99	1992FDa (46934)	532
							B(CaNdL ₂)=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	KNO ₃	25°C	0.10M	C		K1=11.23	1980NSf (46936)	534
Competitive method using Cd ion-selective electrode.									

Nd+++	gl	KNO ₃	20°C	1.0M	C		K2=7.86	1978GHb (46937)	535
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Nd+++	gl	KCl	25°C	1.00M	U		K1=11.10	1978MGa (46938)	536
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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

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-----
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

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Nd+++      gl  NaCl04 30°C 0.10M M      M      K1=2.90      1976SJa (48079) 559
*****
C6H10O4S      H2L      CAS 111-17-1 (139)
3,3'-Thiodipropanoic acid; H00C.CH2.CH2.S.CH2.CH2.C00H
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Nd+++      gl  NaCl04 30°C 0.10M U      M      B(NdLA)=7.77
                                         K(NdL+A)=3.67
                                         K(NdA+L)=4.56

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H3A is carboxymethylthiosuccinic acid.

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*****
C6H10O6      H2L      CAS 23243-68-7 (242)
1,2-Bis(carboxymethoxy)ethane; H00C.CH2.O.CH2.CH2.O.CH2.C00H
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Nd+++      oth NaCl04 25°C 0.10M U      K1=5.10      1984AFa (48346) 561
Laser excitation spectroscopy, competition method.
-----
Nd+++      gl  NaCl04 25°C 1.00M C      H      K1=4.92      B2=7.96      1974GGa (48347) 562
                                         B3=8.63
                                         B(NdHL2)=9.86

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*****
C6H10O8      H2L      Saccharic acid CAS 87-73-0 (1191)
D-2,3,4,5-Tetrahydroxy-1,6-hexanedioic acid, Glucaric acid; H00C.(CH0H)4.C00H
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Nd+++      gl  NaCl04 25°C 0.10M U      M      K1=4.53      1997PPb (48485) 563
                                         K(Nd(edta)+L)=4.05

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*****
C6H11NO5      H2L      HIMDA      CAS 93-62-9 (192)
N-(2-Hydroxyethyl)iminodiethanoic acid; H0.CH2.CH2.N(CH2.C00H)2
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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 NaCl04.
-----
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

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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

C6H1203 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	1965TVa (49475)	580

Method: quinhydrone electrode

C6H1203 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	1970Gnd (49482)	581
Nd+++	EMF	NaClO4	25°C	1.0M	U		K1=2.38 K3=1.17 K4=1.06	1964EVa (49483)	582

Method: quinhydrone electrode.

C6H1204 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	1979PPa (49497)	583

C6H1207 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 1963K0c (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

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.

C6H20N2012P4 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		K(NdL+H)=7.19 K(NdHL+H)=6.68	1991SKb (52354)	609

Nd+++	gl	KCl	25°C	0.10M	U		K1=21.47 K(Nd+HL)=16.77 K(Nd+H2L)=13.05 K(Nd+H3L)=10.43 K(Nd+H4L)=8.04	1967KDa (52355)	610
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K(Nd+H5L)=4

C7H4N207 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 *K(NdL)=-7.41 K(Nd(egta)+L)=4.84	1996KDc (52494)	611

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 B(NdAL)=12.45 K(NdA+L)=1.74 K(NdL+A)=8.00	1976SJa (52495)	612
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H2A is 4-hydroxysalicylic acid.

Nd+++	gl	oth/un	24°C	0.20M	U		K1=4.90	1972PSd (52496)	613
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Medium: LiCl

C7H5N04 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 K3=4.19	1978SSi (53546)	621
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 K3=4.40	1969CMb (53683)	622

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 *K(NdL)=-7.91 K(Nd(egta)+L)=5.72	1996KDc (54268)	625
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 K(Nd(EDTA)+L)=7.63	1986LSb (54270)	627
Medium: 40% v/v EtOH/H2O, 0.2 M NaClO4									
Nd+++	gl	NaClO4	25°C	0.20M	U	M	K1=8.07 K(Nd(edta)+L)=7.66	1985LSf (54271)	628
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
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Nd+++ gl NaCl04 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
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Nd+++ gl NaCl04 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 NaCl04 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
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Nd+++ gl NaCl04 25°C 0.20M U M T K1=6.48 1986LSb (54533) 637

K(Nd(EDTA)+L)=4.33

Nd+++ gl NaCl04 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 NaCl04 25°C 0.20M U M K1=6.55 1985LSf (54535) 639
K(Nd(edta)+L)=4.40

Nd+++ gl NaCl04 30°C 0.10M M M K1=10.91 B2=20.66 1976SJa (54536) 640

C7H604 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
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Nd+++ gl NaCl04 25°C 0.20M U K1=11.41 1996PJa (54686) 641

Nd+++ gl NaCl04 25°C 0.20M U M K1=8.45 1986LSb (54687) 642
K(Nd(EDTA)+L)=4.88

Nd+++ gl NaCl04 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 NaCl04 25°C 0.20M U M K1=8.53 1985LSf (54689) 644
K(Nd(edta)+L)=4.96

C7H605 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
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Nd+++ gl NaCl04 30°C 0.20M U M K1=12.17 1978MSk (54758) 645
K(Nd(NTA)+L)=6.14

C7H605S H2L CAS 632-25-7 (4436)
2-Carboxybenzenesulfonic acid; H00C.C6H4.S03H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Nd+++ gl KCl 25°C 0.20M U K1=2.4 1973DPa (54780) 646

C7H606S H3L CAS 585-42-2 (6136)
2-Hydroxy-4-sulphobenzoic acid, 4-sulfosalicylic acid; H0.C6H3(COOH)(HS03)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Nd+++ sp oth/un 25°C 1.25M U 1977Kta (54804) 647
K(Nd+HL)=1.04
K(NdHL+HL)=0.73

C7H606S H3L CAS 5965-83-3 (399)

5-Sulfosalicylic acid, 2-Hydroxy-5-sulfobenzoic; H03S.C6H3(OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	KN03	20°C	0.10M	U	T	K1=7.71	1982DBa (55029)	648
Nd+++	gl	KN03	30°C	0.10M	U	M	K(Nd(NTA)+L)=5.92	1976RTb (55030)	649
Nd+++	gl	NaCl04	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

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

Nd+++	gl	NaCl04	20°C	1.0M	U		K1=6.35 B2=11.85	1972CBb (55032)	651
Nd+++	sp	NaCl04	20°C	0.10M	U		K1=7.39 B2=13.01 K(Nd+HL)=2.09	1968KTb (55033)	652

C7H6O9S2 H3L CAS 56507-30-3 (2659)
3,5-Disulfosalicylic acid; (H03S)2.C6H2(OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	gl	NaCl04	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.									
Nd+++	gl	NaCl04	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 K(Nd+OH+L)=15.16	1991BPb (55692)	666

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.

C7H802 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	NaNO ₃	25°C	0.0	U	M	K1=9.81 K(Nd(egta)+L)=5.76	1996KDb (56073)	667

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
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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

C7H803 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 B3=14.68 K(Nd+HL=NdL+H)=-2.60 K(NdL+HL=NdL ₂ +H)=-3.68 K(NdL ₂ +HL=NdL ₃ +H)=-4.63	1987PEa (56101)	669

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

C7H804 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

C7H805 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

C7H11N04 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; H00C.CH(C2H5)NH.CH(COOH)2									

Nd+++	gl	KNO3	25°C	0.1M	U		K1=8.51	1982KKc (56849)	673

C7H11NO6		H3L		MNTA			(1026)		
Nitrilo(2-propanoic)-diethanoic acid; H00C.CH(CH3).N(CH2.COOH)2									

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									

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									

Nd+++	gl	KCl	25°C	0.10M	U		K1=2.75	1973FMa (57152)	676

C7H12O3		HL					CAS 609-69-8 (3731)		
2-Hydroxycyclohexanecarboxylic acid; H0.C6H10.COOH									

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									

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 1990KMf (57309) 679

K(Nd(nta)+L)=6.24
K(Nd(hedta)+L)=6.14
K(Nd(cdta)+L)=5.78
K(Nd(dtpa)+L)=5.88

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 1984SHc (57368) 680

B(NdLA)=8.61
K(NdL+A)=4.51
K(NdA+L)=3.49

H3A is carboxymethylthiosuccinic acid.

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)
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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)
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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 K3=1.32	1965TVa (57864)	687

Method: quinhydrone electrode

C7H15NO4	HL	CAS 41244-51-3	(4459)
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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)
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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		Kso=5.00	1960WKa (58391)	689

C8H5N5O6	H3L	Murexide	(453)
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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		K(Nd+H2L)=4.04	1965GEa (58526)	691
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C8H5O2F3S	HL	TTA	CAS 326-91-0	(165)
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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 K3=3.94	B2=11.67 1995MTa (58653)	694
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 K3=3.87	B2=9.82 1966PEa (58704)	700

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 K(Nd(egta)+L)=4.15	1995KDb (58993)	701
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 K(Nd(EDTA)+L)=3.96	1986LSb (58994)	702
Medium: 40% v/v EtOH/H2O, 0.2 M NaClO4										
Nd+++	gl	NaClO4	25°C	0.20M	U	M		K1=4.77 K(Nd(edta)+L)=3.98	1985LSf (58995)	703
Nd+++	gl	NaClO4	30°C	0.10M	M	M		K1=4.22 B2= 7.47 B(NdAL)=7.39 K(NdA+L)=3.14 K(NdL+A)=3.18 B(NdBL)=8.18	1976SJa (58996)	704
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		B(NdAL)=8.74 K(NdA+L)=1.35 K(NdL+A)=4.52 B(NdBL)=8.22	1976SJa (58997)	705
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 K3=8.32	1989LWa (59127)	709

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
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Nd+++	gl	alc/w	25°C	20%	M I		K1=5.76	1994KDa (59220)	710
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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
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Nd+++	gl	diox/w	30°C	50%	U T H		B2=16.11	1988NOa (59312)	711
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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
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Nd+++	gl	diox/w	20°C	50%	U		K1=6.60 B2=12.48	1971MAf (59340)	712
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Medium: 50% dioxan, 0.1 M NaClO4

C8H8N4O5 L (6097)
2-Acetylpyridinethiosemicarbazone; C5H4N.CO.CH:N.NH.CS.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Nd+++	gl	alc/w	25°C	75%	C I		K1=7.54 B2=14.23	1988GSa (59410)	713
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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
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Nd+++	gl	alc/w	25°C	20%	M I		K1=6.36	1994KDa (59468)	714
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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
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Nd+++	gl	NaClO4	25°C	0.1M C	H		K1=2.09	1996HYa (59557)	715
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By calorimetry: DH(K1)=10.21 kJ mol⁻¹

Nd+++	gl	NaClO4	25°C	0.10M C	H		K1=2.09	1990HYa (59558)	716
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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
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Method: polarography. At 35 C, K1=3.8. Also DH and DS values.

C8H8O2	HL						CAS 583-80-2	(3191)	
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beta-Methyltropolone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Nd+++	sp	alc/w	?	3% U			K1=6.78	1967GDb (59601)	718
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Medium: 3% EtOH, 0.2 M NaClO4

C8H8O2Se	HL	Selenoylacetone					CAS 1680-37-1	(4508)	
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1-(2'-Selenoyl)butane-1,3-dione;

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Nd+++	gl	alc/w	25°C	20% M	I		K(Nd+HL)=6.14	1994KDa (59681)	720
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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)	
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2-Methoxybenzoic acid; CH3O.C6H4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Nd+++	gl	NaClO4	25°C	0.10M M	H		K1=2.08	1988CLb (59741)	721
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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
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Nd+++	sp	KCl	25°C	0.10M U			K1=1.24 B2=1.79	1981MTc (59743)	723
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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 K(NdL+Phen)=3.65 1996YLa (59854) 725

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

hedta is N-hydroxyethyldiaminoethane-N,N',N'-triethanoic acid.

Data for 20-50 C. At 30 C, $K_1=5.69$, $K_2=5.35$, $K_3=4.50$.

Medium: 50% dioxan, 0.1 M NaClO₄

Nd+++ g1 diox/w 30°C 50% C TIH K1=5.81 B2=10.99 1989GDa (60817) 745
DH(K1)=-143.6 kJ mol⁻¹

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
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* 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

$$B(\text{NdH}-2\text{L})=-6.5$$

C8H12N2O3 H2L Barbitol 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
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Nd+++	gl	KNO ₃	20°C	0.10M	U			K ₁ =10.82 B ₂ =18.50	1974RMg (61791)	760
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C ₈ H ₁₃ N ₂ O ₆ S		H ₃ L						(5675)		
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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
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Nd+++	gl	NaClO ₄	25°C	0.10M	U			K ₁ =8.25	1975POa (61827)	761
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K(Nd+HL)=2.66

C ₈ H ₁₄ O ₃		HL						CAS 607-97-6	(4489)	
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3-Ethylethylacetoacetate; CH₃.CO.CH(C₂H₅).CO.OC₂H₅

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Nd+++	gl	mixed	30°C	75%	U			K ₁ =8.43	1971DRb (62080)	762
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Medium: 75% acetone, 0.1 M

C ₈ H ₁₄ O ₄		H ₂ L		Suberic acid				CAS 505-48-6	(517)	
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Octanedioic acid; HOOC.(CH₂)₆.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Nd+++	gl	KNO ₃	25°C	0.20M	U	M			1990KMF (62098)	763
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K(Nd(nta)+L)=3.42

K(Nd(hedta)+L)=3.35

K(Nd(cdta)+L)=3.30

K(Nd(dtpa)+L)=3.27

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

Nd+++	gl	KNO ₃	25°C	0.10M	U	TI M		K ₁ =4.55	1988BKb (62099)	764
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K(Nd(hedta)+L)=3.54

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

C ₈ H ₁₆ N ₂ O ₃		HL		Gly-Leu				CAS 869-19-2	(255)	
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Glycyl-leucine; H₂N.CH₂.CO.NH.CH(CH₂.CH(CH₃)₂).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Nd+++	gl	KCl	25°C	0.10M	U			K ₁ =2.40	1973FMa (62391)	765
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C ₈ H ₁₆ N ₂ O ₃		HL		Leu-Gly				CAS 686-50-0	(1248)	
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Leucyl-glycine; H₂N.CH(CH₂.CH(CH₃)₂).CO.NH.CH₂.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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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)
Ethyl-diethoxyphosphonacetate; (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

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									

C9H7N04S		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									

Nd+++	gl	oth/un	25°C	0.0	U	H	K1=6.3 K3=4.4	B2=11.60 1958F0b (64568)	791
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 K(Nd+HL)=4.40 K(NdL+H)=6.05	19850Hb (64717)	792

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 K(NdHL)=10.14	1967GDc (64949)	794
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 1966TVa (65440) 800
K3=1.42
K4=1.21

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-Cyclopentanetetra-carboxylic 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 K1=10.20 when T=40. K1=10.35 when T=50.	1979NSb (65647)	810

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
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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
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Nd+++	gl	KCl	25°C	0.10M	U		K1=4.2	1972BFe (65962)	814
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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		K(Nd+HL)=4.60	1986KHc (66235)	815

Method: polarography. Medium pH 2.70. Also data for 35 C.

Nd+++	gl	KNO3	25°C	0.10M	U T H		K(Nd+HL)=4.54 K(NdHL+HL)=4.01	1976SAd (66236)	816
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Nd+++	gl	KCl	25°C	0.10M	U		K(Nd+HL)=4.1 K(NdHL+HL)=3.5	1972BFe (66237)	817
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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
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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

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
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Nd+++	cal	NaClO4	25°C	0.50M	M	IH	K1=12.14	1986RCa (67642)	832
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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
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Nd+++	gl	KNO3	25°C	0.10M	U		K1=4.06 B2=7.05	1968PFa (67776)	833
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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
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Nd+++	gl	KNO3	25°C	0.20M	U	M		1990KMF (67795)	834
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K(Nd(nta)+L)=3.92
 K(Nd(hedta)+L)=3.40
 K(Nd(cdta)+L)=3.27
 K(Nd(dtpa)+L)=3.22

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

Nd+++	gl	KNO3	25°C	0.10M	U	TI M	K1=4.70	1988BKb (67796)	835
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K(Nd(hedta)+L)=3.84

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 acid 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
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Nd+++	sp	KCl	20°C	0.5M	C		K1=2.01 B2=3.87	1993YWa (67816)	836
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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
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Nd+++	gl	alc/w	22°C	80%	U		K1=6.10 B2=11.61	1995MTa (68430)	837
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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 K3=6.87 B2=15.14	1992SAa (68478)	838

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
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Nd+++	gl	NaClO4	25°C	0.10M	U	H	K1=4.73 K(Nd+HL)=3.76	1994CRa (68525)	839
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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
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Nd+++	sp	KCl	25°C	0.10M	M	I	K1=4.44	1976PEa (68582)	840
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Nd+++	gl	diox/w	30°C	75%	U		K1=9.5 B3=25.56 B2=17.7	1957CFa (68583)	841
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C10H7NO2 HL CAS 132-53-6 (2524)

2-Nitroso-1-naphthol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Nd+++	gl	diox/w	30°C	75%	U		K1=8.51 B3=23.16 B2=16.11	1957CFa (68651)	842
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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
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Nd+++	gl	NaClO4	30°C	0.10M	U		K1=2.57 B2=4.92	1969DNc (68715)	843
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C10H7NO2 HL CAS 86-59-9 (873)

Quinoline-8-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Nd+++	gl	NaClO4	30°C	0.10M	U		K1=2.55	1969DNc (68767)	844
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C10H7NO5S H2L CAS 14090-74-5 (2676)

1-Nitroso-2-hydroxynaphthalene-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

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

C10H7N08S2 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		2001RNa (69628)	857
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K(NdI3+2L)=3.15

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

K(NdA3+2L)=6.87

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
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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
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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

C10H9N3O5 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
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Nd+++	sp	diox/w	25°C	10%	U			K1=9.01	1973KSd (70364)	868
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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
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Nd+++	sp	KNO3	25°C	0.10M	U			K1=8.53	1974KSa (70402)	869
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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
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Nd+++	gl	diox/w	30°C	75%	U			K1=7.13 B2=13.26 K3=4.85	1979MBc (70437)	870
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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
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Nd+++	gl	diox/w	30°C	75%	U			K1=7.08 B2=13.23 K3=4.81	1979MBc (70450)	871
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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
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Nd+++	sp	oth/un	?	?	U				1966TPa (70581)	872
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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
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Nd+++	gl	alc/w	25°C	50%	C	M		K1=7.60 B2=14.20 K(Nd(nta)+L)=7.54	1993EEa (70617)	873
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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 B2=7.21 K3=3.16	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 B2=13.45 K3=4.76	1979MBc (70754)	875

Nd+++	gl	alc/w	25°C	80%	U		K1=7.83 B2=13.96 K3=4.13	1967DZa (70755)	876
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Medium: 80% MeOH, 0.1 M NaCl

Nd+++	gl	alc/w	24°C	80%	U		K1=7.83 B2=13.96 K3 = 4.13	1967DZb (70756)	877
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Medium: 80% v/v MeOH/H2O, 0.1 M NaCl

Nd+++	gl	alc/w	22°C	100%	U		K1=10.8 B2=19.30 K3=4.4 K4=2.6	1967ZDa (70757)	878
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Medium: 0.1(NaCl),100% methanol.

Nd+++	gl	mixed	30°C	67%	U		K1=6.94 B2=13.55 K3=5.58	1964DBb (70758)	879
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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
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 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.

C10H1202 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 K(Nd(NTA)+L)=5.87	1980SGa (71593)	889
Nd+++	gl	alc/w	24°C	80%	U			K1=8.4 B2=15.39 K3=5.7 K4=4.2	1968DZb (71594)	890

Medium: 80% MeOH, 0.1 M NaCl

Nd+++ sp alc/w ? 3% U K1=6.70 1967GDb (71595) 891

Medium: 3% EtOH, 0.2 M NaCl04

C10H1204 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 K1(35, 40, 50 C) = 7.51, 7.28, 7.12 respectively. DH(K1)=31.8 kJ mol-1	1987GBa (71655)	892

C10H1205 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 NaCl04.

C10H1205 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 NaCl04.

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
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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 K(Nd+HL)=6.51	1980MMe (73161)	896
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, Sequestic 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		K(NdL+H)=1.54	1984BKc (73990)	903
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	K(NdL+oxalate)=2.34	1982ATa (73993)	906
Nd+++	gl	NaClO4	28°C	0.20M	U		K1=10.56	1982LSa (73994)	907
Nd+++	gl	NaClO4	20°C	0.02M	U	M	K(NdL+PO4)=3.36	1982MPd (73995)	908
Nd+++	kin	KNO3	23°C	0.10M	U		K1=15.63	1979MKa (73996)	909
Nd+++	gl	KNO3	35°C	0.10M	U	T	K(NdL+ADP)=3.28	1978DMb (73997)	910

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 NaCl04 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 K(NdL+H)=2.14 1976GMb (74006) 919

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	KN03	20°C	0.10M	U	M	1974TDa (74012)	925	K(NdL+Citrate)=3.5

Nd+++	gl	KN03	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	KN03	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	NaCl04	25°C	0.10M	U	M	1969AIb (74017)	930	K(NdL+A)=6.45, H4A=tiron

Nd+++	dis	oth/un	25°C	?	U		1969PJa (74018)	931	K1=16.57 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	1959BDb (74020)	933	K1=16.05 DH(K1)=-3.4 kJ mol ⁻¹ , DS=293 J K ⁻¹ mol ⁻¹

Nd+++	cal	KN03	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		1955WSa (74022)	935	K1=16.48 Polarography also used

Nd+++	gl	KCl	20°C	0.10M	U	I T	1954SGa (74023)	936	K1=16.47 In 0.1 M KN03 K1=16.61, K(NdL+H)=4.39

Nd+++	gl	KCl	20°C	0.10M	U	I T	1953WSa (74024)	937	K1=16.06 By polarography, 0.1 M KN03, K1=16.0

Nd+++	gl	KCl	20°C	0.10M	U		1952VIa (74025)	938	K1=16.75

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 1993VL a (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	NaCl04	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	NaCl04	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	NaCl04	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 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	1961MFb (75461)	958

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

C10H2105P 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

C10H2205 L Tetraglyme CAS 143-24-8 (121)
2,5,8,11,14-Pentaoxapentadecane; (CH3.O.CH2.CH2.O.CH2.CH2.)20

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

C10H26N406P2 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

C11H803 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

C11H803 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; CH0.C9H30(: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 19840Ha (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
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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
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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
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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
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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
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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
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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 K(Nd+HL)=10.64 K(Nd+H2L)=5.78	1982KTc (79112)	1009

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 *K(NdHL)=-4.03	1971AWa (79460)	1015
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 K(NdL+H)=4.03	1964LAa (79461)	1016
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 K3=7.93	1972DSd (79655)	1019

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(hydroxymethyl)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+20H+2L)=21.71		
							K(2Nd+40H+2L)=32.77		
							K(2Nd+50H+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 K3=5.64	1995MTa (80187)	1023

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	K(NdA3+L)=7.42	1998YHa (80501)	1025
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)salicylalimine;									
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)]naphthol-4-sulphonic acid;

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

Nd+++ gl NaCl04 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 NaCl04

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 NaCl04

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

C12H12N3O3Cl HL (1055)

2-Chloro-4-dimethylamino-benzylidenepyruvic acid; (CH3)2N.C6H3Cl.CH:CH.CO.CO0H

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

Nd+++ sp NaCl04 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 NaCl04 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
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Nd+++	sp	NaCl04	25°C	0.50M	U		K1=2.249	1987MSa	(81201)1038
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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
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Nd+++	dis	R4N.X	25°C	0.12M	C		K1=2.39	1998SUa	(81699)1039
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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
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Nd+++	gl	KNO3	25°C	0.10M	C		K1=5.70	1988YSa	(81816)1040
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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
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Nd+++	gl	R4N.X	25°C	0.10M	C		K1=5.93	1988CCb	(81840)1041
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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
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Nd+++	EMF	KNO3	25°C	0.10M	U		K1=13.33	1985SGa	(81873)1042
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Nd+++	EMF	KNO3	25°C	0.10M	U		K1=15.04 B2=19.14	1980SGb	(81874)1043
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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
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Nd+++	vlt	KNO3	20°C	0.10M	U		K1=17.77	1968NLa	(82030)1044
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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									

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; ((HOOCH2)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
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Nd+++	oth	oth/un	?	?	U		K1=15.16	1957HLA (82556)	1061
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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'-tetraethanoic acid;
 (HOOCH2)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; HOOCH(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			1993INa (83554)	1068
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B(NdPL)=6.79
B(NdPL2)=8.70

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

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

At pH 3.4 by competition with 18-crown-6. Medium: MeOH, 0.03 M Et4NC104

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 Et4NC104

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
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Nd+++	gl	non-aq	25°C	100%	C		K1=5.46	1989BP	(84014)1073
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Medium: anhydrous propylene carbonate, 0.1 M Et4NClO4

C12H27N3O3	L						CAS 490025-63-3	(8901)	
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1,3,5-Trideoxy-1,3,5-tris(ethylamino)-cis-inositol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Nd+++	gl	KCl	25°C	0.1M	C			2002DG	c (84076)1074
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B(Nd3H-6L3)=-26.4

C12H28N2O9P2	H4L						(7242)		
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1,4,10-Trioxa-7,13-diazacyclopentadecane-7,13-diylldimethylenediphosphonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Nd+++	gl	R4N.X	25°C	0.10M	U		K1=14.36 K(Nd+HL)=10.74 K(Nd+H2L)=5.44	1996BJ	a (84160)1075
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Medium: 0.1 M Me4NCl

C12H30N6	L						CAS 296-35-5	(143)	
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1,4,7,10,13,16-Hexaazacyclooctadecane; cyclo(-(NH.CH2.CH2)6-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Nd+++	gl	NaNO3	25°C	0.20M	C		K1=8.03	1991KK	a (84344)1076
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Nd+++	gl	NaCl	20°C	0.10M	C		K1=10.2	1988SJ	b (84345)1077
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C13H502F13S	L						(6997)		
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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
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Nd+++	gl	alc/w	22°C	80%	U		K1=5.63 B2=10.76 K3=4.28	1995MT	a (84458)1078
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Medium: 0.1 M NaClO4 in 80% (v/v) EtOH/H2O.

C13H8O3	H2L						CAS 18931-22-1	(2913)	
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peri-Dihydroxynaphthindenone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Nd+++	sp	alc/w	25°C	50%	U		K1=9.90	1982HM	a (84505)1079
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C13H9F02S	HL						CAS 43191-66-8	(6154)	
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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	1977AKa (84604)	1081
K3=5.04									

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	1977DWa (85087)	1084
K3=3.8									

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	1977AKa (85168)	1085
K3=8.29									
Nd+++	gl	NaClO4	25°C	0.10M	U		K1=7.88 B2=14.18	1969DSb (85169)	1086
K3=5.03									

C13H11N04S H2L CAS 124452-52-4 (8496)
2-[(Phenylimino)methyl]phenol 4-sulfonic acid;

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	

C13H11NS HL CAS 42152-36-3 (8401)
2-[(Phenylmethylene)amino]benzenethiol;

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-Acetylphenylhydrazono)-1,1,1-trifluoropentane-2,4-dione;
CF3.CO.C(CO.CH3):N.HN.C6H4.COCH3

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;

[illegible]

C13H12N2O3S HL (6203)
Salicylidenesulfanilamide, 4-(N-(2-Hydroxybenzylene))aminosulanilamide;
H2NSO2C6H4N:CHC6H4OH

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-Benzylnitritotriethanoic 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	KN03	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									

$$K(\text{NdL}+\text{H})=4.68$$

C13H22N2O8 H4L CAS 1798-14-7 (921)
(Pentamethylenedinitrilo)tetraethanoic acid; ((HOOCH₂)₂N₂CH₂CH₂)₂CH₂

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Nd+++	gl	KNO ₃	25°C	0.10M	C			K1=9.77 K(Nd+HL)=6.52	1982PPd (86201)	1099
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C13H22N2O8 H4L CAS 1198-14-7 (5004)
1,2-Diaminopentane-N,N,N',N'-tetraethanoic acid; (HOOCH₂)₂NCH₂CH(C₃H₇)N(CH₂COOH)₂

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Nd+++	vlt	KNO ₃	20°C	0.10M	U			K1=17.76	1974NL a (86232)	1100
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C13H22N2O8 H4L (7164)
2,4-Diaminopentane-N,N,N',N'-tetraethanoic acid;
(HOOCH₂)₂NCH(CH₃)CH₂CH(CH₃)N(CH₂COOH)₂

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Nd+++	gl	KNO ₃	20°C	0.10M	U			K1=11.30	1981NSc (86260)	1101
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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
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Nd+++	vlt	KNO ₃	20°C	0.10M	U			K1=17.57	1968NL b (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
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Nd+++	gl	KNO ₃	25°C	0.10M	C			K1=14.80 K(Nd+HL)=9.40	1985PL a (86307)	1103
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C13H26O5 L (6410)
15,15-Dimethyl-1,4,7,10,13-pentaoxacyclohexadecane;

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

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-----
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;
-----

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-----
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
-----

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*****
C14H9NO3          HL          CAS 116-85-8 (1020)
1-Amino-4-hydroxyanthraquinone;
-----

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-----
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;
-----

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-----
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
-----

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-----
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;
-----

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-----
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      19820Ca (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 K3=7.21	1983AGb	(87048)1113

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 K3=7.08	1983AGb	(87074)1114

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 K3=7.37	1983AGb	(87083)1115

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 B3=13.65	1976WPb	(87177)1116

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 K3=7.70	1983AGb	(87448)1124

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; (CH3C6H5)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
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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

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-----
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

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$$K(\text{NdL}+\text{C})=3.92$$

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
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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
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 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; (H00CCH2)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; ((H00C.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;									
(H00CCH2)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.CO0H)CH2.COOC2H5)2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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 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; (H00C.CH2CH2)2N.CH2CH2.N(CH2CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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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
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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-0,0'-bis(2-aminoethyl ether)-N,N,N',N'-tetraethanoic acid; H4L

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

Nd+++ gl KCl 25°C 1.0M U M K2=1.47 1985KBb (89906)1188
K(NdL+ida)=1.6

Nd+++ sp oth/un 20°C 0.50M U K1=16.16 1968KKb (89907)1189
K(Nd+H2L)=2.0

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 1987MKa (89977)1192
K(Nd+HL)=6.9

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''-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 1968VL a (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 1986CO b (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-Heptaioxacycloheneicosane;

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-Heptaioxaheneicosane; CH3.0.(CH2.CH2.0)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-diylldimethylenediphosphonic 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 K(Nd+HL)=10.46 K(Nd+H2L)=5.50	1996BJa (90768)	1200

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 K(Nd+HL)=16.1 K(Nd+H2L)=14.6 K(Nd+H3L)=12.8	1987PBa (90876)	1202

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

C15H12O5 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
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Nd+++	gl	mixed	15°C	50%	U	T H		K1=8.03	1982BSb (91557)	1211
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Medium: 50%CH3CN in H2O

C15H12O2		HL						CAS 1214-47-7	(951)	
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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
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Nd+++	gl	alc/w	35°C	70%	U			K1=7.54 B2=14.90	1982SLb (91587)	1212
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Medium: 70% EtOH, 0.1 M KNO3

Nd+++	gl	alc/w	35°C	70%	U			K1=7.54 B2=14.90	1980SLb (91588)	1213
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C15H12O3		H2L						CAS 1469-94-9	(3445)	
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2-Hydroxydibenzoylmethane; HO.C6H4.CO.CH2.CO.C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Nd+++	gl	diox/w	30°C	70%	U				1996SNa (91607)	1214
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K(Nd+HL)=9.80

K(NdHL+HL)=8.85

Medium: 70% v/v dioxane/H2O, 1.0 M NaClO4.

C15H13NO2		HL						CAS 959-66-0	(245)	
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Benzoyl-acetanilide; C6H5.CO.CH2.CO.NH.C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Nd+++	gl	alc/w	30°C	70%	M			K1=5.40	1978SAb (91633)	1215
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C15H13NO2		HL						CAS 7369-44-0	(4066)	
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N-3-Diphenylpropenohydroxamic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Nd+++	dis	oth/un	RT	0.05M	C				1993ATa (91640)	1216
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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)	
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2-((1H-Benzimidazo-2-yl-methyl)-iminomethyl)phenol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Nd+++	gl	alc/w	30°C	60%	U	M		K1=5.54 B2=10.77	1990DOb (91665)	1217
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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-Benzylldiaminoethane-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 1966VL a (92378)1226

Nd+++ vlt oth/un ? ? U K1=18.18 1966VL a (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'-methanamide;

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-methanamide;

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-Benzothiazoliny1)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-naphthalylidysulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Nd+++	gl	NaClO4	30°C	0.10M	U			K(Nd+H2L=NdH2L)=5.45 K(NdHL+H)=7.54 K(NdL+H)=10.32	1976NDa (93203)	1236

C16H13N2O11AsS2	H6L	Arsenazo I	CAS 520-10-5 (277)
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2-(2'-Arsonophenylazo)chromotropic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Nd+++	sp	oth/un	20°C	0.10M	U			K(Nd+H2L)=8.66	1971SSd (93262)	1237
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C16H14N2O5	H2L	(7017)
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4-Hydroxy-1-carboxy-7-dimethylaminophenoxaz-3-one methyl ester;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Nd+++	sp	alc/w	25°C	10%	U	I		B3=18.54	1979KRb (93442)	1238
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Medium: 10% w/w EtOH/H2O, 0.1 M NaClO4. In 30%: B3=18.59

C16H14O2	HL	CAS 1775-98-0 (952)
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3-Phenyl-1-(2'-hydroxy-5'-methylphenyl)-2-propen-1-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Nd+++	gl	alc/w	35°C	70%	U			K1=7.84 B2=15.11	1982SLb (93532)	1239
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Medium: 70% EtOH, 0.1 M KNO3

C16H14O3	H2L	CAS 29976-82-7 (8522)
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1-(2-Hydroxy-5-methylphenyl)-3-phenyl-1,3-propanedione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Nd+++	gl	diox/w	30°C	70%	U				1996SNa (93539)	1240
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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)
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3-(4''-Methoxyphenyl)-1-(2'-hydroxyphenyl)-2-propen-1-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Nd+++	gl	alc/w	35°C	70%	U			K1=7.44 B2=14.42	1982SLb (93572)	1241
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Nd+++	gl	alc/w	35°C	70%	U			K1=7.44 B2=14.42	1980SLb (93573)	1242
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C16H14O4	HL	BHMA (5929)
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omega-Benzoyl-2-hydroxy-4-methoxy-3-methylacetophenone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Nd+++	gl	alc/w	30°C	25%	M			K1=6.36 B2=12.02	1987DGB (93583)	1243
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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-Acetylphenylhydrazon)-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 B(NdHL)=14.38 2001WZa (93845)1246

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

C16H3207 L (6411)
15-(2,5-Dioxaheptyl)-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.

C16H3502P 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

C16H3504P 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

C17H12N03Cl 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

C17H13N03 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.C4H0(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
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Nd+++	gl	alc/w	30°C	75%	U	M	B2=13.22	1991GDd (96156)	1276
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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
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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-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Nd+++	gl	alc/w	22°C	0.1M	U		K1=5.95 B2=11.28	2000TBb (96288)	1278
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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
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Nd+++	sp	NaNO3	25°C	0.10M	C		K1=8.33	19880Ha (96423)	1279
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K(Nd+HL)=2.74

C17H27N04 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
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Nd+++	cal	non-aq	25°C	100%	C	H		1993LLb (96536)	1280
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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
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Nd+++	gl	KNO3	25°C	0.10M	U		K1=8.43	1984TPa (96575)	1281
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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		K(NdCl ₃ +L)=1.68 K(NdCl ₃ +3L)=3.20	1969SSh (96818)	1282

Medium: n-butanol

C18H15NO3	HL	(6196)
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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 B3=15.68	1987ECa (96996)	1283

C18H15OP	L	CAS 791-28-6 (32)
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Triphenylphosphine oxide; (C₆H₅)₃PO

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	sp	non-aq	?	100%	U		K(NdCl ₃ +L)=2.43 K(NdCl ₃ +2L)=4.17 K(NdCl ₃ +3L)=5.79	1972SSh (97100)	1284

Medium: n-butanol

C18H16N2O3	HL	(5560)
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2-(2-Acetylphenylhydrazon)-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)
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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)
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N,N'-Ethylene-bis-(2-(2'-hydroxyphenyl))glycine; (H₂OCCH(C₆H₄OH)NHCH₂)₂

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	EMF	KNO ₃	25°C	0.10M	C T H		K1=17.95	1985HWb (97437)	1287

$$K(\text{NdL}+\text{H})=7.37$$

Method: Hg (and glass) electrode, using Hg(II) as competitive indicator ion. Data for 10-35 C. $\text{DH}(\text{K1})=-62.7 \text{ kJ mol}^{-1}$, $\text{DS}(\text{K1})=133 \text{ J K}^{-1} \text{ mol}^{-1}$.

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 K(Nd+L=NdL(OH)+H)=1.45 K(NdL(OH)+H)=10.45	1997CMa (97548)	1288

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. $\text{DH}(\text{K1})=-60.25 \text{ kJ mol}^{-1}$, $\text{DS}(\text{K1})=-154.7 \text{ J K}^{-1} \text{ mol}^{-1}$.

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Method: Hg electrode; competitive reaction with Hg(II).
Data for 15-35 C. At 25 C, $\Delta H(K1) = -124 \text{ kJ mol}^{-1}$, $\Delta S(K1) = 21.0 \text{ J K}^{-1} \text{ mol}^{-1}$.

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.

Nd+++	gl	KN03	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
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C18H32N4O8	H4L	TETA	CAS 60239-22-7 (1019)
1,4,8,11-Tetraazacyclotetradecane-1,4,8,11-tetraethanoic acid;			

Nd+++	EMF NaCl	80°C	1.00M	C	K1=14.51	1986LDb	(98218)1300
					K(NdL+H)=4.56		

C18H34N2O8 H2L CAS 68670-15-5 (5851)
1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-di-(3-propanoic acid);

Nd+++ gl R4N.X 25°C 0.10M C K1=7.40 1988CCc (98341)1301

C18H34N4O9 H3L D03A-B (7301)
10-[2,3-Dihydroxy-(1-hydroxymethyl)-propyl]-1,4,7,10-tetraazacyclododecane-1,4,7-triethanoic ac.;

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
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Nd+++	cal	non-aq	25°C	100%	C	H	K1=14.74	2003DCa (98683)1303	
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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	
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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	
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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	
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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
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Nd+++	gl	KCl	25°C	0.1M	C			2002DGc (98881)1307	
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B(Nd3H-6L3)=-27.0

C18H40N2O10P2 H2L (7241)
1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diylldimethylenediphosphonic acid
bis(Et-ester);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Nd+++	gl	R4N.X	25°C	0.10M	U		K1=7.74	1996BJa (98896)1308	
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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
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Nd+++	gl	NaClO4	30°C	0.20M	U	M	K1=8.90	1978MSk (99111)1309	
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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
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Nd+++	gl	diox/w	30°C	75%	M	I		K1=9.67 B2=18.94	1987DGc (99166)	1310
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Medium: 75% v/v dioxan/H2O, 0.15 M NaClO4

C20H13N3O7S H3L Eriochrome B1 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
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Nd+++	gl	NaClO4	30°C	0.10M	U	M		K1=11.1 B2=20.55	1987SOa (99572)	1311
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K(NdA+L)=9.57
K(NdB+L)=8.21

H2A=hydroxyethyliminodiethanoic acid, H3B=nitritotriethanoic 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
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Nd+++	gl	alc/w	30°C	50%	C	M		K1=11.11 B2=20.68	1994SOa (99658)	1312
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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.

Nd+++	gl	NaClO4	30°C	0.10M	U	T H		K1=12.47	1991NNb (99659)	1313
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Also data for 40 and 50 C. DH and DS values.

Nd+++	sp	oth/un	?	?	U			K1=5.16	1972CBc (99660)	1314
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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
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Nd+++	gl	diox/w	30°C	50%	U			K1=10.49	1976NNa (99696)	1315
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Nd+++	sp	alc/w	?	98%	U				1968RAa (99697)	1316
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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
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Nd+++	sp	NaClO4	25°C	0.10M	C			K1=5.73	1979PLb (99713)	1317
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C20H14N2O11S3 H2L Hydroxynaphthol CAS 63451-35-4 (2835)
Hydroxynaphthol blue, 1-(2-Hydroxy-4-sulfo-1-naphthylazo)-2-naphthol-3,

Keff at pH 10

C20H18N4O2 HL (5917)
Pyruvic monohydrazone-3-hydrazino-4-benzyl-6-phenylpyridazine;

C20H24N2O6 H4L HBED CAS 3625-89-6 (2208)
N,N'-Di-(2-hydroxybenzyl)-diaminoethane-N,N'-diethanoic acid;

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

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''-disulf
acid;

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-Arsonodibenzoylmethanepherylhydrazone; 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(NdLC1)eff=8.178

B(NdL2C1)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;

C22H24N2O10 H4L CAS 132796-79-3 (8113)
1,2-Bis(2-aminophenoxy)ethane-N,N,N',N'-tetraethanoic acid;

Method: Competitive reaction with Hg^{++} , using Hg^0 indicator electrode.
Data for 15-35 C. $\text{DH}(\text{K1}) = -33.3 \text{ kJ mol}^{-1}$, $\text{DS}(\text{K1}) = 96.7 \text{ J K}^{-1} \text{ mol}^{-1}$.

C22H26N4O10 H4L BAPTA (7230)
1,2-Bis(o-aminophenoxy)ethane-N,N,N',N'-tetraethanoic acid;
(H₂OCCH₂)₂NCH(OC₆H₄NH₂)₂

C22H28O13S2 H2L DSDB21C7 CAS 204931-02-2 (7821)
2,3:11,12-Dibenzo-1,4,7,10,13,16,19-heptaoxacycloheptacos-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 B(NdHL)=15.04	2001WZa (102116)	1342

Also data for the N,N'-diethyl, isopropyl, butyl and isobutyl derivatives.

C22H37N5O14 H7L CAS 3234-59-1 (2425)
Tetraethylenepentamineheptaethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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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-methoxyethylcarbamoylethyl)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-Acetylphenylhydrazon)-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 K(NdL+H)=6.54	1998LCa (103020)	1350

C24H32O14S2 H2L CAS 204931-03-3 (7822)

2,3:11,12-Dibenzo-1,4,7,10,13,16,19,22-octaoxacyclotetracos-2,14-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=2.20	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 K(Nd+H2L)=16.21	1991KKa (103382)	1352

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-trioxacyclooctadecane-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'-tetraethanoic 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

C27H29N011 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;


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-----
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

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Medium: 75% v/v MeOH/H₂O, 0.10 M KCl.

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C27H36N4O12S3      H6L                      (7353)
Tris(((2-hydroxy-5-sulfobenzyl)amino)ethyl)amine;

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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.

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C28H24O16S4      H8L                      CAS 206559-10-6 (7767)
25,26,27,28-Tetrahydroxycalix[4]arene-5,11,17,23-tetrasulfonic acid;

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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

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Medium: 0.10 m Na₄H₄L, pH=2. DH(Nd+H₄L)=9.5 kJ mol⁻¹.

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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]

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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

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Medium: acetonitrile. Data for 20-35 C. DH(NdNO₃+L)=36.73 kJ mol⁻¹.

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C28H40N4O4      H2L                      CAS 138110-63-1 (8608)
7,14-Dimethyl-5,12-diphenyl-1,4,8,11-tetraazacyclotetradecane-1,8-diethanoic acid;

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-----
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

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C28H40O6      L                      CAS 29471-17-8 (1262)
2,3:11,12-Bis(4'-tert-butylbenzo)-1,4,7,10,13,16-hexaoxacyclooctadecane;

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-----
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.

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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"-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Nd+++	sp	oth/un	25°C	0.10M	U		K(Nd+H2L)=6.8	1967SSn (105483)	1370

Nd+++	sp	oth/un	25°C	?	U		K(?)=6.0	1962T0a (105484)	1371
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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		K(La(NO3)3+L)=4.01	1997KMa (105634)	1372

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			1993INa (106424)	1375
							B(Nd+3P+2L)=8.94		
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			1980NAb (106614)	1378
							K(Nd+H3L)=4.16		
							K(Nd+H2L)=6.36		
							K(NdH2L+H)=4.95		

Also data for NdHnL(OH) species

C52H69N07		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
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Nd+++	sp	non-aq	25°C	100%	C		K1=7.91	2002BBc (107516)	1379
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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)	
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1,4,8,11-Tetrakis(2-naphthalenylmethyl)-1,4,8,11-tetraazacyclotetradecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Nd+++	sp	mixed	25°C	50%	C		B2=14.0	2004SCa (107533)	1380
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B3=20.3

Method: fluorescence titration. Medium: 50% v/v CH3CN-CH2Cl2.

C62H94N20S2		L					(8109)		
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5,11,17,23-Tetrakis(1,1-dimethylethyl)-25-27-bis[2-methylthio]ethoxy]...calix(4)arene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Nd+++	cal	non-aq	25°C	100%	U	H	K1=4.59	2001NJa (107705)	1381
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Method: microcalorimetry. Medium: MeCN.. DH(K1)=-179 kJ mol⁻¹

C76H116N4O8		L					(8156)		
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p-tert-Butylcalix(4)arene tetradiisopropylethanoamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Nd+++	cal	non-aq	25°C	100%	U	H	K1=3.86	2001NJa (107882)	1382
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Method: microcalorimetry. Medium: MeCN.. DH(K1)=-91 kJ mol⁻¹

Polymer		HL					Bleomycin	(2324)	
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Bleomycin A2, B2 etc.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Nd+++	sp	oth/un	25°C	?	U			1980LPb (108092)	1383
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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