

SC-Database

Software version = 5.81 Data version = 4.62

Experiment list contains 2263 experiments for

(no ligands specified)

6 metals : Mn(0), Mn(VII), Mn+, Mn++, Mn+++, etc.

(no references specified)

(no experimental details specified)

CO L Carbon monoxide CAS 630-08-0 (551)

Carbon monoxide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn(0)	gl	none	20°C	0.0	U				1958Hwa (2811)	1
								K(MnL5+H)=7.1 K(HMnL5(s)=HMnL5)=-3.9		

Metal: Mn(0)

e- HL Electron (442)

Electron;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn(VII)	EMF	none	10°C	0.0	M				1967TLA (642)	2
								K(Mn(VI)+e)=4.6, 260 mV		

Mn(VI) to Mn(V)

Mn(VII)	EMF	none	25°C	0.0	U T				1964BSa (643)	3
								K=25.7(x=0.95,1520 mV) K=17.8(x=0.75,1050 mV) K=23.3(x=1,22 C) K=21.3(x=0.9,22 C) K=19.3(x=0.8,22 C), K=17.7(x=0.7,22 C),K=17.0(x=0.6,22 C) K: MnO2(s,x) + H + e = MnO1.5(s,1-x) + 0.5 H2O. Single solid phase.		

Mn(VII)	EMF	oth/un	25°C	?	U				1964JGb (644)	4
								K=11.09 (656 mV) K: Mn(CN)5NO-- +e = Mn(CN)5NO---. I=0, corr.: K=10.09,597mV		

Mn(VII)	EMF	none	25°C	0.0	U				1959GBa (645)	5
								K=85.15(beta-MnO2 1679 mV) K: MnO4+4H+3e=MnO2(s)+2H2O		

Mn(VII)	sp	none	25°C	0.0	U				1959JKa (646)	6
								K=-0.63 K: 2MnO4+MnO2(s)+40H=3MnO4(VI)+2H2O		

Mn(VII)	EMF	none	25°C	0.0	U				1956CSa (647)	7
								K(MnO4+e=Mn(VI)O4)=9.43(558mV)		

Mn(VII) EMF oth/un 25°C 6.0M U 1956CSa (648) 8
 $K(\text{Mn(VI)O}_4 + e) = 4.14, 285 \text{ mV}$
 Medium: 6-12 M KOH (Mn(VI) to Mn(V))

Mn(VII) oth none 25°C 0.0 U 1952LAB (649) 9
 $K = 9.53(564 \text{ mV})$
 $K' = 85.8(1695 \text{ mV})$
 $K'' = 127.4(1510 \text{ mV})$
 K: $\text{MnO}_4 + e = \text{MnO}_4(\text{VI})$. From thermodynamic data. Alternatively $K = 9.74(576 \text{ mV})$
 K' : $\text{MnO}_4 + 4\text{H} + 3e = \text{MnO}_2(\text{s}) + 2\text{H}_2\text{O}$. K'' : $\text{MnO}_4 + 8\text{H} + 5e = \text{Mn(II)} + 4\text{H}_2\text{O}$

Mn(VII) EMF none 25°C 0.0 U 1935ABb (650) 10
 $K = 29.83(588 \text{ mV})$
 K: $\text{MnO}_4 + 2\text{H}_2\text{O} + 3e = \text{MnO}_2(\text{s}) + 4\text{OH}$

Mn(VII) EMF oth/un 18°C 5.60M U I 1912STa (651) 11
 $K = 11.26(650 \text{ mV})$
 Medium: KOH. K: $\text{MnO}_4 + e = \text{MnO}_4(\text{VI})$. In 1.5 M KOH: $K = 10.62(613.5 \text{ mV})$

 C2H4O2S H2L Thioglycolic CAS 68-11-1 (596)
 Mercaptoethanoic acid; $\text{HS.CH}_2.\text{COOH}$

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn(VII)	vlt	oth/un	25°C	?	U	H	1990ASa (20343)	12	
							$K(\text{L} + \text{MnO}_4) = 3.29$		
DH = -14 kJ mol ⁻¹ . Alternative method: Spectrophotometry. At 15 C: $K = 3.08$; 35 C: 2.83; 45 C: 2.42									

C3H6O2S	H2L	Thiolactic acid	CAS 79-42-5	(366)					
2-Mercaptopropanoic acid; $\text{CH}_3.\text{CH}(\text{SH}).\text{COOH}$									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn(VII)	vlt	oth/un	25°C	?	U	H	1990ASa (25157)	13	
							$K(\text{L} + \text{MnO}_4) = 2.97$		
DH = -20.2 kJ mol ⁻¹ . Alternative method: Spectrophotometry. At 15 C: $K = 3.63$; 35 C: 2.35; 45 C: 1.80									

C4H6O4S	H3L	Thiomalic acid	CAS 70-49-5	(109)					
2-Mercaptosuccinic acid, 2-Sulfanyl-1,4-butanedioic acid; $\text{HOOC.CH}(\text{SH}).\text{CH}_2.\text{COOH}$									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn(VII)	vlt	oth/un	25°C	?	U		1990ASa (30345)	14	
							$K(\text{L} + \text{MnO}_4) = 3.76$		
At 15 C: $K = 4.30$; 35 C: 3.21; 45 C: 2.93									

CO	L	Carbon monoxide	CAS 630-08-0	(551)					

Carbon monoxide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn+	cal	non-aq	25°C	100%	U	HM			1992YYa	(2812) 15
Metal:Mn+. Medium:heptane. K:MnL2AB+L=MnL3A+B. A:C5H5. B:heptane. DH=-196 kJ mol-1. Data for other ligands										

e-		HL				Electron		(442)		
Electron;										

Mn++	vlt	oth/un	25°C	6.0M	U	I			1968PGe	(652) 16
K(Mn + Mn++++ = 2Mn+++)=1.63										
Medium: c M H2SO4. K=2.67(c=12),K=2.30(c=10.5),K=2.02(c=9),K=1.86(c=7.5), K=1.30(c=4.5)										
Mn++	EMF	none	15°C	0.0	U				1963JKa	(653) 17
K(Mn+2e=Mn(s))=-40.86(-1168mV)										
Mn++	oth	oth/un	25°C	var	U				1952LAb	(654) 18
K=-12(700 mV)										
Medium: KCN. K: Mn(CN)6+e=Mn(I)(CN)4+2CN. At I=0: K(Mn(OH)2(s)+2e=Mn(s)+2OH) =-52.6(-1550 mV)										

Mn++	oth	none	25°C	0.0	U				1952RWa	(655) 19
K'=59.34										
K': Mn3O4(s) + 8H + 2e = 3Mn++ + 4H2O.										

Mn++	EMF	oth/un	25°C	1.50M	U				1952TRa	(656) 20
K=-17.85(-1056 mV)										
Medium: NaCN. K: Mn(CN)6+e=Mn(I)(CN)6										

Mn++	oth	none	25°C	0.0	U				1948WAb	(657) 21
K=-40.0(-1182 mV)										

K: Mn+2e=Mn(s). From thermodynamic data

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

Mn++	oth	none	25°C	0.0	M				1997SAb	(1151) 22
Ks(Mn3(AsO4)2(s)+2H=3Mn+2HAsO4)=-8.51. Calculated from thermodynamic data										
Mn++	oth	oth/un	25°C	0.0	U				1990SAa	(1152) 23
*K(Mn3L2(s)+2H=3Mn+2HL)=-8.39										
Calculated from thermodynamic data.										

Mn++ sol oth/un 20°C dil U 1956CHc (1153) 24
Kso(Mn3L2)=-28.72

AsW11039----- H7L (2468)

alpha-Heteromonoarseno-polytungstate;

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

Mn++ gl NaNO3 25°C 1.00M U K1=3.61 1984COa (1178) 25

As2W17H2061----- H8L (2469)

alpha-Heteropolydiarseno-polytungstate;

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

Mn++ gl NaNO3 25°C 1.00M U K1=6.81 1984COa (1188) 26

K1=4.51 (alpha2 isomer)

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

Bromide;

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

Mn++ EMF non-aq 25°C 100% C T K1=2.85 B2= 4.81 2001JMb (2122) 27

K3=1.26

Medium: acetic acid, 0.1 M LiBr. Method: Ag/AgBr/Br- electrode

At 60 C: K1=2.62, K2=1.28.

Mn++ cal non-aq 25°C 100% C HM 2000KYa (2123) 28

B(Mn(phen)Br)=6.94

B(Mn(phen)Br2)=7.87

B(Mn(phen)2Br)=10.46

B(Mn(phen)2Br2)=11.84

Medium: DMF, 0.16 M Et4NClO4. DH(Mn(phen)Br)=-8.0 kJ mol-1,

DH(Mn(phen)Br2)=15.4, DH(Mn(phen)2Br)=-27.6, DH(Mn(phen)2Br2)=-19.8.

Mn++ cal non-aq 25°C 100% U HM 1997KYb (2124) 29

B(Mn(bpy)Br)=3.89

B(Mn(bpy)Br2)=5.24

B(Mn(bpy)2Br)=5.06

Medium: DMF, 0.16 M Et4NClO4. DH(Mn(bpy)Br)=3.3 kJ mol-1,

DH(Mn(bpy)Br2)=16.9, DH(Mn(bpy)2Br)=-3.6.

Mn++ sp non-aq 25°C 100% U H K1=1.91 19900Ia (2125) 30

B3=4.15

Medium: DMF, 0.16 M R4NClO4. DH(K1)=14.1 kJ mol-1, DH(B3)=74 by calorimetry

Mn++ cal KNO3 25°C 0.50M U H 1985BPb (2126) 31

B4=-7.2

DH(B4)=39.4 kJ mol-1; TDS(B4)=-1.7 kJ mol-1

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Mn++      EMF oth/un 25°C 1.50M U I      K1=-1.1      1978LKd (2127) 32
K1 defined in molality (Moles per kg) terms: K1=m(MnBr)/m(Mn).m(Br), ionic
strength in m(Mn(ClO4)2). K1 (m): -1.05 (2.0), -0.9 (2.5), -0.7 (3.0)
-----
Mn++      sol NaClO4 25°C 1.00M U I      K1=-0.35 B2=-0.55 1975FKa (2128) 33
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Mn++      kin NaClO4 25°C 1.0M U      K1=0.13      1973HHb (2129) 34
-----
Mn++      nmr non-aq 20°C 100% U      1970BMD (2130) 35
K(Li+MnL4)=1.23
K(Me4N+MnL4)=1.93
K(Et4N+MnL4)=1.30
K(Bu4N+MnL4)=0.90

Medium: MeCN. Method: esr
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Mn++      ix NaClO4 20°C 0.69M U      K1=0.27 B2=0.01 1968FMb (2131) 36
Method:cation exchange. Medium: HClO4
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Mn++      nmr alc/w ? 100% U      K1=1.0      1968LLa (2132) 37
Medium: MeOH, LiBr. Method: esr
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CN-              HL      Cyanide              CAS 74-90-8 (230)
Cyanide;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl NaClO4 25°C 1.00M U      K1=1.88 B2=3.36 1987ABd (2736) 38
-----
Mn++      cal oth/un 25°C var U H      1964GHc (2737) 39
DH(B6)=-144.2 kJ mol-1
-----
Mn++      cal oth/un 25°C ? U H      1961GUa (2738) 40
DH(B6)=-150.6 kJ mol-1
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Mn++      EMF oth/un 25°C var U      1952TRa (2739) 41
Ks(K5(MnL6)(s))=-10.6
Ks(Na5(MnL6)(s))=ca.-0.3
*****
CO              L      Carbon monoxide CAS 630-08-0 (551)
Carbon monoxide;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Mn++      cal non-aq 25°C 100% U HM      1992HSb (2813) 42
Metal:Mn+. Medium:heptane. K:MnL2AB+L=MnL3A+B. A:C5H5. B:heptane.
DH=-196 kJ mol-1.
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Mn++      EMF non-aq 22°C 100% U      1992PMa (2814) 43
K(Mn2L10=2Mn5L5)=-20.62

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Metal:Mn(0). Medium: MeCN, 0.1 M Bu4PF6. Monomer-dimer equilibrium

C03-- H2L Carbonate CAS 465-79-6 (268)

Carbonate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	sol	NaCl	25°C	0.0	C		K1=4.8 Kso(MnCO3)=-10.3	2003LMa (3268)	44
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Solubility of rhodochrosite in 0.068-5.015 m NaCl at constant p(CO2), pH 6-8. Kso in terms of total C03--. At I=0.70 m, Kso=-10.31, *Kso=-8.65.

Mn++	sol	none	25°C	0.0	C T		K1=4.97 K(Mn+HCO3)=2.2 Kso(MnCO3)=-12.19 K(Mn+OH+CO3=Mn(OH)CO3)=8.22 K(MnCO3(s)+2H=Mn+H2CO3)=4.49	1996WKa (3269)	45
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Calculated from solubility of MnCO3 (rhodochrosite) in carbonate media. Data for 25-200 C. K(MnCO3(s)+H)=MnHCO3=0.36; K(MnCO3(s)=MnCO3)=-7.21.

Mn++	sol	NaCl04	25°C	3.00M	C		K1=3.54 K(Mn+HL=MnHL)=0.32 Kso(MnL)=-9.78	1994NNa (3270)	46
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Also available: Data from EMF measurements: K(Mn+H2O+CO2(g)=MnHL+H)=-7.56

Mn++	oth	none	50°C	0.0	M T		K(Mn+HCO3)=1.43	1990BUB (3271)	47
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Calculated from standard state functions at 25 C using isocoulombic approach. Values for 50-300 C.

Mn++	sol	oth/un	RT	0.72M	C H		Kso(MnCO3)=-11.24	1990WSb (3272)	48
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Medium: seawater. Method: ETAAS. DH(Kso)=6.1 kJ mol-1.

Mn++	sp	NaCl04	25°C	0.01M	C TIH		K(Mn+HCO3)=1.36	1985EFa (3273)	49
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Data for 25-45 C and 0.0012-0.05 M NaCl04.

DH(Mn+HCO3)=9.2 kJ mol-1.

Mn++	oth	oth/un	25°C	0.0	C H		K1=4.10 K(Mn+HCO3)=1.95	1984FCa (3274)	50
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K(Mn+HCO3) calc using electrostatic model. K1 from oxalate correlation. DH(K1)=1.9 kJ mol-1, DH(Mn+HCO3)=6.7 (from DS calc by electrostat model)

Mn++	sol	none	25°C	0.0	C		Kso(MnCO3)=-10.59	1982J0a (3275)	51
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Method: solubility in H2O, seawater and NaCl. MnO3 is rhodochrosite.

In seawater, 34.27‰: at 25 , Kso=-8.49; at 3.3C, Kso=-8.64

Mn++	kin	oth/un	25°C	0.10M	U		K1=1.04 B2=1.74	1981SPa (3276)	52
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Mn++ gl none 5°C 0.0 M T H 1978L Ba (3277) 53
K(Mn+HL)=1.261
DH=4.10 kJ mol⁻¹, DS=38.0 J K⁻¹ mol⁻¹. At 10 C: K(Mn+HL)=1.242; 15 C: 1.233;
25 C: 1.275; 40 C: 1.333; 55 C: 1.385

Mn++ gl NaCl04 25°C 3.00M U 1970G Ka (3278) 54
K(Mn+HL)=0.45
*Kpso=7.97
*Kpso: MnCO₃(s)+2H=Mn+CO₂(g)+H₂O

Mn++ sol none 25°C 0.0 U 1963H Ea (3279) 55
K(Mn+HL)=1.8
Ks(MnCO₃(s))+H=Mn+HCO₃=0.0

Mn++ EMF NaCl 25°C 0.29M U 1942N Ac (3280) 56
K(Mn+HL)=3.52

Mn++ sol oth/un 25°C dil U 1935K Aa (3281) 57
Kso(MnCO₃(s))=-9.41

Mn++ oth none 25°C 0.0 U 1935K Aa (3282) 58
Kso(MnCO₃(s))=-9.30
+Kpso=-6.80
From thermodynamic data. +Kpso: MnCO₃(s)+CO₂(g)+H₂O=Mn+2HCO₃

Mn++ sol oth/un 18?°C ? U 1930R Aa (3283) 59
Kso(MnCO₃(s))=-10.06

Mn++ sol oth/un 25°C var U 1911A Va (3284) 60
Kso(MnCO₃(s))=-10.74

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	con	oth/un	25°C		U T		1972B Me (3589) 61		
							K(K ₂ Mn ₃ L ₂ (s)=2K+3Mn+2L)=-29.5		
							K's(K ₈ Mn ₆ L ₅)=-64.6		
							35 C: Ks=-30.0; K's=-63.6. 45 C: Ks=-29.5; K's=-63.3		

Mn++ vlt oth/un 25°C dil U 1961B Sb (3590) 62
Kso(Mn₂L)=-13.33 ?

Mn++ sol oth/un 25°C var U 1956T Gb (3591) 63
Kso(Mn₂L)=-12.10

C₆N₆Fe--- H₃L Ferricyanide (2491)
Hexacyanoferrate (III); Fe(III)(CN)₆---

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++       sol NaClO4 25°C 1.00M U I                      1974FRe (3677) 64
                                     Kso=-14.26
Kso=-15.10(I=0.1), -14.70(I=0.2), -14.28(I=0.5), -15.25(I=2.0),
-16.55(I=3.0), -18.55(I=4.0). I=0(corr): Kso=-18.2
*****
Cl-         HL      Chloride          CAS 7647-01-0 (50)
Chloride;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Mn++       cal non-aq 25°C 100% C HM                      2000KYa (5209) 65
                                     B(Mn(phen)Cl)=8.43
                                     B(Mn(phen)Cl3)=13.50
                                     B(Mn(phen)Cl2)=11.29
                                     B(Mn(phen)2Cl)=12.10
B(Mn(phen)2Cl2)=15.11. Medium:DMF, 0.4 M Et4NClO4. DH(Mn(phen)Cl)=
-16.2 kJ mol-1, DH(Mn(phen)Cl2)=-7.7, DH(Mn(phen)Cl3)=-4.7.
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Mn++       cal non-aq 25°C 100% U HM                      1997KYb (5210) 66
                                     B(Mn(bpy)Cl)=6.17
                                     B(Mn(bpy)Cl2)=9.12
                                     B(Mn(bpy)2Cl)=7.32
                                     B(Mn(bpy)2Cl2)=10.17
Medium: DMF, 0.4 M Et4NClO4. DH(Mn(bpy)Cl)=-7.3 kJ mol-1,
DH(Mn(bpy)Cl2)=1.9, DH(Mn(bpy)2Cl)=-18.6, DH(Mn(bpy)2Cl2)=-16.4.
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Mn++       sol none 25°C 0.0 M T H K1=-0.61 1996GSb (5211) 67
Method: solubility of AgCl in HCl (0.01-6.0 M)/MnCl2 solutions at 25-300 C
At 25 C, DH(K1)=27 kJ mol-1, DS(K1)=79 J K-1 mol-1.
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Mn++       cal non-aq 25°C 100% U T H K1=4.1 B2=8.0 1993SKb (5212) 68
                                     B3=12.3
                                     B4=14.4
Medium: N,N-dimethylacetamide 0.1 M R4NX; also by spectroscopy. DH(K1)=18.6
kJ mol-1, DH(B2)=34, DH(B3)=21, DH(B4)=4. Constants also at 45 C
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Mn++       oth none 50°C 0.0 M T K1=0.50 B2= 0.67 1990BUb (5213) 69
                                     B3=1.28
Calculated from standard state functions at 25 C using isocoulombic
approach. Values for 50-300 C.
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Mn++       sp non-aq 25°C 100% U H K1=2.20 B2=3.3 1990SIa (5214) 70
                                     B3=5.2
                                     B4=6.69
Medium: DMSO, 0.4 M Et4NBF4. By colorimetry, DH(K1)=6.2 kJ mol-1, DH(B2)=29,
DH(B3)=44, DH(B4)=44.4
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Mn++	cal non-aq 25°C 100%	U	H	K1=3.69 B2=6.09 B3=10.02 B4=12.63	1988IOa (5215)	71
In N,N-dimethylformamide. Bn values also by calorimetry. DH(K1)=1.1 kJ mol ⁻¹ DH(B2)=26.7; DH(B3)=31.8; DH(B4)=21.3						
Mn++	ISE non-aq 25°C 100%	U		K1=2.83	1988SGa (5216)	72
Medium: DMSO, 0.1 M Et4NCl						
Mn++	nmr none	0.0	C T H		1988WCb (5217)	73
Method: esr. Data for 50-170C. DH(K1)=23 kJ mol ⁻¹ , DS(K1)=80 J K ⁻¹ mol ⁻¹ .						
Mn++	sp non-aq 25°C 100%	U		K1=4.53	1986GPa (5218)	74
Medium: N,N-dimethylformamide						
Mn++	sp non-aq 25°C 100%	U	I	K1=3.24	1982LPa (5219)	75
Medium: DMSO, 0.2 M M(ClO4)2						
Mn++	EMF R4N.X 18°C 1.15M	U		K1=-0.09 B2=-0.41 K3=-0.63	1977KUa (5220)	76
Mn++	sol NaClO4 25°C 1.00M	U	I	K1=-0.09 B2=-0.52	1975FKa (5221)	77
Mn++	gl none 25°C 0.0	U		K1=-0.14	1975LTa (5222)	78
Mn++	ISE NaClO4 25°C 1.0M	U		K1=0.04	1974BLb (5223)	79
Mn++	kin NaClO4 25°C 1.0M	U		K1=-0.33	1973HHb (5224)	80
Mn++	nmr alc/w 25°C 11%	U	I	K1=0.30	1971BWb (5225)	81
Med 11% MeOH/H2O. K1=0.20(0%), 0.49(26%), 0.92(43%), 1.20(54%), 1.34(67%), 1.82(x=80), 2.74(x=100). Method: esr						
Mn++	nmr alc/w -20°C 100%	U	T H	K1out=0.95 K1in=1.00 K(Et4N+MnCl4)=1.15	1970BMd (5226)	82
Medium: MeOH. DH(K1out)=10.0 kJ mol ⁻¹ ; K1out=1.26(20 C), 1.48(60 C). DH(K1in)=8.4. K1in=1.24(20 C), 1.45(60 C). Method: esr						
Mn++	nmr non-aq 25°C 100%	U	T H	K1=3.81	1969BHe (5227)	83
Medium: DMF. DH(K1)=-5.02. Method: esr						
Mn++	nmr alc/w ? 100%	U		K1 > 2.0	1968LLa (5228)	84
Medium: MeOH, LiCl						
Mn++	oth oth/un 25°C 0.0	M		K1=0.1	1966MBb (5229)	85
Mn++	vlt NaClO4 ? 1.50M	U		K1=0.04	1962TCa (5230)	86

Mn++ ix NaClO4 20°C 0.69M U K1=0.59 B2=0.26 1961MSb (5231) 87
B3=-0.36

Mn++ con none 25°C 0.0 U K1=0 1947JAa (5232) 88

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

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

Mn++ cal oth/un 25°C 1.00M U H 1975ARa (6047) 89
DH(K1)=-5.21 kJ mol⁻¹. DS = -22.6 J K⁻¹ mol⁻¹. Medium: 1.0 M NaClO3

Mn++ kin NaClO4 25°C 1.0M U K1=-0.27 1973HHb (6048) 90

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

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

Mn++ con non-aq 25°C 100% U K1=1.28 1981LGA (6322) 91
Medium: DMSO; K1 in DMSO/benzene (mole fraction 0.3)=1.86

Mn++ nmr alc/w 20°C 100% U 1970BMd (6323) 92
K1out=-0.3
K1in=-0.4

Medium: MeOH. Method: esr. In DMSO: K1out=-0.3, K1in=-0.5. In DMF: K1out=0.4
K1in=-0.7. DH(K1in)=13 kJ mol⁻¹

Mn++ nmr alc/w ? 100% U K1=0.0 1968LLa (6324) 93
Medium: MeOH, LiClO4. Method: esr

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

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

Mn++ ISE R4N.X 25°C 0.05M U I K1=1.38 1983SBa (7015) 94
Medium: 0.05 M Et4NF. In MeOH, 0.05 Et4NF, K1=3.48

Mn++ ISE NaClO4 25°C 1.00M U I K1=1.2 1981KBb (7016) 95

Mn++ ISE NaClO4 25°C 3.00M U K1=1.00 1976KBa (7017) 96

Mn++ cal oth/un 25°C 0.50M U H K1=0.59 1974ARc (7018) 97
DH(K1)=13.6 kJ mol⁻¹, DS=57 J K⁻¹ mol⁻¹

Mn++ cal NaNO3 25°C 0.50M U H 1974ARE (7019) 98
DH(K1)=13.6 kJ mol⁻¹; DS=56.9 J K⁻¹ mol⁻¹

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-----
Mn++      ISE NaCl04 25°C  1.0M U      K1=0.62      1972BHc (7020) 99
-----
Mn++      vlt none  25°C  0.0 U      K1=5.52      B2=9.04      1969GSf (7021) 100
                                     B3=11.64
                                     B4=13.4
                                     B5=14.7
                                     B6=15.5
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Mn++      EMF NaCl04 25°C  1.0M U      K1=0.79      1965CGc (7022) 101
Methods: H and quinhydrone electrodes

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FClBrI          HL          (541)
Halides, comparative (for book data under ligand 80)
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      nmr oth/un 22°C  0.0 U      K1out=0.18(F)
                                     K1out=-1.05(Cl)
                                     K1out=-1.35(Br)
                                     K1out < -2(I)

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Method: esr

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GeW11039----- H8L          CAS 37369-86-1 (2466)
alpha-Heteromonogermanium-polytungstate;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  NaNO3  25°C  1.00M U      K1=5.91      1984COa (7470) 103
Alternative method: Spectrophotometry. Medium: LiNO3

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I-          HL      Iodide          CAS 10034-85-2 (20)
Iodide;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      vlt non-aq 25°C  100% U      K1=3.5       B2=5.6       1972MAc (8245) 104
                                     B3=7.8
                                     B4=10.0
                                     B5=12.2
                                     B6=14.4

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Medium: MeCN, 0.1 M Et4NCl04

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NH3          L      Ammonia          CAS 7664-41-7 (414)
Ammonia
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      cal oth/un 25°C  0.5M U      K1=1.15      2003PKa (9180) 105

```

Medium: NH₄NO₃. DH(K₁)=-6.11 kJ mol⁻¹

Mn++ gl alc/w 25°C 2.0M U I K₁=1.23 B₂= 2.03 1992MPb (9181) 106
K₃=0.55
for 100% H₂O K₁=0.96
for 100% H₂O K₂=0.52
for 100% H₂O K₃=0.25

Medium: 2.0 M NH₄NO₃ in 50% v/v EtOH in H₂O

Mn++ cal oth/un 25°C 2.0M C K₁=1.0 B₂= 1.60 1992MPc (9182) 107
K₃=0.3
K₄=-0.01
K₅=-0.3
K₆=-0.7

Medium: 2.0 M NH₄NO₃;

Corresponding DH: -5.2; -4.8; -5.2; -5.0; -4.8; -5.0 kJ mol⁻¹

Mn++ gl diox/w 25°C 2.0M U K₁=1.30 B₂= 2.10 1992MSc (9183) 108
K₃=0.57
K₁=0.96 (100%H₂O)
K₂=0.52(100% H₂O)
K₃=0.25 (100%H₂O)

Medium: NH₄NO₃ in 50% v/v dioxane/H₂O; for 20% K₁=1.09; K₂=0.69, K₃=0.43

For 2 M NH₄NO₃ in50%v/v acetone/H₂O K₁=1.25; K₂=0.82; K₃=0.55

Mn++ gl R4N.X 25°C 5.00M U K₁=0.8 1985MMa (9184) 109

Mn++ gl NaNO₃ 25°C 0.10M A M K₁=1.27 1982SSa (9185) 110
K(Mn(ATP)+L)=1.01

Mn++ EMF mixed 25°C 43% U K₁=1.30 B₂=1.90 1973LGb (9186) 111
K₃=0.48
K₄=-0.30

Medium: w% t-BuOH, 0.4 M NH₄Cl. When w=0%, values:0.90, 0.67, -0.40, 0.30.

w=8%: 1.08, 0.60, -0.30, 0.40. w=25%: 1.00, 0.81, 0.23, -0.30

Mn++ gl R4N.X 20°C 2.0M U K₁=1.00 B₂=1.54 1972KBc (9187) 112
K₃=0.16
K₄=-0.4

Medium:NH₄NO₃

Mn++ vlt oth/un ? var U B₆=9(?) 1925BRb (9188) 113

NH₃O L Hydroxylamine; CAS 5470-11-1 (1808)
Hydroxylamine; NH₂.OH

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

Mn++ EMF KNO₃ 25°C 1.0M U K₁=4.04 B₂=7.56 1974ISa (9266) 114

K3=3.28

K4=3.16

Mn++ gl NaNO3 20°C 0.50M U K1=0.5 1963SZa (9267) 115

N02- HL Nitrite CAS 7782-77-6 (635)
 Nitrite;

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

Mn++ gl NaClO4 25°C 1.0M U K1=0.45 1990ERb (9387) 116

N03- HL Nitrate CAS 7697-37-2 (288)
 Nitrate;

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

Mn++ sp oth/un 15°C 1.00M U T K1=-0.676 1978MMf (9766) 117
 At 20 C: K1=-0.723; 25 C: -0.772; 30 C: =0.804

Mn++ cal NaNO3 25°C 1.00M U H 1975ARa (9767) 118
 DH(K1)=-4.74 kJ mol⁻¹. DS = -18.8 J K⁻¹ mol⁻¹.

Mn++ sol NaClO4 25°C 0.50M U I K1=-0.38 B2=-0.30 1974FRe (9768) 119
 K1=-0.43, B2=-0.70(I=1). K1=-0.41, B2=-0.92, B3=-1.3(I=2). K1=-0.24,
 B2=-0.77(I=3). K1=-0.14, B2=-0.72, B3=-1.2(I=4). K1=0.20, B2=0.60(I=0 corr)

Mn++ kin NaClO4 25°C 1.0M U K1=-0.15 1973HHb (9769) 120

Mn++ nmr non-aq 20°C 100% U T H 1970BMD (9770) 121

K1out=0.60

K1in=0.51

Medium:Me2NCHO. K1out=0.98(60C), 1.30(100C), DHout=17 kJ mol⁻¹
 K1in=0.93(60C), 1.24(100C), DHin=18 kJ mol⁻¹

Mn++ nmr alc/w ? 100% U K1=0.7 1968LLa (9771) 122
 Medium MeOH, LiNO3 var

Mn++ oth mixed 23°C 90% U K1=0.46 B2=0.36 1966WFa (9772) 123
 Medium: 90% i-PrOH, 0.5 M HL

N2H4 L Hydrazine CAS 302-01-2 (2117)
 Hydrazine; H2N.NH2

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

Mn++ gl NaClO4 30°C 1.0M U K1=4.76 1967BSb (10082) 124

Mn++ vlt oth/un 25°C var U K1=1.93 1962CMc (10083) 125

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaClO4	25°C	1.00M	U		K1=0.63 B2=0.29	1980GAa (10241)	126

OH- HL Hydroxide (57)
Hydroxide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	sol	none	25°C	0.0	C T			1996WKa (11727)	127

*B2=-18.54
Calculated from solubility of MnCO3 (rhodocrosite) in carbonate media.
Data for 25-200 C. $K(\text{MnCO}_3(\text{s}) + 2\text{OH} = \text{Mn}(\text{OH})_2 + \text{CO}_3) = -2.73$

Mn++	gl	NaClO4	30°C	0.10M	C		K1=5.68	1995STa (11728)	128
Mn++	oth	none	50°C	0.0	M T		K1=3.45 B2= 5.94 B3=7.52 B4=8.29	1990BUb (11729)	129

Calculated from standard state functions at 25 C using isocoulombic approach. Values for 50-300 C.

Mn++	gl	KNO3	25°C	0.10M	U	M		1979GMa (11730)	130
------	----	------	------	-------	---	---	--	-----------------	-----

*K(Mn(EDDA))=-11.5

Mn++	EMF	NaClO4	25°C	0.01M	U	H		1969WSc (11731)	131
------	-----	--------	------	-------	---	---	--	-----------------	-----

DH(K1)=144.3 kJ mol⁻¹, DS=669 J K⁻¹ mol⁻¹

Mn++	EMF	oth/un	25°C	1.00M	U			1968FBa (11732)	132
------	-----	--------	------	-------	---	--	--	-----------------	-----

*K1=-10.5
*B(2,1)=-9.9
*B(2,3)=-25.4

Medium: 1 M Na2SO4. Method: H electrode

Mn++	gl	none	25°C	0.0	U T			1962PEa (11733)	133
------	----	------	------	-----	-----	--	--	-----------------	-----

*K1=-10.59
*K1=-10.93(15 C), -10.76(20 C), -10.38(30 C), -10.19(36 C), -10.10(42 C)

Mn++	vlt	none	22°C	0.0	U			1956K0c (11734)	134
------	-----	------	------	-----	---	--	--	-----------------	-----

Kso(Mn(OH)2)=-12.35

Mn++	gl	KCl	30°C	0.10M	U			1952CCa (11735)	135
------	----	-----	------	-------	---	--	--	-----------------	-----

*K1=-10.6

Mn++	EMF	none	25°C	0.0	C			1942NAC (11736)	136
------	-----	------	------	-----	---	--	--	-----------------	-----

Kso(Mn(OH)2)=-12.72

Mn++ sol none 25°C 0.0 U 1941FSa (11737) 137
 *Kso=15.20
 $K(\text{Mn}(\text{OH})_2(\text{s}) + \text{OH} = \text{Mn}(\text{OH})_3) = -5.0$
 $K_{\text{so}}(\text{Mn}(\text{OH})_2(\text{s})) = -12.80$
 B3=7.8

Mn++ gl oth/un 25°C dil U 1938OKa (11738) 138
 $K_{\text{so}}(\text{Mn}(\text{OH})_2) = -12.9$

Mn++ EMF oth/un 18°C var C 1925BRa (11739) 139
 $K_{\text{so}}(\text{Mn}(\text{OH})_2) = -13.89$

Method: H electrode

Mn++ kin oth/un 100°C 0.25M U K1=2.83 1913KUa (11740) 140
 *K1=-9.54

Mn++ con oth/un 18°C dil U 1909SFa (11741) 141
 $K_{\text{so}}(\text{Mn}(\text{OH})_2) = -13.40$

Mn++ sol oth/un rt var U 1900HEa (11742) 142
 $K_{\text{so}}(\text{Mn}(\text{OH})_2) = -12.1$

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

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
 Mn++ gl NaNO3 25°C 0.10M M 1996SSa (13243) 143
 $K(\text{Mn}+\text{HL}) = 2.45$

Mn++ nmr oth/un 25°C ? U M 1985MGa (13244) 144
 $K(\text{Mn}(\text{trien})+\text{L}) = 2.08$

Mn++ vlt NaClO4 25°C 0.50M U 1973NMB (13245) 145
 $K(\text{Mn}+\text{HL}) = 2.9$
 $K(\text{Mn}+2\text{HL}) = 4.2$

Mn++ sol oth/un 25°C 0.01M U 1966GMb (13246) 146
 $K(\text{MnHL}(\text{s}) = \text{Mn}+\text{HL}) = -12.86$

Mn++ gl R4N.X 25°C 0.20M U 1956SAa (13247) 147
 $K(\text{Mn}+\text{HL}) = 2.58$

Medium: Pr4NC1

 PW11039----- H7L (2467)
 alpha-Heteromonophospho-polytungstate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
 Mn++ gl NaNO3 25°C 1.00M U K1=4.41 1984COa (13404) 148

P207---- H4L Pyrophosphate CAS 2466-09-3 (198)
Diphosphate; from (HO)2PO.O.PO(OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	R4N.X	25°C	0.20M	U	T H	K1=6.40 B2= 8.81 K(Mn+HP207)=3.65	1979MFb (13620)	149

Medium: Me4NBr, 0.20 M. Data for 5-35 C.

By calorimetry: DH(K1)=46 kJ mol⁻¹.

P2W17061----- Polytungstate (2102)
alpha-Heterodiphospho-polytungstate (usually alpha1 isomer)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	1.00M	U		K1=6.34 K1=5.05 (alpha2 isomer)	1984COa (13725)	150

P3010----- H5L CAS 10380-08-2 (1001)
Tripolyphosphate; from (HO)2PO.O.PO(OH).O.PO(OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	U	T H	K1=6.20 K(Mn+HL)=4.30	1973TRa (13880)	151
At 2 C: K1=7.12, K(Mn+HL)=3.90; 35 C: K1=7.11, B=4.51 DH(K1)=-25.1, DH(Mn+HL)=0 kJ mol ⁻¹ (25C)									
Mn++	gl	KNO3	45°C	0.10M	U		K1=6.31 B2=8.31 K(Mn+HL)=4.07 K(MnL+HL)=2.9 K(MnL2+H)=9.03	1971TRa (13881)	152
Mn++	gl	R4N.X	20°C	0.10M	U	H	K1=8.04 K(Mn+HL)=5.08 K(MnL+H)=5.86	1965ANa (13882)	153

Medium: Me4NNO3. By calorimetry: DH(K1)=11.7 kJ mol⁻¹, DS=194 J K⁻¹ mol⁻¹

Mn++	gl	KCl	25°C	0.10M	U		K1=7.21 K(Mn+HL)=3.77 K(MnL+H)=4.62	1964EMb (13883)	154
------	----	-----	------	-------	---	--	---	-----------------	-----

P309--- H3L CAS 13566-25-1 (235)
Cyclotrimetaphosphate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	con	none	25°C	0.0	U		K1=3.57	1949JMa (13963)	155

P4012---- H4L CAS 13598-74-8 (234)
Cyclotetrametaphosphate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	con	none	25°C	0.0	U		K1=5.74	1950JMb (14012)	156

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	vlt	oth/un	25°C	0.72M	C	I		1999AVb (14408)	157

K(Mn+HL)=4.5
K(Mn+2HL)=9.9

Method: determination of free S-- by cathodic stripping voltammetry.
Medium: seawater, pH 8.0, S=35. Also data for S=21 and 10.5.

Mn++	vlt	NaCl04	24°C	0.50M	C	I	K1=5.60 B(Mn2(S5))=11.43	1999CRb (14409)	158
------	-----	--------	------	-------	---	---	-----------------------------	-----------------	-----

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

Mn++	vlt	NaCl	25°C	?	U		K1eff=6.7	1994ZMa (14410)	159
------	-----	------	------	---	---	--	-----------	-----------------	-----

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

Mn++	oth	none	?	0	U			1990DKa (14411)	160
------	-----	------	---	---	---	--	--	-----------------	-----

*Ks(MnS(green)+H=Mn+HS)=0.17
*Ks(MnS(pink)+H=Mn+HS)=3.34

From recalculation of literature data.

Mn++	oth	none	25°C	0.0	C		K(Mn+HS=MnS+H)=-2.1	1989DYa (14412)	161
------	-----	------	------	-----	---	--	---------------------	-----------------	-----

Calculated from literature data, based on K(H+S)=17.0.

Mn++	oth	none	25°C	0	U		Kso(MnS,green)=-17.8 *Kso(MnS,green)=0.4 Kso(MnS,pink)=-14.7 *Kso(MnS,pink)=2.6	1988LIa (14413)	162
------	-----	------	------	---	---	--	--	-----------------	-----

Derived from thermodynamic data and K(H+S=HS)=17.3.

Mn++	dis	oth/un	25°C	0.69M	U		K(Mn+2H2S=MnHS2+3H)=-13.85 K(Mn+2H2S=Mn(HS)2+2H)=-7.56	1985DYa (14414)	163
------	-----	--------	------	-------	---	--	---	-----------------	-----

Mn++	sol	NaCl04	25°C	3.0M	U		*Kso(a-MnS(s))=7.27	1967GRa (14415)	164
------	-----	--------	------	------	---	--	---------------------	-----------------	-----

Mn++	oth	none	25°C	0.0	U			1964PCa (14416)	165
------	-----	------	------	-----	---	--	--	-----------------	-----

From thermodynamic data. MnL pink. K=8.4(green)

From thermodynamic data. $K_{so} = -11.97(100\text{ C})$, $-11.32(200\text{ C})$, $-10.84(400\text{ C})$, $-10.45(600\text{ C})$

SCN- Thiocyanate;	HL	Thiocyanate	CAS 463-56-9	(106)
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$B(\text{Mn}(\text{phen})_2(\text{SCN})_2) = 11.56$. Medium: DMF, 0.4 M Et_4NClO_4 . $\text{DH}(\text{Mn}(\text{phen})\text{SCN}) = -15.9 \text{ kJ mol}^{-1}$, $\text{DH}(\text{Mn}(\text{phen})(\text{SCN})_2) = -20.2$, $\text{DH}(\text{Mn}(\text{phen})(\text{NCS})_3) = -25.0$.

Medium: DMF, 0.4 M Et4NClO4. B(Mn(bpy)2(SCN)2)=6.94. DH(Mn(bpy)SCN)=-7.7, DH(Mn(bpy)(SCN))=-11.7, DH(Mn(bpy)(SCN)3)=-15.5 kJ m-1.

Medium: N,N-Dimethylformamide, 0.4 M Et₄NClO₄. DH(K1)=-1.0, DH(K2)=-1.6, DH(K3)=9.3, DH(K4)=8.6 kJ mol⁻¹. DS(K1)=40 J K⁻¹ mol⁻¹.

$$\Delta H(K1) = -13.8 \text{ kJ mol}^{-1}; K1 = 1.07(35 \text{ } ^\circ\text{C}), 0.99(45 \text{ } ^\circ\text{C})$$

Medium: MeOH. Method: esr

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-----
Mn++      EMF oth/un 35°C  0.0  U      K1=1.57      1968PRd (15146) 175
-----
Mn++      cal oth/un 25°C  0.0  U  H      K1=1.23      1967NTa (15147) 176
Medium: 0 corr.  DH(K1)=-3.8 kJ mol-1, DS=10.5 J K-1 mol-1
-----
Mn++      sol oth/un 20°C   ?  U      B3=3.78      1967STb (15148) 177
-----
Mn++      dis NaCl04 20°C 1.50M U      T K1=0.73  B2=1.30  1964TCa (15149) 178
Kd(Mn+2L=MnL2(MeCOi-Bu))=-0.07
-----
Mn++      vlt NaCl04 25°C 2.30M U  I  T K1=0.72      1963TCb (15150) 179
K1=0.73(I=1.5), 0.80(I=0.7), B2=1.85(I=1.5)
-----
Mn++      oth oth/un   ?   var  U      K1=0.64      1962FLa (15151) 180
Method: ir
-----
Mn++      sp none  23°C  0.0  U      K1=1.23      1958YKa (15152) 181
*****
SO2          L      Sulfur dioxide      (6336)
Sulfur dioxide;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      nmr oth/un 24°C  var  U  T      K1out=1.20
K1in=0.60
Ligand:Dithionite(S204)2-. At 40 C: K1out=1.34, K1in=0.45
-----
Mn++      nmr oth/un 20°C  var  U  T  H      K1out=1.18
K1in=0.62
Ligand:Dithionite(S204)2-.K1out=1.34(40 C),1.49(60 C),1.62(80 C),1.74(100 C)
K1in=0.45(40 C),0.3(60 C),0.16(80 C),0.04(100 C). DH(out)=14.6, DH(in)=-15.1
*****
SO3--      H2L      Sulfite      CAS 7782-99-2 (801)
Sulfite;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      EMF NaCl  25°C 0.00  U  I      K1=3.00      1991RZb (15466) 184
*****
SO4--      H2L      Sulfate      CAS 7664-93-9 (15)
Sulfate;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      nmr oth/un 25°C  1.0M C  I      K1=5.92      2002ZLa (16316) 185
Method: nmr relaxation. Medium: Na2SO4. K1=5.74 (I=2.0), 5.54 (I=3.0).

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At I=0, K1=6.10. In MgSO4, K1=5.14 (I=3), 5.06 (I=3.5), 4.78 (I=4).

Mn++ con mixed 20°C 50% C I K1=3.18 2001MTa (16317) 186
Medium: 50 % w/w DMF/H2O. Data for 0-80 % w/w DMF/H2O. At 0% DMF/
H2O, K1=2.36

Mn++ con none 25°C 0.0 C K1=2.26 1994NHa (16318) 187
Also data for 0.042 - 0.28 mole fraction EtOH/H2O.

Mn++ oth none 50°C 0.0 M T K1=2.51 1990BUB (16319) 188
Calculated from standard state functions at 25 C using isocoulombic
approach. Values for 50-300 C.

Mn++ nmr none 0.0 C T H K1=2.29 1988WCb (16320) 189
Method: esr. Data for 25-170C. DH(K1)=12 kJ mol⁻¹, DS(K1)=85 J K⁻¹ mol⁻¹.

Mn++ con none 25°C 0.0 C K1=2.24 1985SGd (16321) 190

Mn++ oth none 25°C 0.0 C K1=2.27 1981YYa (16322) 191
Calculated from published osmotic coefficient data. From UV
spectrometry (competition with Cu), K1=2.11. From conductivity, K1=2.21.

Mn++ con none 25°C 0.0 C T K1=2.80 1977STd (16323) 192
At 15 C, K1=2.70; at 40 C, K1=2.84.

Mn++ sol NaClO4 25°C 1.00M U I K1=0.57 B2=1.15 1975FKa (16324) 193
B3=1.20

Mn++ sp none 25°C 0.0 C K1=2.03 1975YYa (16325) 194
By vapour pressure osmometry, K1=2.18

Mn++ con oth/un 10°C 0.0 U T H K1=2.08 1974BEb (16326) 195
K1=2.20(25 C). DH(K1)=13.4 kJ mol⁻¹

Mn++ cal NaClO4 25°C 3.0M U H K1=-0.16 1974BRa (16327) 196
Medium:LiClO4. DH(K1)=9.6 kJ mol⁻¹, DS(K1)=29 J K⁻¹ mol⁻¹

Mn++ cal oth/un 25°C 0.0 U H 1973HPa (16328) 197
DH(K1)=9.1 kJ mol⁻¹

Mn++ cal oth/un 25°C 0.0 U H 1973POa (16329) 198
DH(K1)=8.3-8.6 kJ mol⁻¹

Mn++ nmr oth/un 25°C var U 1973RTa (16330) 199
K1out=1.76
K1in=0.54

Mn++ oth none 25°C 0.0 C K1=2.35 B2= 1.87 1972PIa (16331) 200
Calculated from published osmotic coefficient data.

Mn++	nmr alc/w	25°C	11%	U	I	K1=2.72 K1in=-0.47	1971BWb (16332)	201
Method:E.S.R., medium MeOH/H2O: 0% MeOH: K1=2.19, K1in=-0.68; 26%: K1=3.20, K1is=0.0								
Mn++	con oth/un	25°C	0.0	U		K1=2.30	1971HPa (16333)	202
Mn++	sp oth/un		?	U		K1=0.60 B2=0.64	1971KBh (16334)	203
In 7.5 M NH4NO3, by EMF: K1=0.6, K2=-0.3								
Mn++	oth mixed	15°C	20%	U	TI	K1=1.80	1970RAa (16335)	204
Method: ultrasonic absorption, medium: glycol/H2O. At 25 C: K1=1.82, 35 C: 1.85. In 40% glycerol, 15 C: K1=2.00; 25 C: 2.03; 35 C: 2.04								
Mn++	oth none	50°C	0.0	U	T	K1=2.5	1969HEa (16336)	205
Estimated from literature data. K1=2.6(60 C), 3.0(100 C), 3.6(150 C), 4.3(200 C)								
Mn++	cal none	25°C	0.0	U	H	K1=2.86	1969IEa (16337)	206
DH(K1)=2.6 kJ mol ⁻¹ , DS(K1)=63.5 J K ⁻¹ mol ⁻¹								
Mn++	nmr oth/un	20°C	5.0M	U		K1=0.09	1969VSa (16338)	207
Method:N.M.R.								
Mn++	ISE oth/un	35?°C	0.0	U		K1=2.27	1968PRd (16339)	208
Mn++	oth oth/un	25°C	0.0	U		K1=2.11	1967AKd (16340)	209
Method:ultrasonic absorbtion. I=0 corr. K1=overall constant								
Mn++	oth oth/un	30°C	0.0	U	T H		1967AKd (16341)	210
						K(Mn(aq)+L(aq))=1.73		
						K'(Mn(aq)+L(aq)=MnH2OL)=-0.48		
						K"(Mn(H2O)L=MnL)=0.58		
Method:ultrasonic absorption. Med:0 corr. K=1.69(20 C), 1.72(25 C), DH=6.27 kJ mol ⁻¹ ,DS=54.3 J K ⁻¹ mol ⁻¹ . K,=-0.40(2 C), -0.44(25 C);DH1=-13.4,DS=-54.3								
Mn++	oth oth/un	25°C	0.0	U	H	K1=2.26	1967HEb (16342)	211
From thermodynamic data. DH(K1)=15.1 kJ mol ⁻¹ , DS=93.6 J K ⁻¹ mol ⁻¹								
Mn++	con mixed	25°C	var	U	I	K1=2.13	1967PHa (16343)	212
In C2H4(OH)2/H2O mixtures(x mol). K1=2.42(x=0.1), 2.93(x=0.3), 3.63(x=0.5)								
Mn++	con mixed	25°C	50%	U	I	K1=3.59	1967TAb (16344)	213
Medium: 50% MeOH. K1=3.98(60%), 4.47(70%), 4.95(80%)								
Mn++	con mixed		?	20%	U	I	K1=2.72	1966ATb (16345)
Medium: 20.14% CH3OC2H4OH. K1=2.12(0%), 3.14(30.13%), 3.43(39.9%), 3.90(49.9%), 4.11(54.93%)								
Mn++	con oth/un	25°C	dil	U	I	K1=2.36	1965FDa (16346)	215

At 1 atm. K1=2.32(500 atm), 2.23(1000 atm), 2.18(1500 atm), 2.14(2000 atm)
I=0.0005 M MnL, values given also for conc upto 0.02 M

Mn++ oth oth/un 25°C 0.0 U K1=2.03 1965POa (16347) 216
K(Mn(H2O)2L=MnH2OL)=-0.15

Mn++ con mixed 25°C 9.9% U I K1=2.44 1964APa (16348) 217
Medium: 9.9% w/w Me2CO/H2O. K1=2.88(19.8%), 3.24(29.9%), 3.75(40.2%)

Mn++ con alc/w 25°C 10% U I K1=2.37 1962AHb (16349) 218
Medium: 10% MeOH, I=0 corr. K1=2.12(0%), 2.64(20%), 2.95(30%), 3.23(40%).
In dioxan/H2): K1=2.38(10%), 2.91(20%), 3.06(25%)

Mn++ oth oth/un 25°C 0.0 U K1=2.4 1959KOa (16350) 219
Method: ultrasound

Mn++ EMF oth/un 25°C 0.0 U T H K1=2.26 1959NNa (16351) 220
K1=2.01(0 C), 2.11(10 C), 2.20(20 C), 2.33(35 C), 2.42(45 C). DH(K1)=14.1
kJ mol-1, DS=95 J K-1 mol-1

Mn++ con oth/un 25°C 0.0 U K1=2.3 1958KVb (16352) 221

Mn++ con oth/un 25°C 0.0 U K1=2.28 1947JAa (16353) 222

S203-- H2L Thiosulfate CAS 73686-28-7 (177)
Thiosulfate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	cal	R4N.X	25°C	0.50M	U	H	K1=0.67	1974ARa (16873)	223
DH=2.09 kJ mol-1.									

Mn++	sol	none	25°C	0.0	U		K1=1.95	1951DMb (16874)	224

S204--		H2L					(317)		
Dithionite;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	nmr	oth/un	?	var	U		K1=0.72	1966BFc (16917)	225
							K1out=1.37		

Method: ESR

Se-- H2L Selenide (6335)
Selenide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	oth	oth/un	25°C	0.0	U			1964BUE (16945)	226
							Kso=-11.5		

Alternative method: Spectrophotometry. Medium: LiNO3

Estimated $K_{SO} = -30.0 (Fe^{++}) \quad -37.4 (Co^{++}) \quad -38.1 (Ni^{++}) \quad -79 (Pd^{++}) \quad -87 (Pt^{++})$

Estimated. Kso=-30.0(Fe++), -37.4(Co++), -38.1(Ni++), -79(Pd++), -87(Pt++)
-62.3(Cu+), -53.8(Cu++)

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

Mn++	gl	diox/w	25°C	50%	U	K1=1.82	1969SGa	(17623)	233
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Mn++ ix oth/un 25°C 1.0M U K1=0.80 1962TSa (17624) 234

CH3NO	HL	Formaldoxime	CAS 62479-75-2	(4206)
Formaldoxime; CH2:N.OH				

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K	values	Reference	ExptNo
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Mn++	oth	oth/un	20°C	0.10M	U	K1=20.7	1971BJa	(17670)	235
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Paper electrophoresis, acetate-veronal buffer

CH305P	H3L	Phosphonoformic	CAS 4428-95-9	(5654)
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Phosphonoformic Acid; $O=P(OH)_2.COOH$

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++ gl NaNO3 25°C 0.10M C K1=5.10 1994SCa (17701) 236

$$\begin{aligned} K(\text{Mn} + \text{HL}) &= 2.44 \\ K(\text{MnL} + \text{H}) &= 4.91 \end{aligned}$$

Mn++ nmr R4N.X 25°C 0.05M M K1=5.34 1982FPa (17702) 237

$$K(Mn+HL)=2.57$$

CH4N2O	L	Urea	CAS 57-13-6 (2018)
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Carbamide, Urea; $(\text{H}_2\text{N})_2\text{CO}$

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++ sol oth/un 25°C ? U K1=0.61 B2=0.69 1970STe (17721) 238

CH4N2S	L	Thiourea	CAS 62-56-6	(51)
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Thiocarbamide, Thiourea; $(\text{H}_2\text{N})_2\text{CS}$

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	sol oth/un	25°C	? U	K1=1.48	B2=3.58	1970STe (17838)	239
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B3=5.20

CH503P H2L CAS 13590-71-1 (1752)

Methylphosphonic acid; CH₃.P(=O)(OH)₂

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++ gl NaNO3 25°C 0.10M M K1=2.48 1992SCa (18129) 240

CH5O4P H2L CAS 86703-09-5 (1751)
Methylphosphoric acid; CH3OP(O)(OH)2

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

Mn++ gl NaNO3 25°C 0.10M M K1=2.20 1996SSa (18174) 241

Mn++ sp oth/un 20°C 0.10M U T K1=2.19 1965BRb (18175) 242
K1(65 C)=2.55

CH6NO3P H2L AMPA CAS 1066-51-3 (1981)
Aminomethylphosphonic acid; H2N.CH2.PO3H2

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

Mn++ gl NaNO3 25°C 0.10M C K1=3.62 1994SCa (18227) 243
K(Mn+HL)=1.77
K(MnL+H)=8.23

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

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

Mn++ gl KCl 25°C 0.10M U K1=12.95 B2=18.77 1967KLa (18286) 244
K(Mn+HL)=7.20
K(Mn+2HL)=13.26
K(2Mn+L)=15.85
K(2Mn+HL)=9.60

CH6O7P2 H3L CAS 56399-35-0 (7664)
Methyldiphosphoric acid;

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

Mn++ gl NaNO3 25°C 0.10M M K1=4.10 1999SSa (18309) 245

C2HO2F3 HL Trifluoroacetic CAS 76-05-1 (1360)
Trifluoroethanoic acid; F3C.COOH

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

Mn++ con non-aq 25°C 100% U K1=2.10 1979PPb (18349) 246
Medium: DMSO

C2H2O4 H2L Oxalic acid CAS 144-62-7 (24)
Ethanedioic acid; (COOH)2

[illegible]

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	0.10M	U		K1=1.66	1969GPb (19370)	262

0.1 M NaClO4 in 50% dioxane/H2O

Mn++	gl	diox/w	25°C	50%	U		K1=1.66	1969SGa (19371)	263
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Medium: 50% dioxan, 0.1 M NaClO4

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	0.10M	U		K1=1.43	1969GPb (19403)	264

0.1 M NaClO4 in 50% dioxane/H2O

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	0.10M	U		K1=1.41	1969GPb (19415)	265

0.1 M NaClO4 in 50% dioxane/H2O

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KN03	25°C	0.50M	U		K(Mn+HL)=0.48 K(Mn+2HL)=0.94	1989BAa (19479)	266

 C2H4N4 HL CAS 584-13-4 (819)
 4-Amino-1,2,4-triazole; C2H2N3.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KN03	25°C	0.50M	U		K1=0.65 B2=-0.09	1989BAa (19487)	267

 C2H4OS HL Thioacetic acid CAS 507-09-5 (4223)
 Thiolethanoic acid; CH3.CO.SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	30°C	60%	U		K1=4.1 B2=7.60	19720Tc (19508)	268

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.10M	U		K1=0.80	1983LTa (20043)	269
Mn++	kin	NaClO4	25°C	1.00M	U		K1=0.69	1973HHb (20044)	270
Mn++ 0.1 M NaClO4 in	gl	diox/w 50% dioxane/H2O	25°C	0.10M	U		K1=1.97	1969GPb (20045)	271

Mn++	gl	none	25°C	0.0	U	K1=1.40	1964AMa (20047)	273
Mn++	gl	non-aq	25°C	100%	U	K2=7.53	1964KLa (20048)	274
Medium: ethanoic acid								

Mn ⁺⁺	gl	oth/un	25°C	->0	U	K1=1.22	B2=2.07	1958SBc (20050)	276
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Mn++ oth oth/un 25°C ->0 U K1=1.20 1956YFa (20052) 278

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K	values	Reference	ExptNo
Mn++	gl	NaCl04	30°C	0.10M	U		K1=3.79		1988NDa (20344)	279
Mn++	gl	KCl	0°C	0.10M	U T		K1=4.3	B2=7.48	1964PCa (20345)	
15 C:	K1=4.3,	B2=7.3;	35 C:	K1=4.48,	B2=7.70;	40 C:	K1=4.3,	B2=7.3		
Mn++	gl	oth/un	25°C	0.10M	U		K1=4.38	B2=7.56	1958LEa (20346)	

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	50%	U			K1=2.48	1969SGa (20583)	282
Medium: 50% dioxan, 0.1 NaCl04										

C2H5NO2 HL Glycine CAS 56-40-6 (85)
2-Aminoethanoic acid; H2N.CH2.COOH

H2A=Dipicolinic acid.

HA=MOPSO, HB=MOPS, HC=DIPSO.

Method: polarography.

Mn++ gl KNO3 35°C 0.10M C M K1=3.85 1985RRc (21611) 288
K(Mn+HL+cytidine)=8.16
K(MnL(cytidine)+H)=3.79

Mn++ gl NaCl 20°C 0.15M M K1=3.00 1985Vda (21613) 290

Mn++	gl	mixed	25°C	20%	C	I	K1=3.9 K3=2.4	B2=6.90	1974MMa (21615)	292
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Medium: 60% DMF, 0.1M KNO₃. Also data for 20%, 40%, 50%, 70%, 75%, 80% DMF

Mn++ gl none 25°C 0.00 U T T K1=3.21 1972IJb (21617) 294
10 C: K1=3.23; 40 C: K1=3.15

Mn++ gl KNO3 37°C 0.15M U T K1=2.71 B2=4.76 1969CPc (21618) 295
 B3=5.52
 K(Mn+HL)=0.64
 K(MnL+HL)=0.80

Mn++ gl KNO3 25°C 0.10M U T K1=3.0 1969GEb (21619) 296

Mn++ gl KNO3 25°C 0.50M U M K1=2.56 B2=4.27 1969HLA (21620) 297
 B3=4.87
 B(MnLA)=7.29
 B(MnL2A)=9.51

HA=salicylaldehyde

Mn++ gl KCl 25°C 0.50M U M T K1=2.65 B2=4.7 1968LBA (21621) 298
 Ternary complexes with NTA and salicylaldehyde

Mn++ EMF oth/un 45°C 0.0 U T H T K1=3.161 1964BDA (21622) 299
 Method: H electrode. K1=3.199(0 C), 3.179(15 C), 3.167(25 C), 3.161(35 C);
 DH(K1)=-1.2 kJ mol⁻¹, DS=56.4 J K⁻¹ mol⁻¹

Mn++ oth KNO3 20°C 0.10M U K1=3.9 B2=5.60 1964JOa (21623) 300
 Method: paper electrophoresis

Mn++ gl KCl 25°C 0.65M U T H T K1=2.60 B2=4.58 1964LSa (21624) 301
 B3=5.7
 10 C: K1=2.66, B2=4.71, B3=6.0; 25 C: DH(K1)=-5.9 kJ mol⁻¹; DH(B2)=-13.8

Mn++ gl KCl 25°C 0.65M U T HM 1964LSa (21625) 302
 B(MnAL)=5.36
 B(MnAL2)=6.9
 B(MnA2L2)=9.79
 10 C: B(MnLA)=5.51, B(MnAL2)=7.7, B(MnA2L2)=10.25. 25 C: DH(MnLA)=-16.7 kJ mol⁻¹; DH(MnL2A2)=-49.3. HA=pyruvic acid.

Mn++ gl KCl 0°C 0.09M U T K1=3.21 1957MMA (21626) 303
 K1=3.12(30 C), 3.01(48.8 C). DH(K1)=-22 kJ mol⁻¹, DS=-13 J K⁻¹ mol⁻¹

Mn++ ix oth/un 22°C ? U K1=3.2 B2=5.7 1957WFA (21627) 304

Mn++ gl diox/w 30°C 75% U K1=6.3 B2=11.0 1954UFA (21628) 305

Mn++ gl oth/un 20°C 0.01M U K1=3.2 B2=5.50 1953ALA (21629) 306

Mn++ gl KCl 25°C 0.10M U T K1=2.85 1952KRA (21630) 307

Mn++ gl oth/un 25°C ->0 U T K1=3.44 1951MOa (21631) 308

Mn++ gl oth/un 25°C 0.01M U K1=3.66 B2=6.63 1949MMA (21632) 309

C2H5NO3

HL

CAS 2921-14-4 (1892)

Aminooxyethanoic acid; H2N.O.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.50M	U		K1=1.94	1985WTa (21829)	310

C2H5N3O2		L		Biuret			CAS 108-19-0	(1126)	
Carbomoylurea (Allophanic acid); H2N.CO.NH.CO.NH2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaClO4	25°C	0.01M	U	T H	K1=9.10	1979SBa (21853)	311
Mn++	gl	NaClO4	25°C	0.01M	U		K1=9.10	1975SSb (21854)	312

C2H5O5P		H3L					CAS 4408-78-0	(4225)	
Phosphonoethanoic acid; H00C.CH2.PO3H2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	nmr	R4N.X	25°C	0.05M	M	I	K1=5.25 K(Mn+HL)=2.95	1982FPa (21892)	313
K1=6.30, K(Mn+HL)=3.50 extrapolated to I=0									

C2H6N2O		L		Glycinamide			CAS 598-41-4	(60)	
2-Aminoethanoic acid amide; H2N.CH2.CO.NH2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	oth/un	25°C	0.02M	U		K1=1.5	1956DRb (21950)	314

C2H6N2O2		HL					CAS 5549-80-4	(833)	
2-Amino-N-hydroxyacetamide, Glycine hydroxamic acid; H2N.CH2.CO.NH.OH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaClO4	25°C	0.10M	C		K1=3.85 B2=6.45 B(MnHL)=11.07 B(MnH-1L)=-5.51	1987PCa (21993)	315

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	oth/un	?	0.0	U		B2=5.41	1961AMa (22072)	316

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	oth/un	25°C	0.10M	U			K1=0.81	1981HAa (22408)	317
Medium: 0.1 M HOCH2CH2NH2.HNO3										
Mn++	oth	oth/un	25°C	0.43M	U			K1=0.87 B2=1.10	1966SKe (22409)	318

C2H7O3P		H2L						CAS 71778-99-9	(1978)	
Ethylphosphonic acid; CH3.CH2.PO3H2										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	0.10M	M			K1=2.51	1992SCa (22568)	319

C2H8NO3P		H2L						CAS 6323-97-3	(1862)	
1-Aminoethanephosphonic acid; CH3.CH(NH2).PO3H2										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.20M	C			K1=3.50	1978MAb (22613)	320
								K(Mn+HL)=1.97		

C2H8NO3P		H2L						CAS 2041-14-7	(1863)	
2-Aminoethanephosphonic acid; H2N.CH2.CH2.PO3H2										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.20M	C				1978MAb (22635)	321
								K(Mn+HL)=2.12		

C2H8NO4P		H2L						CAS 1071-23-4	(1864)	
2-Aminoethyl-dihydrogenphosphoric acid; H2N.CH2.CH2.OPO3H2										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KCl	20°C	0.10M	U			K1=4.72	1987BPb (22671)	322
								K(Mn+HL)=2.74		
Mn++	gl	KNO3	25°C	0.20M	C				1978MAb (22672)	323
								K(Mn+HL)=1.89		
Mn++	gl	KNO3	25°C	0.20M	C				1978MAc (22673)	324
								K(Mn+HL)=1.89		
Mn++	gl	KCl	25°C	0.15M	U			K1=2.55	19620Sa (22674)	325
								K(Mn+HL)=1.72		

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
Mn++	cal	oth/un	25°C	dil	C	H		K1=2.76 B2= 4.87 B3=5.76	19890Fa (23190)	326
Medium: NH4Cl/NH3 buffer, pH 10. DH(K1)=-14.48 kJ mol ⁻¹ , DH(B2)=-24.69.										
Mn++	gl	KNO3	25°C	1.0M	C	TIH	R	K1=2.77 B2=4.87 B3=5.79	1984PAa (23191)	327
IUPAC evaluation. DH(K1)=-11.7, DH(K2)=-13.4, DH(K3)=-21.1 kJ mol ⁻¹										
Mn++	gl	NaClO4	25°C	0.10M	C		M	K1=2.74 B(MnLA)=5.3 K(MnL+A)=2.56 K(MnA+L)=2.58 B(MnLB)=6.6	1977SFa (23192)	328
H2A=malonic acid, B=adenosinetriphosphate										
Mn++	gl	KNO3	25°C	0.10M	C	I		K1=2.85 B2=4.75	1974MMa (23193)	329
Also data for 55%, 60%, 65%, 70%, 75%, 80% MeOH, 0.1M KNO3										
Mn++	gl	mixed	25°C	20%	C	I		K1=3.40 B2=5.87 K3=1.85	1974MMa (23194)	330
Medium: 60% DMF, 0.1M KNO3. Also data for 20%, 40%, 50%, 70%, 75%, 80% DMF										
Mn++	gl	NaClO4	25°C	0.10M	C	I		K1=2.79 B2=4.69	1974MMa (23195)	331
Also data for 20%, 40%, 50%, 60%, 70%, 75%, 80% Dioxan, 0.1M NaClO4										
Mn++	sp	R4N.X	25°C	1.50M	U		M		1973BDd (23196)	332
B((MnL2)A(CoL2))=30.62, K((MnL2)2A+(CoL2)2A=2(MnL2)A(CoL2))=0.27 H4A=EDTA Medium: NH4NO3 Data for other complexes also available										
Mn++	sp	KCl	25°C	1.50M	U		M		1972BFd (23197)	333
K(MnA+L)=0.91 K(MnAL+MnL3=Mn2AL4)=3.62 Medium: HCl. H4A=EDTA										
Mn++	gl	KNO3	25°C	0.10M	U			K2=2.1	1970DNa (23198)	334
Mn++	ISE	non-aq	25°C	100%	U			K1=3.7 B2=6.9 B3=10.1	1969PSd (23199)	335
Medium: DMSO, 0.1 M KClO4										
Mn++	gl	KCl	25°C	1.0M	U		H		1960CPa (23200)	336
DG(K1)=-15.68 kJ mol ⁻¹ , DH=-11.7, DS=13.4; DG(B2)=-27.80, DH=-25.1, DS=9.2; DG(B3)=-33.02, DH=-46.2, DS=-43.9										
Mn++	gl	oth/un	25°C	1.40M	U			K1=2.77 B2=4.87 K3=0.92	1957PBa (23201)	337

Mn++ EMF KCl 30°C 1.0M C K1=2.73 B2=4.79 1941BJa (23202) 338
K3=0.88

Method: H electrode

C2H8N4S L CAS 35771-42-7 (4227)
S-Methylisothiocarbohydrazide; H2N.N:C(S.CH3).NH.NH2

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

Mn++ gl KCl 25°C 0.50M U K1=2.02 1972BMc (23253) 339

C2H8O7P2 H4L HEDPA CAS 2809-21-4 (436)
1-Hydroxyethane-1,1-diphosphonic acid; CH3.C(OH)(PO3H2)2

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

Mn++ vlt NaClO4 25°C 0.40M C 1989NOc (23383) 340

K(Mn+H3L)=3.3
K(Mn+H2L)=3.2
K(Mn+HL)=8.1
K(Mn+2H3L)=6.0

Method: polarography. Medium pH=4.6-6.4. K(Mn+H2L+H3L)=7.2,
K(Mn+2H2L)=7.5, K(Mn+H2L+HL)=11.7.

Mn++ gl KNO3 25°C 0.10M U K1=6.94 1980ZRc (23384) 341

K(Mn+HL)=4.42
K(Mn+H2L)=3.18

Mn++ gl KCl 25°C 0.10M U K1=9.16 1967KLa (23385) 342

K(Mn+HL)=5.26
K(2Mn+H-1L)=19.64
K(2Mn+L)=13.23
K(2Mn+HL)=8.06

C2H9N06P2 H4L IDPA CAS 32545-63-4 (1335)
Imino-N,N-bis(methylenephosphonic acid); HN(CH2PO3H2)2

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

Mn++ gl KNO3 25°C 0.1M C K1=6.26 1985MMa (23456) 343

B(MnHL)=14.42
B(MnH2L)=19.28

Mn++ gl KNO3 25°C 1.00M M 1982BGb (23457) 344

K(Mn+HL)=2.95

C2H16N5O4Co HL (231)
Pentaammineoxalatocobalt(III); Co(NH3)5(HC2O4)

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

Mn++ sp NaClO4 28°C 0.30M U K1=1.18 1974NDa (23476) 345

C3H4N2 L Pyrazole CAS 288-13-1 (367)
 1,2-Diazole, pyrazole; cyclo(-NH.N:CH.CH:CH-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.50M	U		K1=0.60 B2=1.43	1989BAa (23573)	346
Mn++	vlt	oth/un	25°C	?	U		K1=5.0 B2= 9.40	1980CFa (23574)	347
Mn++	vlt	NaNO3	25°C	0.10M	U		K1=0.25 B2=0.34	1968CWa (23575)	348

 C3H4N2 L Imidazole CAS 288-32-4 (90)
 1,3-Diazole, imidazole; C3H4N2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	0.50M	M		K1=1.42	1998KSa (23905)	349
Mn++	gl	KNO3	25°C	0.50M	U		K1=1.32 B2=2.30 B3=3.23 B3=3.23	1989BLa (23906)	350
Mn++	gl	NaNO3	25°C	0.10M	A	M		1982SSa (23907)	351
							K(Mn(ATP)+L)=1.05		
Mn++	gl	NaNO3	25°C	0.10M	A	M	K1=1.25	1982SSa (23908)	352
							K(MnA+L)=1.27		

A=uridine-5'-triphosphate

Mn++	oth	KNO3	30°C	0.16M	U		K1=1.25 B2=1.95	1966SKc (23909)	353
Mn++	gl	oth/un	25°C	0.16M	U		K1=1.65 B2=2.90	1958MEb (23910)	354

 C3H4N2S L CAS 95-50-4 (821)
 2-Aminothiazole; C3H2NS.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	U	T H	K1=1.57	1978BBd (23963)	355
Data for 30, 35 and 40 C. DH(K1)=-58.2 kJ mol ⁻¹ , DS(K1)=-165 J K ⁻¹ mol ⁻¹ . *****									
C3H4N2S		HL						CAS 872-35-5 (1823)	
2-Mercaptoimidazole; C3H3N2.SH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaClO4	25°C	0.10M	U		K1=4.78 B2= 8.63	1977STc (23972)	356

 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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Mn++	gl	KCl	25°C	0.65M	U	T M	K1=1.26	1964LSa (24059)	357
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At 10 C: K1=1.20. Ternary complexes with glycine

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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Mn++	cal	oth/un	25°C	0.0	U	H		1963MNd (24496)	358
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Medium:0 corr. DH(K1)=15.5 kJ mol-1, DS=114.5 J K-1 mol-1

Mn++	gl	oth/un	0°C	->0	U	T H	K1=3.11	1961NNa (24497)	359
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DH(K1)=15.0 kJ mol-1, DS=113 J K-1 mol-1. K1=3.19(15 C), 3.27(25 C), 3.37(35 C), 3.48(45 C)

Mn++	ix	oth/un	25°C	0.16M	U		K1=2.30	1957LWc (24498)	360
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Mn++	EMF	oth/un	25°C	0.04M	U		K1=3.29	1949SDa (24499)	361
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Mn++	sp	oth/un	0°C	.205M	U			1940CNa (24500)	362
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K3=1.24

C3H5N3 HL CAS 1820-80-0 (1519)
 3-Amino-1,2-diazole; C3H3N2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	KNO3	25°C	0.50M	U		K1=0.82 B2=2.33	1989BAa (24671)	363
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C3H5O2Br HL 3-Br-propionic CAS 590-92-1 (1314)
 3-Bromopropanoic acid; Br.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	diox/w	25°C	0.10M	U		K1=1.69	1969GPb (24705)	364
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0.1 M NaClO4 in 50% dioxane/H2O

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	diox/w	25°C	0.10M	U		K1=1.88	1969GPb (24729)	365
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0.1 M NaClO4 in 50% dioxane/H2O

Mn++ gl diox/w 25°C 50% U K1=1.88 1969SGa (24730) 366
 Medium: 50% dioxan, 1.0 NaClO4

 C3H5O2F HL (6999)
 3-Fluoropropanoic acid;

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

Mn++ gl diox/w 25°C 0.10M U K1=1.65 1969GPb (24742) 367
 0.1 M NaClO4 in 50% dioxane/H2O

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

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

Mn++ gl diox/w 25°C 0.10M U K1=1.68 1969GPb (24749) 368
 0.1 M NaClO4 in 50% dioxane/H2O

 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

Mn++ gl diox/w 25°C 0.10M U K1=1.92 1969GPb (25021) 369
 0.1 M NaClO4 in 50% dioxane/H2O

 Mn++ gl diox/w 25°C 50% U K1=1.92 1969SGa (25022) 370
 Medium: 50% dioxan/H2O, 0.1 M NaClO4

 C3H6O2S H2L Thiolactic acid CAS 79-42-5 (366)
 2-Mercaptopropanoic acid; CH3.CH(SH).COOH

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

Mn++ gl NaClO4 30°C 0.10M U K1=2.44 1988NDa (25158) 371

 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

Mn++ EMF NaClO4 25°C 1.0M U K1=0.92 B2=1.46 1967TGa (25481) 372
 K3=0.1

Method: quinhydrone electrode.

 Mn++ ix oth/un 25°C 0.16M U K1=1.19 1957LWc (25482) 373

 Mn++ con oth/un 25°C ? U K1=1.428 1954EMa (25483) 374

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
Mn++	gl	KCl	25°C	0.10M	C	IH T	K1=2.60	1993SKa (26204)	375
IUPAC evaluation									
Mn++	gl	KNO3	25°C	0.10M	C	M	K(MnA+L)=4.17 B(MnAL)=9.22	1989MAd (26205)	376
H2A is N-(2-acetamido)imino diethanoic acid.									
Mn++	gl	KCl	25°C	0.20M	C		K1=2.27 B2= 4.17	1983KGb (26206)	377
Mn++	gl	KNO3	20°C	0.10M	U T		K1=3.08 B2=6.08	1973BSf (26207)	378
K1(40 C)=2.94, B2(40 C)=5.87; K1(50 C)=2.89, KB2(50 C)=5.80; K1(60 C)=2.85, B2(60 C)=5.74									
Mn++	gl	KCl	25°C	0.05M	U	T	K1=2.45	1971GKa (26208)	379
Mn++	gl	NaClO4	25°C	0.10M	U	T	K1=2.67	1970GPa (26209)	380
Mn++	ix	NaNO3	?	0.50M	U		K1=3.02 B2=6.74	1969BZb (26210)	381
Mn++	sol	oth/un	20°C	1.00M	U T		K1=3.15	1969BZb (26211)	382
K1(40 C)=3.07, K1(60 C)=2.94									
Mn++	gl	KNO3	37°C	0.15M	U	T	K1=2.39 B2=4.29 B3=5.70 K(MnL+HL)=0.96	1969CPc (26212)	383
Mn++	oth	KNO3	20°C	0.10M	U		K1=3.4 B2=5.30	1964JOa (26213)	384
Method: paper electrophoresis									
Mn++	gl	oth/un	25°C	->0	U	T	K1=3.02	1951MOa (26214)	385
Mn++	gl	oth/un	25°C	0.01M	U		K1=3.24 B2=6.05	1950MMa (26215)	386

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
Mn++	gl	KNO3	20°C	0.10M	U T	T	K1=2.13	1973BSf (26464)	387
K1(40 C)=2.01, K1(60 C)=1.94									
Mn++	ix	NaNO3	?	0.50M	U	T	K1=2.52 B2=6.13	1969BZb (26465)	388

Mn++ sol oth/un 20°C 1.00M U T K1=2.53 1969BZb (26466) 389
K1(40 C)=2.41, K1(60 C)=2.28

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
Mn++	gl	KNO3	25°C	0.10M	U		K1=4.56	1964LMa (26805)	390

Mn++	gl	oth/un	20°C	0.01M	U		K1=4.1	1952ALa (26806)	391
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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
Mn++	gl	KNO3	25°C	0.10M	C	M	K1=4.35	1999AAa (27150)	392

K(MnL+A)=3.53
B(MnLA)=7.88
K(MnL+B)=3.54
B(MnLB)=7.89

HA=MOPSO, HB=MOPS.

Mn++	gl	KNO3	25°C	0.10M	C	M	K(MnA+L)=3.86 B(MnAL)=8.91	1989MAd (27151)	393
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H2A is N-(2-acetamido)imino diethanoic acid.

Mn++	gl	NaCl	20°C	0.15M	M		K1=2.38	1985VDA (27152)	394
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Mn++	gl	KNO3	20°C	0.10M	U T		K1=3.91 B2=6.31	1973BSf (27153)	395
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K1(30 C)=3.87, B2=6.27; K1(40 C)=3.81, B2=6.22; K1(50 C)=3.77, B2=6.18;
K1(60 C)=3.72, B2(60 C)=6.15

Mn++	gl	NaClO4	25°C	3.00M	U		K1=2.89 B2=4.79	1973WIA (27154)	396
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Mn++	gl	KNO3	40°C	0.20M	U T H		K1=2.48 B2=3.95	1968RMB (27155)	397
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15 C: K1=2.51, K2=1.49. DH(B2)=-3.3 kJ mol⁻¹, DS=63 J K⁻¹ mol⁻¹

Mn++	oth	oth/un	25°C	0.0	U		K1=3.4 B2=6.7	1964SYa (27156)	398
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C3H7NO3 HL iso-Serine CAS 632-12-2 (351)
DL-3-Amino-2-hydroxypropanoic acid; H2N.CH2.CH(OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaCl	20°C	0.15M	U	M	K1=2.38	1983VDb (27232)	399

C3H7NO5S H2L Cysteic acid CAS 23537-25-9 (2603)

2-Amino-3-sulfonatopropanoic acid; HO3S.CH2.CH(NH2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.50M	U			K1=3.30	1979DZb (27254)	400

C3H7O5P		H3L						CAS 5926-41-4	(3549)	
2-Phosphonopropanoic acid; <chem>CH3.CH(P03H2).COOH</chem>										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	R4N.X	25°C	0.25M	U			K1=2.75	1957Wba (27303)	401
Medium: 0.1-0.4 M (C3H7)4NI										

C3H7O5P		H3L						CAS 5962-42-5	(522)	
3-Phosphonopropanoic acid; <chem>H00C.CH2.CH2.P03H2</chem>										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	nmr	oth/un	25°C	0.05M	M			K1=3.15 K(Mn+HL)=1.60	1982FPa (27312)	402

C3H7O6P		H2L						(6830)		
3-Hydroxy-2-oxopropylphosphoric acid; <chem>CH2(OH).CO.CH2.OP03H2</chem>										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	0.10M	U			K1=2.11	1992LCb (27323)	403

C3H7O7P		H3L						CAS 28474-06-8	(3552)	
D-2,3-Dihydroxypropanoic acid 2-phosphate (D-2-phosphoglyceric acid)										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	R4N.X	25°C	0.25M	U			K1=3.09	1957Wba (27332)	404
Medium: 0.1-0.4 M (C3H7)4NI										

C3H8NO5P		H3L						3-Phosphono-Ala CAS 20263-06-3	(1509)	
2-Amino-3-phosphonatopropanoic acid; <chem>(H2O3P)CH2.CH(NH2).COOH</chem>										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.20M	C			K1=4.90 K(Mn+HL)=2.60	1978MAb (27352)	405

C3H8NO5P		H3L						Glyphosate CAS 1071-83-6	(1617)	
N-(Phosphonomethyl)glycine; <chem>H2O3P.CH2.NH.CH2.COOH</chem>										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++ gl KCl 25°C 0.10M C I R K1=5.50 B2= 7.80 2001PRa (27406) 406
B(MnHL)=12.3

IUPAC Recommended value

Mn++ gl KNO3 25°C 0.1M C K1=5.47 B2=7.80 1985MMa (27407) 407
B(MnHL)=12.30

Mn++ gl KNO3 25°C 0.10M M K1=5.53 1978LCa (27408) 408
K(MnL+H)=6.92
K(MnL+OH)=4.30

C3H8N06P H3L Phosphoserine CAS 17885-08-4 (1865)

Serine dihydrogenphosphate, O-Phosphoserine; NH2.CH(CH2.OP03H2).COOH

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

Mn++ gl KNO3 25°C 0.20M C K1=3.80 1978MAb (27470) 409
K(Mn+HL)=2.33

Mn++ gl KNO3 25°C 0.20M C K1=3.80 1978MAc (27471) 410
K(Mn+HL)=2.33
K(MnL+H)=8.25

Mn++ gl KCl 25°C 0.15M U K1=3.9 19590Sa (27472) 411
K(Mn+HL)=1.91

Mn++ gl oth/un 25°C 0.15M U K1=3.9 19570Sa (27473) 412

C3H8N2O2 HL Ala-hydroxamic CAS 16707-85-0 (1582)

2-Amino-N-hydroxypropanamide, Alanine hydroxamic acid; CH3.CH(NH2).CO.NH.OH

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

Mn++ gl KCl 25°C 0.20M C K1=3.47 B2=5.97 1989FSa (27579) 413
B(MnHL)=10.92
B(MnH-1L)=-5.99
B(MnHL2)=14.30

C3H8OS2 H2L BAL CAS 59-52-9 (379)

2,3-Dimercaptopropan-1-ol; HS.CH2.CH(SH).CH2(OH)

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

Mn++ gl KCl 30°C 0.10M U K1=5.23 B2=10.43 1961LTa (27664) 414

C3H8O3S3 H3L Unithiol CAS 74-61-3 (1271)

2,3-Dimercaptopropanesulfonic acid; HS.CH2.CH(SH).CH2.S03H

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

Mn++ sp NaCl 25°C 0.1M U K1=4.62 B2= 7.51 1999PAa (27793) 415
Also published in Zh. Neorg.Khim. (1999) 44, 590

Mn++ EMF KNO3 ? 0.10M U K1=16.10 B2=21.10 1973RPa (27794) 416

C3H9O4P H2L (6694)

(Phosphonylmethoxy)ethane; H2O3P.CH2.O.CH2.CH3

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

Mn++ gl NaNO3 25°C 0.10M M K1=2.62 1992SCa (28021) 417

C3H9O6P H2L CAS 57-03-4 (2984)

2,3-Dihydroxypropylphosphoric acid, Glycerol 1-phosphate; HO.CH2.CH(OH).CH2.OPO3H2

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

Mn++ gl NaNO3 25°C 0.10M U K1=2.21 1992LCb (28049) 418

C3H10NO3P H2L (1986)

1,1-Dimethyl-1-aminomethylphosphonic acid; H2N.C(CH3)2.PO3H2

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

Mn++ gl KCl 25°C 0.10M U K1=4.03 B2=7.43 1969DMd (28076) 419

K(Mn+HL)=2.94

C3H10NO3P H2L CAS 35869-68-2 (1989)

Dimethylaminomethylphosphonic acid; (CH3)2N.CH2.PO3H2

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

Mn++ gl KNO3 25°C 0.10M C K1=4.22 1993SKc (28101) 420

K(MnL+H)=8.98

C3H11NO6P2 H4L (6772)

(Dimethylamino)-N-methylenediphosphonic acid; (CH3)2N.CH(PO3H2)2

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

Mn++ gl KCl 25°C 0.10M M K1=7.26 1978GMf (28414) 421

K(Mn+HL)=6.71

C3H11NO6P2 H4L (6735)

N-Methylimino-N,N-bis(methylenephosphonic acid); CH3.N(CH2PO3H2)2

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

Mn++ gl KCl 25°C 0.20M C K1=7.42 2000KKa (28449) 422

B(MnHL)=15.19

B(MnH2L)=19.82
B(MnH-1L)=-4.23

Mn++ gl KNO3 25°C 0.10M C K1=8.24 1993SKc (28450) 423
K(MnL+H)=7.93
K(MnHL+H)=4.54

C3H11N2O3P H2L CAS 23575-68-0 (4244)
Ethylenediamine-N-methylenephosphonic acid; H2N.CH2.CH2.NH.CH2.PO3H2

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

Mn++ gl oth/un 25°C 0.10M U K1=5.15 1972AUa (28465) 424
K(Mn+HL)=2.2

C3H12NO9P3 H6L NTPA CAS 6419-19-8 (2920)
Nitrilotris(methylenephosphonic acid); N(CH2PO3H2)3

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

Mn++ gl KNO3 25°C 0.10M C K1=10.9 1989SAa (28576) 425
K(MnL+H)=7.37
K(MnHL+H)=5.93
K(MnH2L+H)=4.7

Mn++ vlt NaClO4 25°C 0.40M C 1988NKb (28577) 426
K(Mn+H3L)=3.3
K(Mn+H2L)=4.4
K(Mn+HL)=5.7

Method: polarography. Medium pH=5.6.

Mn++ gl KCl 25°C 0.1M M K1=10.20 1975MNa (28578) 427
K(Mn+HL)=5.64
K(Mn+H2L)=4.42
K(Mn+H3L)=3.54

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

Mn++ oth NaClO4 25°C 0.50M U K1=1.51 1969TWa (28658) 428
Method: paper chromatography

C4H3N2O2Br H2L 5-Bromouracil CAS 51-20-7 (8651)
5-Bromo-2,4-dihydroxypyrimidine;

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

Mn++ gl NaNO3 25°C 0.10M C M K1=9.70 2000SSd (28683) 429

K(Mn+HL)=5.91
 K(Mn+HL+OH)=12.89
 K(MnHL+OH)=6.78
 K(Mn+L+2OH)=18.62

Also data for ternary complexes. K(MnLOH+OH)=5.98.

C4H3N2O2F HL 5-Fluorouracil CAS 51-21-8 (4277)
 5-Fluoro-2,4(1H,3H)-pyrimidinedione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	0.10M	U	M	K1=6.49 K(MnA+L)=6.15	1996SGa (28693)	430

A is adenine.

C4H3N2O2I H2L 5-Iodouracil CAS 696-07-1 (8652)
 5-Iodo-2,4-dihydroxypyrimidine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	0.10M	C	M	K1=9.64 K(Mn+HL)=5.90 K(Mn+HL+OH)=12.62 K(MnHL+OH)=6.72 K(Mn+L+OH)=12.18	2000SSd (28702)	431

Also data for ternary complexes. K(Mn+L+2OH)=18.82, K(MnLOH+OH)=6.65.

C4H3N3O3S H3L Thiovioluric CAS 23036-77-3 (2000)
 2-Thio-4,5,6(H)-pyrimidinetetrone 5-oxime

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	30°C	50%	U		K1=2.93	1973CSb (28723)	432

Medium: 50% dioxan, 0.1 M NaClO4

C4H3N3O4 H3L Oxonic acid CAS 937-13-3 (1296)
 4,6-Dihydroxy-1,3,5-triazine-2-carboxylic acid; C3N3(OH)2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	sp	NaClO4	20°C	0.20M	U		K1=3.85	1981LDa (28759)	433

C4H4N2O2 HL Uracil CAS 66-22-8 (412)
 2,4-Dihydroxypyrimidone, 2,4-Pyrimidinedione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	U	T H	K1=3.35	1983KSa (28860)	434

Mn++	gl	KNO3	35°C	0.10M	U		K1=3.14 B2=7.53	1981TSa (28861)	435
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Mn++ gl KNO3 45°C 0.10M U K1=2.9 1974KKa (28862) 436

C4H4N2O2 H2L CAS 123-33-1 (8346)
3,6-Dihydroxypyridazine;

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

Mn++ vlt mixed 25°C 30% C T H K1=10.08 1992SBb (28876) 437
Method: polarography. Medium: 30% DMSO/H2O, 0.10 M LiClO4.
Data for 15 and 35 C. DH(K1)=-61.8 kJ mol⁻¹, DS(K1)=-52 J K⁻¹ mol⁻¹.

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

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

Mn++ gl NaClO4 31°C 0.10M U T H K1=5.11 B2= 8.86 1984SJa (28893) 438
Also data for 18 and 42 C. DH(K1)=-40.7 kJ mol⁻¹, DS(K1)=-37.3 J K⁻¹ mol⁻¹
DH(K2)=-30.4, DS(K2)=-28.6.

C4H4N6 L 8-Azaadenine CAS 1123-54-2 (1884)
8-Aza-6-aminopurine;

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

Mn++ gl KNO3 45°C 0.10M U K1=4.0 1973TKa (28954) 439

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

Mn++ ix oth/un 25°C 0.16M U K1=1.68 1957LWc (29103) 440

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

Mn++ ix oth/un 25°C 0.16M U K1=0.99 1957LWc (29210) 441

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

Mn++ gl NaClO4 25°C 0.50M U TI K1=1.21 1990MOf (29273) 442
At 0.1 M, K1=1.64. At 30 C and 0.5 M, K1=1.14.

Mn++ kin oth/un 25°C 0.27M U K1=7.4 1987TLa (29274) 443
Result given for enol form. For ligand hydrate, K1=6.6

Mn++ kin KCl 25°C 0.50M U I K1=1.23 1982BLb (29275) 444
K(2Mn+L=Mn2H-1L+H)=-4.83
K(MnL=MnH-1L+H)=-7.9
K(MnL(keto)=MnL(enol))=-0.34

Also in 50% dioxan/H2O

Mn++ EMF diox/w 25°C 25% C I K1=1.42 1981MLa (29276) 445
50% v/v dioxan/water: K1=1.91, K2=1.3; 75%: K1=2.18

Mn++ gl oth/un 25°C 0.10M U K1=2.8 1958GHc (29277) 446
K(MnL+Mn)=2

C4H5N2Cl L CAS 872-49-1 (7589)
5-Chloro-1-methylimidazole;

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

Mn++ gl NaNO3 25°C 0.50M M K1=1.03 1998KSa (29336) 447

C4H5N3O HL Cytosine CAS 71-30-7 (1096)
2-Oxy-6-aminopyrimidine;

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

Mn++ gl KNO3 35°C 0.10M U M 1986RRe (29413) 448

K(Mn+HL+HA)=8.05
K(Mn(HL)A+H)=4.10
K(Mn+HL+D)=9.07
K(Mn+HL+HC)=7.63

HA is glycine; H2D is oxalic acid; C is histamine.
K(Mn(HL)C+H)=3.45

Mn++ gl KNO3 45°C 0.10M U 1974KKa (29414) 449

K(Mn+HL)=2.6

C4H5N3O2 HL (1327)
4-Oximino-3-methyl-2-pyrazolin-5-one;

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

Mn++ gl alc/w 20°C 50% U T K1=2.33 B2=4.86 1981SSc (29429) 450
At 30 C: K1=2.76, B2=5.58

C4H6N2 L 2-Me-Imidazole CAS 693-98-1 (122)
2-Methyl-1,3-diazole; C3H3N2.CH3

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

Mn++ gl KNO3 25°C 0.50M U K1=0.93 B2=1.67 1989BLa (29488) 451

C4H6N2 L Methylpyrazole CAS 453-58-3 (368)
 3-Methyl-1,2-diazole; C3H3N2.CH3

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

Mn++ gl KNO3 25°C 0.50M U K1=0.44 B2=0.99 1989BLa (29504) 452

Mn++ vlt oth/un 25°C ? U K1=0.5 B2= 2.60 1980CFa (29505) 453

C4H6N2 L N-Me-Imidazole CAS 616-47-7 (354)
 N-Methyl-1,3-diazole; C3H3N2.CH3

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

Mn++ gl NaNO3 25°C 0.50M M K1=1.38 1998KSa (29602) 454

Mn++ gl KNO3 25°C 0.50M U K1=1.34 B2=2.08 1989BLa (29603) 455
 B3=3.08

 C4H6N2S HL Methimazole CAS 60-56-0 (1824)
 N-Methyl-2-mercaptoimidazole; C3H2N2(CH3).SH

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

Mn++ gl NaClO4 25°C 0.10M U K1=5.20 B2= 9.34 1977STc (29664) 456

C4H6O2S2 HL CAS 2224-02-4 (1225)
 1,2-Dithiolane-3-carboxylic acid, Tetranorlipoic acid; C3H5S2.COOH

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

Mn++ gl NaClO4 25°C 0.10M C K1=1.87 1978SPd (29741) 457

 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

Mn++ gl NaClO4 37°C 0.15M C K1=2.71 B2=5.44 1977RWc (29995) 458
 B(MnHL)=7.41

Mn++ cal KCl 25°C 0.10M U H 1967MNC (29996) 459
 DH(K1)=12.5 kJ mol⁻¹, DS=85.7 J K⁻¹ mol⁻¹

Mn++ gl oth/un 25°C ->0 U T H K1=2.26 1961MNC (29997) 460
 DH(K1)=12.3 kJ mol⁻¹, DS=85. K1=2.11(0 C), 2.18(15 C), 2.32(35 C)

Mn++	ix	oth/un	25°C	0.16M	U	K1=1.26	1957LWc (29998)	461

C4H6O4S		H2L			Thiodiacetic	CAS 123-93-3	(140)	
2,2'-Thiodiglycolic acid, Thiodiethanoic acid; HOOCH ₂ CH ₂ SCOOH								

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

Mn++	gl	NaClO4	25°C	0.10M	U	TIH	K1=2.92	1983DBb (30221) 462

Mn++	gl	NaClO4	25°C	0.10M	U		K1=1.75 K(Mn+HL)=0.6	1970PPa (30222) 463

Mn++		EMF	NaClO4	25°C	0.10M	U	K1=1.7	1966SYa (30223) 464

C4H6O4S		H3L			Thiomalic acid	CAS 70-49-5	(109)	
2-Mercaptosuccinic acid, 2-Sulfanyl-1,4-butanedioic acid; HOOCH(SH)CH ₂ COOH								

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

Mn++	gl	NaClO4	30°C	0.10M	U		K1=4.50	1988NDa (30346) 465

C4H6O4S2		H2L					CAS 505-73-7	(3585)
Dithiodiethanoic acid; HOOCH ₂ SSCH ₂ COOH								

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

Mn++	gl	NaClO4	25°C	0.10M	U		K1=1.7	1968SKd (30412) 466

C4H6O4Se		H2L					CAS 6228-62-2	(984)
Selenodiethanoic acid; HOOCH ₂ SeCH ₂ COOH								

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

Mn++	gl	KNO3	25°C	0.10M	C		K1=2.02 K(Mn+HL)=0.88	1975LPa (30450) 467

Mn++	gl	NaClO4	25°C	0.10M	U		K1=1.6	1966SYa (30451) 468

C4H6O5		H2L			Malic acid	CAS 617-48-1	(393)	
2-Hydroxybutane-1,4-dioic acid, Hydroxy-succinic acid; HOOCH ₂ CH(OH)COOH								

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

Mn++	ix	oth/un	25°C	0.16M	U		K1=2.24	1957LWc (30674) 469

C4H6O5		H2L			Diglycolic acid	CAS 110-99-6	(243)	
Di(carboxy)methyl ether, 2,2'-Oxydiethanoic acid; HOOCH ₂ OCH ₂ COOH								

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

Mn++	gl	KCl	25°C	0.10M	C	K1=2.54	1984MMg (30897)	470
Mn++	gl	NaClO4	25°C	0.10M	U TIH	K1=2.65	1983DBb (30898)	471
Mn++	vlt	NaClO4	25°C	0.40M	C	K1=2.7 B2= 3.80 B3=5.3	1978NSa (30899)	472

Method: polarography. Medium pH 5.3-8.6.

Mn++	gl	KNO3	25°C	0.10M	U	K1=2.52	1975MTc (30900)	473
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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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Mn++	ix	oth/un	30°C	dil	C T	K1=1.89	1992LHb (31301)	474
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Medium: 0.2-5.0 mM tartaric acid eluent. At 40 C, K1=1.94

Mn++	gl	NaClO4	32°C	0.10M	U	K1=1.44 K(MnH-1L+H)=7.62 K(MnH-2L+H)=10.14	1967TPa (31302)	475
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Mn++	dis	R4N.X	20°C	0.10M	U	K1=2.92 ?	1963STc (31303)	476
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C4H7NO2 HL (8137)
(S)-Azetidine-2-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	KNO3	25°C	0.10M	C	K1=3.4	1989ARa (31443)	477
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C4H7NO2 HL CAS 57-71-6 (6204)
But-2,3-dione monoxime; CH3.CO.C(:NOH).CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	alc/w	25°C	75%	U	K1=6.2 B2=10.20	1986BTa (31456)	478
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Medium: 75% MeOH/H2O, 0.1 M NaClO4

C4H7NO2S HL Thioproline CAS 444-27-9 (1183)
Thiazolidine-4-carboxylic acid; C3H6NS.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	NaCl	37°C	0.15M	C	K1=1.904	1981HMa (31473)	479
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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
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Mn++	gl	NaNO3	25°C	0.10M	C	M	K1=4.82 K(MnA+L)=5.07	2000KAb (31885)	480
H2A=Dipicolinic acid.									
Mn++	gl	KNO3	25°C	0.10M	C	M	K1=4.74 K(MnL+A)=3.66 B(MnLA)=8.40 K(MnL+B)=3.78 B(MnLB)=8.52	1999AAa (31886)	481
K(MnHL+C)=1.61. HA=MOPSO, HB=MOPS, HC=TAPSO.									
Mn++	gl	KNO3	25°C	0.10M	C	M	K(MnA+L)=9.48 B(MnAL)=14.53	1989MAAd (31887)	482
H2A is N-(2-acetamido)imino diethanoic acid.									
Mn++	gl	KNO3	25°C	0.10M	M		K1=3.45 B2= 5.79	1981GVa (31888)	483
Mn++	gl	oth/un	20°C	0.01M	U		K1=4	1952ALa (31889)	484
Mn++	gl	KCl	25°C	0.10M	U		K1=3.74	1952KRb (31890)	485

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
Mn++	gl	NaClO4	25°C	3.00M	C		K1=3.102 B2=5.222	1974BWa (32710)	486
Mn++	gl	oth/un	20°C	0.01M	U		B2=4.5	1950ALa (32711)	487

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
Mn++	gl	NaNO3	35°C	0.10M	U	M	K1=2.60 K(MnL+CMP)=1.44	1985KSc (33033)	488
H2CMP=cytidine-5'-monophosphoric acid									
Mn++	gl	KCl	25°C	0.20M	C	M	K(Mn(DOPA)+L)=2.32 B(MnHL(DOPA))=20.08	1984KDb (33034)	489
Ternary data also with Dopamine, Adrenaline and Noradrenaline									
Mn++	gl	KCl	20°C	0.20M	U		K1=1.90	1982KRc (33035)	490
Using EPR spectroscopy: K1=1.83									
Mn++	gl	oth/un	25°C	0.02M	U T		K1=2.19	1956DRb (33036)	491

40 C: K1=1.99

Mn++ gl oth/un 25°C ->0 U K1=2.15 1951MOa (33037) 492

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

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

Mn++ gl diox/w 25°C 50% U K1=1.85 1969SAa (33409) 493
Medium: 50% dioxan, 0.1 M NaClO4

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

Mn++ EMF NaClO4 25°C 1.0M U K1=0.90 B2=1.48 1967TGa (33490) 494
K3=0.2

Method: quinhydrone electrode.

C4H8S L CAS 110-01-0 (150)
Tetrahydrothiophene; cyclo(-CH2.CH2.S.CH2.CH2-)

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

Mn++ gl alc/w 25°C 50% C K1=-0.31 1979SRa (33737) 495

Mn++ sp alc/w 25°C 50% C K1=-0.31 1975RSa (33738) 496
Medium: 50% EtOH, 1.0 M NaClO4

C4H9NO2 HL 2-Aminobutyric CAS 2835-81-6 (571)
2-Aminobutanoic acid; CH3.CH2.CH(NH2).COOH

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

Mn++ vlt NaClO4 25°C 0.40M U K1=3.1 1979NSa (33918) 497

C4H9NO2S HL Methylcysteine CAS 1187-84-4 (84)
2-Amino-3-methylmercaptopropanoic acid; H2N.CH(CH2.S.CH3)COOH

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

Mn++ gl KNO3 25°C 0.10M U K1=2.52 B2=4.27 1964LMa (34099) 498

C4H9NO3 HL Threonine CAS 72-19-5 (48)
2-Amino-3-hydroxybutanoic acid; H2N.CH(CH(OH).CH3)COOH

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

Mn++ gl KNO3 25°C 0.10M C M 1989MAd (34312) 499

K(MnA+L)=3.95

B(MnAL)=9.00

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

Mn++ gl NaCl 37°C 0.15M U K1=2.34 B2=4.94 1986XHa (34313) 500

B(MnHL)=9.916

Mn++ gl NaCl 20°C 0.15M M K1=2.17 1985Vda (34314) 501

Mn++ gl KNO3 40°C 0.20M U T H K1=2.56 B2=3.93 1968RMb (34315) 502

At 15 C: K1=2.59, K2=1.39; DH(B2)=-3.3 kJ mol⁻¹, DS=62.7 J K⁻¹ mol⁻¹

C4H9NO3 HL Homoserine CAS 1927-25-9 (578)

2-Amino-4-hydroxybutanoic acid; HO.CH2.CH2.CH(NH2).COOH

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

Mn++ gl KCl 25°C 0.10M U K1=2.47 1971BDc (34356) 503

C4H9NO3 HL CAS 4385-95-9 (1894)

2-Aminooxybutanoic acid; CH3.CH2.CH(O.NH2).COOH

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

Mn++ gl KNO3 25°C 0.50M U K1=1.53 1985WTa (34365) 504

C4H9N3O2 HL CAS 57-00-1 (8275)

Methylguanidoethanoic acid;

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

Mn++ gl NaCl04 20°C 0.10M U T H K1=2.94 B2= 5.27 1983SSg (34419) 505

Also data for 30 and 40 C. DH(B2)=-4.85 kJ mol⁻¹, DS(B2)=221 J K⁻¹ mol⁻¹.

C4H9O4P HL (1757)

Prop-2-onophosphonic acid methyl ester; CH3.CO.CH2.P(O)(OH).OCH3

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

Mn++ sp oth/un 23°C 0.01M U K1=1.74 1975Kwa (34440) 506

C4H10NO5P H3L (6029)

2-Amino-3-phosphonatobutanoic acid; CH3.CH(H2O3P).CH(NH2).COOH

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

Mn++ gl KCl 20°C 0.10M U K1=7.88 1987BDc (34450) 507

K(Mn+HL)=2.98

C4H10N05P H3L CAS 6323-99-5 (6043)
 2-Amino-4-phosphonatobutanoic acid; H2O3P.CH2.CH2.CH(NH2)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	20°C	0.10M	U		K1=4.06 K(Mn+HL)=2.14	1987BDc (34463)	508

C4H10N06P H2L CAS 6401-59-8 (2399)
 O-Phospho-2-methylserine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.20M	C		K1=3.65 K(Mn+HL)=1.92 K(MnL+H)=8.34	1978MAc (34476)	509

C4H10N06P H2L CAS 1114-81-4 (2400)
 O-Phospho-threonine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.20M	C		K1=3.81 K(Mn+HL)=2.20 K(MnL+H)=8.06	1978MAc (34484)	510

C4H10N202 HL CAS 1883-09-6 (45)
 2,4-Diaminobutanoic acid; H2N.CH2.CH2.CH(NH2)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	oth/un	20°C	0.01M	U		K1=4.2	1952ALa (34569)	511

C4H10N202 HL EDMA (2784)
 Diaminoethane-N-ethanoic acid; H2N.CH2.CH2.NH.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.50M	C		K1=3.629	1985LEa (34592)	512

C4H10N204S HL ACES CAS 7365-82-4 (7488)
 N-(2-Acetamido)-2-aminoethanesulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	C	M	K1=3.68	2001AAa (34628)	513

Also data for ternary complexes with 5'-GMP, 5'-IMP and 5'-CMP.

Mn++	gl	KNO3	25°C	0.10M	C		K1=3.85	2000ADa (34629)	514
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C4H10O2S L CAS 111-48-8 (4275)
3-Thiapentane-1,5-diol; HO.CH2.CH2.S.CH2.CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++ g1 NaCl04 25°C 1.0M C K1=-0.22 1979SRa (34686) 515

C4H11NO2 L Diethanolamine CAS 111-42-2 (89)
2,2'-Iminodiethanol; HN(CH2.CH2.OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++ oth oth/un 25°C 0.43M U K1=1.55 B2=2.00 1966Ske (34961) 516
Medium: CH2OHCH2NH3NO3

C4H11NO3 L Tris buffer CAS 77-86-1 (550)
2-Amino-2-(hydroxymethyl)-propan-1,3-diol; (HO.CH2)3C.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++ g1 NaClO4 25°C 2.0M U K1=0.70 B2= 0.73 2000Lmb (35059) 517

C4H11N08P2 H5L CAS 2439-99-8 (2129)
N-Carboxymethyl-N,N-bis(methylenephosphonic acid); $\text{HOOC.CH}_2.\text{N}(\text{CH}_2.\text{PO}_3\text{H}_2)_2$

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	KN03	25°C 0.10M C	K1=9.9	2000SDa (35111) 518
				K(MnL+H)=6.73	
				K(MnHL+H)=4.77	
				K(MnH2L+H)=3.1	
				K(MnL+OH)=2.6	

Mn++	gl	KCl	25°C 0.10M U	K1=8.49	1974Nka (35112)	519
				K(Mn+HL)=4.75		
				K(Mn+H2L)=3.87		

Mn++ g1 KNO3 25°C 0.10M U K1=7.0 1965WRa (35113) 520

C4H11N3O2	HL	CAS	471915-94-3	(8550)
2,4-Diamino-N-hydroxybutanamide;				

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K	values	Reference	ExptNo
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Mn++	gl	KCl	25°C 0.20M C	K1=3.77	2002ECa (35178) 521
				B(MnHL)=12.88	
				B(MnH-1L)=-4.93	
				B(MnH2L2)=25.89	
				B(MnHL2)=16.47	

C4H11O4P H2L (5867)
n-Butyl phosphoric acid; C4H9.O.PO(OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	0.10M	C		K1=2.34	1988MSa (35287)	522

C4H12N2 L CAS 563-86-0 (59)
DL-2,3-Diaminobutane; H2N.CH(CH3).CH(CH3).NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	U		K1=2.94	1977PSb (35380)	523

C4H12N2 L Butanediamine CAS 20759-15-3 (58)
meso-2,3-Diaminobutane; H2N.CH(CH3).CH(CH3).NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	U		K1=2.64	1977PSb (35490)	524

C4H12O7P2 H3L CAS 52811-47-9 (7665)
N-Butyldiphosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	0.10M	M		K1=4.32	1999SSa (35586)	525

C4H13NO6P2 H4L CAS 5995-26-6 (1336)
N-Ethyliminobis(methylenephosphonic) acid; C2H5N(CH2PO3H2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.20M	C		K1=7.25 B(MnHL)=15.80 B(MnH2L)=20.54 B(MnH-1L)=-3.49	2000KKa (35607)	526

Mn++	gl	KNO3	25°C	1.00M	M		K1=6.94 K(Mn+HL)=3.29	1982BGb (35608)	527
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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
Mn++	cal	KCl	25°C	0.10M	U			1961CPa (35797)	528

DH(B2)=29.1 kJ mol⁻¹

Mn++ gl KCl 30°C 1.0M U T H K1=3.99 B2=6.82 1952JHa (35798) 529
 40 C: K1=3.89, K2=2.72. DH(K1)=-17 kJ mol⁻¹, DH(K2)=-21

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
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Mn++	EMF	KCl	25°C	0.10M	C		K1=6.0 B(MnHL)=16.8 B(MnH2L)=24.6 K(MnH3L)=32.3 K(MnH4L)=38.1	2001MNB (35886)	530
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B(Mn2L)=12.1; B(Mn2HL)=21.4

Mn++	gl	oth/un	25°C	0.10M	U		K1=7.25	1972AUa (35887)	531
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Mn++	gl	KCl	25°C	0.10M	U		K1=7.55 K(Mn+HL)=3.63	1965DKb (35888)	532
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C5H20F6 HL HFA CAS 1522-22-1 (195)
 1,1,1,5,5,5-Hexafluoropentane-2,4-dione; F3C.CO.CH2.CO.CF3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	dis	NaClO4	25°C	1.0M	C	M	K1=1.04	1977SMe (35927)	533
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Method: distribution from 1.0 M NaClO4 into CCl4/HL/tri-octylphosphine oxide (A). K(Mn+2HL(org)=MnL2(org)+2H)=-5.0.

C5H3N2O4Br H2L 5-Bromoorotic CAS 15018-62-9 (3629)
 1,2,3,6-Tetrahydro-2,6-dioxo-5-bromo-4-pyrimidinecarboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	R4N.X	25°C	0.10M	U		K1=1.88	1964TTa (35961)	534
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Medium: Me4NBr

C5H3N2O4I H2L 5-Iodoorotic CAS 17687-22-8 (3630)
 1,2,3,6-Tetrahydro-2,6-dioxo-5-iodo-4-pyrimidinecarboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	R4N.X	25°C	0.10M	U		K1=2.25	1964TTa (35968)	535
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Medium: Me4NBr

C5H3N3O6 H2L 5-Nitroorotic CAS 17687-24-0 (3615)
 1,2,3,6-Tetrahydro-2,6-dioxo-5-nitro-4-pyrimidinecarboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++ ix NaClO4 25°C 0.10M U K1=1.74 1966DTa (35977) 536

Mn++ gl KCl 25°C 0.10M U K1=1.79 1961TDa (35978) 537

C5H3N4Cl L 6-Chloropurine CAS 87-42-3 (3032)
6-Chloropurine;

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

Mn++ gl KNO3 45°C 0.10M U K1=6.6 1971TKc (35989) 538

C5H4NBr L CAS 1120-87-2 (8780)
4-Bromopyridine;

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

Mn++ gl NaNO3 25°C 0.50M C K1=0.30 2002KSb (36004) 539

C5H4NCl L CAS 626-60-8 (322)
3-Chloropyridine; C5H4N.Cl

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

Mn++ gl NaNO3 25°C 0.50M C K1=0.19 2002KSb (36025) 540

C5H4N2O3S H2L Thioorotic acid (4335)
1,2,3,6-Tetrahydro-2-thio-6-oxo-4-pyrimidinecarboxylic acid;

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

Mn++ gl NaCl 20°C 0.15M U K1=3.79 1979DZe (36077) 541
K(Mn+HL)=2.33

C5H4N2O4 H2L Orotic acid CAS 65-86-1 (624)
1,2,3,6-Tetrahydro-2,6-dioxo-4-pyrimidinecarboxylic acid;

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

Mn++ gl NaCl 20°C 0.15M M 1985VDa (36114) 542
K(Mn+HL)=2.49

Mn++ gl NaCl 20°C 0.15M U M K1=2.49 1983VDb (36115) 543

Mn++ gl NaCl 25°C 0.15M U T H K1=4.30 1979DZd (36116) 544

Mn++ gl NaCl 20°C 0.15M U K1=4.38 1979DZe (36117) 545
K(Mn+HL)=2.49

Mn++ gl NaClO4 25°C 0.50M U 1979MDa (36118) 546
K(Mn+H2L)=4.04

K(Mn+2H2L)=6.96

K(Mn+H2L)=4.85 by spec.

C5H4N2O4 H2L Isoorotic acid CAS 23945-44-0 (3616)

1,2,3,6-Tetrahydro-2,6-dioxo-5-pyrimidinecarboxylic acid;

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

Mn++ ix NaClO4 25°C 0.10M U 1966DTa (36128) 547

K(Mn+HL)=2.16

Mn++ gl KCl 25°C 0.10M U 1961TDb (36129) 548

K(Mn+HL)=2.19

C5H4N4O HL Hypoxanthine CAS 68-94-0 (1174)

6-Hydroxypurine;

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

Mn++ gl NaClO4 25°C 0.10M U TIH K1=3.50 B2= 5.80 1979RPb (36192) 549

Medium: KClO4. Data for 35 and 45 C and for I=0.05 and 0.20 M at 45 C.

DH(K1)=-87.9 kJ mol⁻¹, DS(K1)=-228 J K⁻¹ mol⁻¹; DH(K2)=28.4, DS(K2)=139.

Mn++ gl KNO3 45°C 0.10M U K1=6.85 1971TKc (36193) 550

Mn++ gl oth/un 20°C 0.01M U K1=2.4 1953ALa (36194) 551

C5H4N4O2 HL Xanthine CAS 69-89-6 (4305)

Xanthine;

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

Mn++ gl NaNO3 25°C 0.10M U K1=1.54 1991KMa (36206) 552

C5H4N4S HL 6-Purinethiol CAS 6112-76-1 (115)

6-Mercaptopurine, 6-Thiohypoxanthine;

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

Mn++ gl KNO3 45°C 0.10M U K1=6.6 1971TKc (36227) 553

C5H4O2S HL 2-Thenoic acid CAS 527-72-0 (2312)

Thiophene-2-carboxylic acid; C4H3S.COOH

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

Mn++ gl NaClO4 30°C 0.20M U T H K1=1.98 1976SKc (36259) 554

At 40 C:K1=2.17; 50 C:2.22

Mn++ gl diox/w 25°C 50% U K1=1.65 1968EGb (36260) 555

Medium: 50% dioxan, 0.1 M NaClO4

C5H5N L Pyridine CAS 110-86-1 (31)

Pyridine, Azine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	0.50M	C			K1=0.42	2002KSb (36649)	556
Mn++	cal	non-aq	25°C	100%	U	H		K1=2.74 B2=4.73 B3=5.9	1994K0a (36650)	557

Medium: CH3CN. DH(K1)=-25.3, DH(B2)=-49, DH(B3)=-83 kJ mol⁻¹.

Mn++ cal non-aq 25°C 100% U H K1=-0.07 1993K0a (36651) 558

Medium: dimethylformamide, 0.1 M Et4NClO4. DH=-16.7 kJ mol⁻¹.

Mn++	vlt	NaClO4	30°C	0.50M	C	TI		K1=0.95 B2= 1.23 B3=1.00 B4=1.65 B5=2.00 B6=2.61	1982Knd (36652)	559
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Method: polarography. Data for 30 and 40 C. Also data for 10 and 20% DMF/H2O and formamide/H2O.

Mn++	gl	KNO3	25°C	0.50M	U			K1=0.14 B2=-0.36	1973BJa (36653)	560
Mn++	gl	NaClO4	25°C	1.0M	U	H		K1=1.86 K3=0.90 K4=0.60	1963ABa (36654)	561

By calorimetry: DHi(average)=-10.0 kJ mol⁻¹. DS(K1)=4 J K⁻¹ mol⁻¹, DS(K2)=-8, DS(K3)=-17, DS(K4)=-21

Mn++ gl oth/un 25°C 0.50M U K1=0.14 1950BJa (36655) 562

Medium: 0.5 M C5H5N.HNO3

C5H5NOS (4389)

2-Mercaptopyridine N-oxide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	vlt	oth/un	25°C			U			1997GAb (36721)	563
								Keff(Mn+L)=3.76		

Medium: phosphate buffer, pH 6.8. Concentration not stated.

C5H5NO2 HL CAS 16867-04-2 (2316)

2,3-Dihydroxypyridine, 3-Hydroxypyridin-2(1H)-one; C5H3N(OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	50%	U			K1=5.91 B2=10.69	1970GDa (36792)	564

Medium: 50% dioxan, 0.1 M NaClO4

Mn++ gl NaClO4 25°C 0.10M U K1=4.61 B2=8.32 1970GDa (36793) 565

C5H5NO2 HL CAS 35940-93-3 (3618)

3-Furancarboxaldehyde oxime (3-Furfuraldoxime); C4H3O.CH(:N.OH)

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

Mn++ gl diox/w 20°C 60% U I K1=4.24 1979GBd (36818) 566

C5H5N2Br L CAS 1072-97-5 (2630)

5-Bromo-2-aminopyridine; C5H3N(Br)(NH2)

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

Mn++ gl NaNO3 25°C 0.50M C K1=-0.03 2002KSb (36860) 567

C5H5N5 L Adenine CAS 73-24-5 (237)

6-Aminopurine; H2N.C5H3N4

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

Mn++ gl NaNO3 25°C 0.10M C M K1=8.29 2000SSd (36972) 568

K(Mn+HL)=3.30

K(Mn+HL+OH)=12.67

K(MnHL+OH)=9.31

Also data for ternary complexes.

Mn++ gl NaNO3 25°C 0.10M U K1=4.25 1996SGa (36973) 569

Mn++ gl KNO3 45°C 0.10M U K1=3.39 1971TKc (36974) 570

C5H5N5O L CAS 700-02-7 (3033)

Adenine N-Oxide;

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

Mn++ gl oth/un 25°C ? U K1=2.13 1960PEb (37004) 571

C5H5N5S H3L 6-Thioguanine CAS 3647-48-1 (4307)

2-Amino-6-mercaptopurine;

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

Mn++ gl KNO3 45°C 0.10M U 1973TKa (37012) 572

K(Mn+H2L)=3.0

C5H5O2F3 HL CAS 367-57-7 (163)

1,1,1-Trifluoropentane-2,4-dione; CF3.CO.CH2.CO.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	dis	NaClO4	25°C	1.0M	C	M	K1=0.94 B2= 2.96 K(MnL2(org)+A(org))=5.43 K(MnL2(org)+2A(org))=9.16	1977SMe (37058)	573
Method: distribution from 1.0 M NaClO4 into CCl4/HL/tri-octylposphine oxide (A). K(Mn+2HL(org)=MnL2(org)+2H)=-10.28.									

C5H6		HL	Cyclopentadiene	CAS	542-92-7		(4288)		
Cyclopentadiene; cyclo(-CH:CH.CH2.CH:CH-)									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	sp	oth/un	25°C	dil	U		B2=14.3	1972BSf (37079)	574
Medium: NaOH									

C5H6N2		L	2-Aminopyridine	CAS	504-29-0		(1478)		
2-Aminoazine, 2-Pyridylamine; C5H4N.NH2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	0.50M	C		K1=0.13	2002KSb (37129)	575

Mn++	gl	KNO3	25°C	0.10M	U	TIH	K1=2.19 B2=5.43	1976BBe (37130)	576

C5H6N2O		HL					(3035)		
2-Aminopyridine 1-oxide; C5H4N(-O)(NH2)									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	sp	diox/w	25°C	50%	U			1963SBa (37204)	577
							K(Mn+HL)=0.75		
Medium: 50% dioxan, 0.5 M NaClO4									

C5H6N2O2		HL	Thymine	CAS	65-71-4		(413)		
2,4-Dihydroxy-5-methylpyrimidine; C4HN2(CH3)(OH)2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	U	T H	K1=3.52	1983KSa (37279)	578

Mn++	gl	KNO3	35°C	0.10M	U		K1=3.39 B2=6.69	1982TSa (37280)	579

Mn++	gl	KNO3	45°C	0.10M	U		K1=3.4	1974KKa (37281)	580

C5H6N2O2		HL					CAS 3326-71-4 (2607)		
2-Furanecarboxylic acid hydrazide; C4H3O.CONH.NH2									

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

Mn++ gl none 25°C 0.0 C I K1=2.170 1996RRb (37306) 581
Data for 10-60% v/v DMF/H2O. In 50% DMF/H2O, K1=2.625.

C5H6N2O2S HL CAS 15112-09-1 (8298)
N-Methyl-2-thiobarbituric acid;

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

Mn++ gl NaClO4 31°C 0.10M U T H K1=5.23 B2= 9.10 1984SJa (37326) 582
Also data for 18 and 42 C. DH(K1)=-41.9 kJ mol⁻¹, DS(K1)=-38.2 J K⁻¹ mol⁻¹
DH(K2)=-30.8, DS(K2)=-27.5.

C5H6N6 HL Diaminopurine CAS 1904-98-9 (4290)
2,6-Diaminopurine;

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

Mn++ gl KNO3 45°C 0.10M U K1=7.5 1973TKa (37338) 583

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

Mn++ ix oth/un 25°C 0.16M U K1=1.77 1957LWc (37363) 584

C5H6O7 H3L (8107)
Carboxymethyltartronic acid;

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

Mn++ gl KCl 25°C 0.10M C K1=3.76 1984MMg (37490) 585
K(MnL+H)=2.84

C5H7N3 L CAS 42166-50-7 (4291)
2-Pyridylhydrazine; C5H4N.NH.NH2

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

Mn++ EMF NaNO3 20°C 0.10M U K1=2.64 1971ANa (37583) 586

C5H7N3O2 L (6254)
1-Carbamido-3-methyl-pyrazol-5-one; CH3.C3H2N2(:O).CO.NH2

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

Mn++ gl diox/w 25°C 50% U K1=4.60 B2=10.24 1979PDa (37598) 587

C5H8N2 L Di-Me-Pyrazole CAS 67-51-6 (369)

3,5-Dimethyl-1,2-diazole; C3H2N2(CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	KNO3	25°C	0.50M	U		K1=0.27 B2=0.90	1989BLa (37678)	588
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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
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Mn++	dis	oth/un	30°C	0.26M	U	I		1990SBa (38021)	589
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Keff=3.40

In NH4 acetate, pH 7.24, using HPLC. Data also given for 20% MeOH/water

Mn++	vlt	NaClO4	25°C	0.10M	C		K1=2.60 B2= 4.30	1984KCb (38022)	590
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B3=6.30

Method: polarography. Medium pH 9.2

Mn++	oth	NaClO4	25°C	0.10M	C	I	R	K1=3.91 B2=6.82	1982SLc (38023)	591
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IUPAC evaluation. I=0 corr.: K1=4.21, B2=7.3

Mn++	dis	NaClO4	25°C	1.0M	C	M		K1=4.09 B2= 6.98	1977SMe (38024)	592
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K(MnL2(org)+A(org))=2.96

K(MnL2(org)+2A(org))=4.96

Method: distribution from 1.0 M NaClO4 into CCl4/HL/tri-octylphosphine oxide (A). K(Mn+2HL(org)=MnL2(org)+2H)=-11.8.

Mn++	EMF	oth/un	25°C		?	U		K1=5.70 B2=10.50	1968BDb (38025)	593
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Mn++	gl	NaClO4	25°C	0.10M	U	H		K1=4.07	1968GFa (38026)	594
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By calorimetry: DH(K1)=-6.3 kJ mol-1, DS=58.5 J K-1 mol-1

Mn++	gl	oth/un	20°C	0.0	U	T	H	K1=4.24 B2=7.35	1955IFb (38027)	595
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DH(K1)=-10 kJ mol-1, DS=46; DH(K2)=-20, DS=-7.5. 10 C: K1=4.28, K2=3.25;

30 C: K1=4.18, K2=3.07; 40 C: K1=4.11, K2=2.96

Mn++	gl	diox/w	30°C	75%	U		K1=8.15 B2=15.02	1953UFb (38028)	596
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C5H8O2S HL CAS 19418-11-2 (408)

Tetrahydrothiophene-2-carboxylic acid; C4H7S.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	diox/w	25°C	50%	U		K1=1.80	1969SGa (38159)	597
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Medium: 50% dioxan, 0.1 M NaClO4

C5H8O3 HL Laevulinic acid CAS 123-76-2 (941)

4-Ketopentanoic acid; CH3.CO.CH2.CH2.CO.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.10M	U		K1=0.75 B2=1.59	1983LTa (38171)	598

C5H8O3		HL					CAS 16874-33-2	(2493)	
Tetrahydrofuran-2-carboxylic acid; C4H7O2.COOH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	50%	U		K1=2.36	1969SGa (38181)	599
Medium: 50% dioxan, 0.1 M NaClO4									

C5H8O4		H2L					CAS 110-94-1	(420)	
Pentanedioic acid; HOOC.CH2.CH2.CH2.COOH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	ix	oth/un	25°C	0.16M	U		K1=1.13	1957LWc (38332)	600

C5H8O4S		H2L					CAS 36303-63-6	(988)	
3-Thiahexane-1,6-dioic acid; HOOC.CH2.S.CH2.CH2.COOH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	C		K1=1.70	1975LPa (38382)	601

C5H9NO2		HL					CAS 14401-90-2	(6205)	
Pent-2,4-dione monoxime; CH3.CO.CH2.C(:NOH).CH3									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	25°C	75%	U		K1=6.3 B2=9.50	1986BTa (38473)	602
Medium: 75% MeOH/H2O, 0.1 M NaClO4									

C5H9NO2		HL					CAS 147-85-3	(44)	
Pyrrolidine-2-carboxylic acid; C4H8N.COOH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	nmr	none	27°C	0.0	U		K1=2.84 B2=5.53	1987GFb (38628)	603
B3=6.74									
K(Mn+HL)=1.15									
K(MnL+HL)=1.53									
K(MnL2+HL)=0.17									
Mn++	gl	KNO3	37°C	0.15M	U		K1=2.84 B2=5.53	1969CPc (38629)	604
B3=6.74									
K(Mn+HL)=1.50									
K(MnL+HL)=1.74									
K(MnL+H2O=Mn(OH)L+H)=-9.95									

Mn++	gl	KCl	25°C	0.10M	U		K1=3.34		1952KRb (38630)	605
Mn++	gl	oth/un	20°C	0.03M	U		B2=5.5		1950ALa (38631)	606

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
Mn++	gl	KNO3	30°C	0.10M	C		K1=3.45		1979HAa (38742)	607

C5H9NO3S		H2L	Thiopronin			CAS 1953-02-2			(2162)	
N-2-Mercaptopropanoyl-glycine; CH3.CH(SH).CO.NH.CH2.COOH										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KNO3	22°C	0.10M	U		K1=2.71	B2= 4.84	1975SHa (38785)	608

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
Mn++	gl	NaNO3	25°C	0.10M	C	M	K1=4.04		2000KAb (39093)	609
							K(MnA+L)=4.25			
H2A=Dipicolinic acid.										
Mn++	gl	KNO3	25°C	0.10M	C	M	K1=4.11		1999AAa (39094)	610
							K(MnL+A)=3.70			
							B(MnLA)=7.81			
							K(MnL+B)=3.60			
							B(MnLB)=7.71			
HA=MOPSO, HB=MOPS.										
Mn++	gl	KNO3	25°C	0.10M	C	M			1989MAAd (39095)	611
							K(MnA+L)=8.54			
							B(MnAL)=13.59			
H2A is N-(2-acetamido)imino diethanoic acid.										
Mn++	gl	KNO3	25°C	0.10M	M		K1=2.98	B2= 5.53	1981GVa (39096)	612
Mn++	gl	KNO3	25°C	0.10M	U		K1=4.09	B2=7.62	1976GPd (39097)	613
Mn++	oth	KNO3	20°C	0.10M	U		K1=3.4		1964JOa (39098)	614
Method: paper electrophoresis										
Mn++	gl	oth/un	20°C	0.01M	U		K1=3.3		1952ALa (39099)	615

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
Mn++	vlt	NaCl04	25°C	0.10M	U			K2=4.0	1969VPa (39262)	616
Method: amperometry										
Mn++	cal	KN03	20°C	0.10M	U	H			1965ANa (39263)	617
DH(K1)=2.3 kJ mol ⁻¹ , DS=111.2 J K ⁻¹ mol ⁻¹ , DH(B2)=1.0,, DS=186.4										
Mn++	EMF	oth/un	25°C	->0	U	H			1956MAa (39264)	618
Method: H electrode. DG(K1)=-33.4 kJ mol ⁻¹ , DH=0, DS=108.8										
Mn++	gl	KCl	20°C	0.10M	U			K1=5.40 B2=9.56	1955SAa (39265)	619

 C5H9N3 L Histamine CAS 51-45-6 (103)
 4(5)-(2'-Aminoethyl)imidazole; C3H3N2.CH2.CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KN03	35°C	0.10M	C	M			1985RRc (39540)	620
K(Mn+HL)=3.02 K(MnL(cytidine)+H)=3.48 K(Mn+HL+cytidine)=8.36										
Mn++	gl	KCl	25°C	0.10M	U	M		K1=3.33	1984DMc (39541)	621
Mn++	gl	KN03	15°C	0.20M	U	T		K1=2.98	1971RMd (39542)	622
K1(40 C)=2.95										

 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
Mn++	gl	KCl	30°C	0.10M	U			K1=2.0 K(Mn+HL)=1.5	1967GNb (39568)	623
Mn++	cal	KN03	30°C	0.10M	U	H			1967GNC (39569)	624
DH(K1)=30.1 kJ mol ⁻¹ , DS=138 J K ⁻¹ mol ⁻¹										

 C5H9N3O5 H2L CAS 4438-86-2 (3622)
 Semicarbazone-1,1-diethanoic acid; H2N.CO.NH.N(CH₂.COOH)₂

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KCl	30°C	0.10M	U			K1=2.6 K(Mn+HL)=1.6	1967GNb (39597)	625
Mn++	cal	KN03	30°C	0.10M	U	H			1967GNC (39598)	626

DH(K1)=13.4 kJ mol⁻¹, DS=92 J K⁻¹ mol⁻¹

C5H9N3S HL (1822)

2-Mercaptohistamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaClO4	25°C	0.10M	U		K1=5.35 B2= 9.60	1977STc (39609)	627

C5H10N07P H4L PMIDA CAS 5994-61-6 (2433)

N-(Phosphonomethyl)iminodiethanoic acid; H2O3P.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	C		K1=9.8 K(MnL+H)=5.89 K(MnHL+H)=4.6 K(MnL+OH)=2.7	2000SDa (39679)	628

Mn++	gl	NaCl	25°C	0.10M	U		K1=8.12 B(MnHL)=13.81	1993DLA (39680)	629
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Mn++	oth	KNO3	RT	0.10M	C		K(Mn+HL)=3.5	1980MVA (39681)	630
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Method: paper electrophoresis.

Mn++	gl	KCl	30°C	0.10M	U		K1=8.0	19580Mb (39682)	631
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C5H10N2O2 HL (3039)

Dimethylglyoxime O-methyl ether; CH3.C(:N.OH).C(:N.O.CH3).CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	50%	U		K1=6.18 B2=11.60	1954CFa (39708)	632

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
Mn++	gl	NaClO4	25°C	0.10M	U		K1=2.94	1973TSb (39824)	633
Mn++	gl	NaClO4	25°C	3.00M	U		K1=2.86 B2=4.62	1973WIA (39825)	634

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
Mn++	gl	KCl	20°C	0.20M	U		K1=1.93	1982KRc (39891)	635

Using EPR spectroscopy: K1=1.85

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

Mn++ gl KCl 20°C 0.20M U K1=2.22 1982KRc (39940) 636

Using EPR spectroscopy: K1=1.79

C5H10N2O3 HL Gly-Sar CAS 29816-01-1 (2331)

Glycyl-sarcosine; H2N.CH2.CO.N(CH3).CH2.COOH

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

Mn++ gl oth/un 25°C 0.02M U K1=2.29 B2=4.62 1956DRb (40028) 637

C5H10N2O3 HL Sar-Gly (2332)

Sarcosyl-glycine; CH3.NH.CH2.CO.NH.CH2.COOH

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

Mn++ gl oth/un 25°C 0.02M U 1956DRb (40039) 638

K(CuLOH+H)=3.85

K(CuL(OH)2+H)=9.46

Mn++ gl oth/un 25°C 0.02M U K1=0.4 1956DRb (40040) 639

C5H10N4O5 HL (2817)

Biacetylmonoxime-thiosemicarbazone; CH3.C(:N.NH.CS.NH2).C(:N.OH).CH3

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

Mn++ gl alc/w 30°C 50% U T H K1=6.35 1992HRa (40131) 640

Medium: 50% v/v EtOH/H2O, 0.1 M NaClO4. Data for 40 and 50 C.

DH(K1)=-59.5 kJ mol⁻¹, DS(K1)=75.7 J K⁻¹ mol⁻¹.

C5H11NO2 HL Valine CAS 72-18-4 (43)

2-Amino-3-methylbutanoic acid; H2N.CH(CH(CH3)2)COOH

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

Mn++ gl KNO3 25°C 0.10M C M 1989MAd (40729) 641

K(MnA+L)=3.98

B(MnAL)=9.03

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

Mn++ gl NaCl 20°C 0.15M M K1=2.86 1985Vda (40730) 642

Mn++ gl KNO3 37°C 0.15M U T K1=2.34 B2=3.97 1969CPc (40731) 643

B3=5.19
 K(Mn+HL)=1.16
 K(MnL+HL)=1.07
 K(MnL+H2O=Mn(OH)L+H)=-10.41

 Mn++ gl oth/un 25°C 0.01M U K1=2.84 B2=5.56 1949MMa (40732) 644

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

 Mn++ gl NaNO3 25°C 0.10M C M K1=4.92 2000KAb (40840) 645
 K(MnA+L)=3.60

H2A=Dipicolinic acid.

 Mn++ gl NaCl 20°C 0.15M M K1=2.90 1985Vda (40841) 646

 Mn++ gl NaCl 20°C 0.15M U M K1=2.90 1983VDb (40842) 647

 Mn++ EMF KNO3 20°C 0.10M U T T K1=3.30 B2=5.19 1973BSf (40843) 648
 Temperature range 20-60 C
 K1(40 C)=3.19, K1(60 C)=3.03, B2(40 C)=5.12, B2(60 C)=5.06

 C5H11NO2 HL DL-Valine CAS 516-06-3 (186)
 DL-2-Amino-3-methylbutanoic acid; H2N.CH(CH(CH3)2).COOH

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

 Mn++ gl NaCl 20°C 0.15M U M K1=2.86 1983VDb (40895) 649

 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

 Mn++ gl KNO3 25°C 0.10M C M K1=4.88 1999AAa (41106) 650
 K(MnL+A)=3.73
 B(MnLA)=8.61
 K(MnHL+B)=1.89
 K(MnHL+C)=1.20

HA=MOPSO, HB=MOPS, HC=DIPSO.

 Mn++ EMF KNO3 20°C 0.10M U T K1=2.87 B2=4.92 1973BSf (41107) 651
 20-60 C
 K1(40 C)=2.79, K1(60 C)=2.72, B2(40 C)=4.83, B2(60 C)=4.75

 Mn++ gl KCl 25°C 0.10M U T K1=2.89 1971SSc (41108) 652
 K1(35 C)=2.85, K1(45 C)=2.78

Mn++ oth KNO3 20°C 0.10M U K1=3.2 B2=4.70 1964JOa (41109) 653
Method: paper electrophoresis

Mn++ gl KNO3 25°C 0.10M U K1=2.77 B2=4.57 1964LMa (41110) 654

C5H11NS2 HL CAS 147-84-2 (2126)
Diethyldithiocarbamic acid; (CH3.CH2)2N.CSSH

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

Mn++ ISE non-aq 25°C 100% U K1=4.9 B2=9.3 1984LSb (41357) 655
B3=12.6

Medium: DMSO, 0.1 M NaClO4; Ag-electrode

C5H11N2O7P H3L CAS 6665-42-5 (3636)
O-Phosphorylserylglycine;

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

Mn++ gl KCl 25°C 0.15M U K1=2.63 19620Sa (41383) 656
K(Mn+HL)=1.89
K(Mn+MnL)=1.54

C5H11O8P H2L Ribose-5-phosph CAS 4300-28-1 (2756)
Ribose-5-phosphoric acid, Ribofuranoside 5 Phosphoric acid;

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

Mn++ gl NaNO3 25°C 0.10M C K1=2.20 1988MSa (41422) 657

C5H12N2O2 HL Ornithine CAS 1069-31-4 (46)
2,5-Diaminopentanoic acid; H2N.CH2.CH2.CH(NH2)COOH

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

Mn++ gl KNO3 25°C 0.10M U 1970CMc (41578) 658
K(Mn+HL)=1.60

Mn++ gl oth/un 20°C 0.01M U K1=<2 1952ALa (41579) 659

C5H12O3S4 H3L CAS 19872-38-9 (4331)
2,3-Dimercaptopropylthioethanesulfonic acid;

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

Mn++ EMF KNO3 ? 0.10M U K1=16.00 B2=21.00 1973RPa (41657) 660

C5H12O4S3 H3L CAS 19872-36-7 (4332)
2,3-Dimercaptopropanoxyethanesulfonic acid; HS.CH2.CH(SH).CH2.O.CH2.CH2.HSO3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	EMF	KNO3	?	0.10M	U		K1=16.65 B2=23.25	1973RPa (41671)	661

C5H12O5S4 H3L CAS 35617-14-2 (4333)									
2,3-Dimercaptopropanesulfonethanesulfonic acid; HS.CH2.CH(SH).CH2.SO2.CH2CH2.HSO3									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	EMF	KNO3	?	0.10M	U		K1=15.70 B2=20.70	1973RPa (41702)	662

C5H13NO7P2 H4L CAS 32545-75-8 (6890)									
N-Methylenedi(phosphonic acid)tetrahydrooxazine; OC4H8N.CH(P03H2)2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.10M	M		K1=7.05 K(Mn+HL)=6.58	1978GMf (41765)	663

C5H13NO8P2 H4L (3714)									
N-(2'-Carboxyethyl)iminobis(methylenephosphonic acid)									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	U		K1=7.24	1965WRa (41770)	664

C5H14NO5P H2L CAS 5994-60-5 (1302)									
N,N'-Bis(2-hydroxyethyl)aminomethylphosphonic acid; (HO.CH2.CH2)2N.CH2.P03H2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaClO4	25°C	0.10M	U		K1=4.61	1981BGb (41845)	665

C5H15NO7P2 H4L AMOK CAS 63132-39-8 (1350)									
1-Hydroxy-3-N,N-dimethylaminopropane-1,1-diphosphonic acid; Me2N.CH2.CH2.C(OH)(P03H2)2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.10M	U		K1=8.33 K(Mn+HL)=8.09	1979KBa (41956)	666

C6H3N3O7 HL Picric acid CAS 88-89-1 (593)									
2,4,6-Trinitrophenol; HO.C6H2(NO2)3									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	sp	oth/un	21°C	0.40M	U		K1=1.85	1955BKa (42131)	667
Medium:0.2-0.6(some EtOH)									

C6H4N2 L CAS 100-48-1 (321)
4-Cyanopyridine; C5H4N.CN

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

Mn++ sp non-aq 23°C 100% U T M 1978JSa (42201) 668

K(Mn(TPP)+L)=4.00

Medium: toluene. Mn(TPP)=meso-Tetraphenylporphinatomanganese(II).

At 40 C: K=3.0; 0 C: 4.0

C6H4N2O5 HL CAS 50-28-5 (505)

2,4-Dinitrophenol; HO.C6H3(NO2)2

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

Mn++ sp oth/un 21°C 0.40M U K1=0.35 1955BKa (42234) 669

Medium: 0.2-0.6 (some EtOH)

C6H4N4O HL CAS 900-47-0 (3083)

4-Hydroxypteridine;

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

Mn++ gl oth/un 20°C 0.01M U K1=2.4 B2=4.5 1953ALa (42279) 670

C6H4O4 H2L CAS 615-94-1 (1280)

2,5-Dihydroxy-1,4-benzoquinone;

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

Mn++ gl KCl 30°C 25% M TIH K1=3.91 1991GDe (42307) 671

Medium: 35% Dioxan/H2O, 0.1 M NaClO4. Other solvents and backgroundf concs.

C6H5NO2 HL Picolinic acid CAS 98-98-6 (391)

2-Pyridine-carboxylic acid; C5H4N.COOH

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

Mn++ gl NaNO3 20°C 0.10M U K1=3.57 B2=6.32 1960ANb (42566) 672

K3=1.8

Mn++ gl oth/un 25°C 0.0 U K1=3.88 B2=7.08 1957LUa (42567) 673

Mn++ ix oth/un 22°C ? U K1=3.6 B2=4.6 1957WFa (42568) 674

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

Mn++	gl	NaCl	25°C	0.10M	U	K1=1.91	2001DSb (42676)	675
Mn++	gl	KNO3	25°C	0.10M	U	K1=8.80 K3=4.60	B2=13.82 1988ZMa (42677)	676

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
Mn++	gl	NaCl04	25°C	0.10M	U T	K1=2.88	B2=4.74 1981RRb (42837)	677
Temp range 25-50. K1 at 50 C = 2.51; K2 at 50 C = 1.70								

C6H5NO4		H2L				CAS 6665-98-1	(2685)	
1,2-Dihydroxy-3-nitrobenzene; O2N.C6H3(OH)2								
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Mn++	gl	KCl	25°C	0.10M	M	K1=7.22	B2=12.5 1985HAB (42862)	678

C6H5NO4		H2L				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
Mn++	gl	NaCl04	30°C	0.05M	U TIH	K1=7.97	B2=14.17 1986NDa (42933)	679
I=0.1, 40 C: K1=6.80, B2=12.37; 50 C: K1=6.40, B2=11.71								
I=0.1, 30 C: K1=7.01, B2=12.91; I=0.2, K1=6.88, B2=11.95								
Mn++	gl	KCl	25°C	0.10M	M	K1=6.83	B2=11.72 1984HAc (42934)	680
Mn++	gl	KNO3	30°C	0.10M	U	K1=6.51	B2=11.25 1964MTb (42935)	681

C6H5NO4		HL				CAS 78901-24-3	(885)	
4-Hydroxypyridine-2-carboxylic acid N-oxide; C5H3N(O)(OH).COOH								
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Mn++	gl	NaCl04	30°C	0.10M	U T	K1=3.33	B2=5.56 1982RRa (42970)	682

C6H5N3		L				CAS 273-21-2	(2033)	
4-Azabenzimidazole, 1H-Imidazo[4,5-b]pyridine;								
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Mn++	gl	KNO3	25°C	0.50M	U	K1=0.85	1981LMb (42989)	683

C6H5O2Cl		H2L				CAS 2138-22-9	(1656)	
1,2-Dihydroxy-4-chlorobenzene; Cl.C6H3(OH)2								

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	30°C	0.10M	U		K1=6.82 B2=11.48	1964MTb (43083)	684

C6H6NBr L (8782)
5-Bromo-2-methylpyridine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	0.50M	C		K1=-0.03	2002KSb (43195)	685

C6H6NCl L CAS 10445-91-7 (8781)
4-(Chloromethyl)pyridine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	0.50M	C		K1=0.37	2002KSb (43211)	686

C6H6NO6P H2L CAS 330-13-2 (5865)
4-Nitrophenylphosphoric acid; NO2.C6H4.O.PO.(OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	0.10M	C		K1=1.87	1988MSa (43248)	687

C6H6N2O HL CAS 873-69-8 (1258)
Pyridine-2-aldoxime; C5H4N.CH:NOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaClO4	25°C	0.30M	U		K1=5.2 B2=9.10	1966BEa (43301)	688

C6H6N2O2 HL Aminonicotinic CAS 5345-47-1 (903)
2-Aminopyridine-3-carboxylic acid; H2N.C5H4N.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	35°C	0.15M	U T H		K1=2.82	1980SKb (43354)	689

Temperature range is 25-45C. At 35C, DH1=-7.24 kJ mol⁻¹;
DS1=30.59 J mol⁻¹ K⁻¹

Mn++	gl	diox/w	35°C	50%	U		K1=3.21	1980SKb (43355)	690
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C6H6N2O2 HL (8281)
3-Hydroxy-2-amidocarboxypyridine, Hydroxypicolinamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	C		K1=3.81 B2= 7.17	1990ARA (43376)	691

C6H6N2O4 L Methyl orotate CAS 6153-44-2 (2612)
2,4-Dihydroxypyrimidine-6-carboxylic acid methyl ether

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaCl	19°C	0.15M	U		K1=2.94	1979DZc (43459)	692

C6H6N2O4 HL Methylorotic CAS 706-36-2 (2611)
3N-Methyl-2,4-dihydroxypyrimidine-6-carboxylic acid, methylorotic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaCl	20°C	0.15M	U		K1=4.60 K(Mn+HL)=2.27	1979DZc (43474)	693

C6H6N4 L 9-Methylpurine CAS 20427-22-9 (2480)
9-Methylpurine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaCl04	25°C	1.00M	U		K1=0.2	1983ALa (43493)	694

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
Mn++	gl	NaCl04	30°C	0.10M	M	TIH	K1=7.27 B2=13.20	1986DNa (43785)	695

Data for 0.05-0.20 M NaCl04. Extrapol. to I=0.0, K1=7.45, B2=13.70.
Data for 30-50 C. DH(K1)=-10.9 kJ mol⁻¹.

Mn++	gl	KNO3	35°C	0.10M	C		K1=6.55	1985RRh (43786)	696
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Mn++	gl	KCl	25°C	0.20M	C	M	K1=7.53 B2=11.95 B(Mn(ala)L)=9.35	1983KGb (43787)	697
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Mn++	gl	KNO3	25°C	1.0M	U	I M	K(Mn+H2L=MnHL+H)=-6.41 K(Mn+H2L=MnL+2H)=-14.807 K(MnL+H2L=MnL2+2H)=-16.996	1968TMa (43788)	698
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In 50% MeOH, 0.1 M KNO3: K(Mn+H2L=Mn(OH)(HL)+2H)=-14.66
K(Mn+2H2L=Mn(HL)2+2H)=-11.46

Mn++	gl	KCl	25°C	0.10M	U		K1=7.52 B2=13.22	1966JNa (43789)	699
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C6H6O2S HL (3683)
2-Acetyl-3-hydroxythiophene; C4H2S(CO.CH3)OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++ sp diox/w 25°C 10% U K1=2.9 1966PSb (43909) 700
 Medium: 10% dioxan, 0.1 M NaClO4. By glass electrode, K1=3.0

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

Mn++ gl NaClO4 30°C 0.10M M TIH 1986DNa (43966) 701
 K(Mn+HL)=6.41
 K(Mn+2HL)=10.82

Data for 0.05-0.20 M NaClO4. Extrap. to I=0.0, K(Mn+HL)=6.55,
 K(Mn+2HL)=11.47. Data for 30-50 C. DH(Mn+HL)=-31.9 kJ mol⁻¹.

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

Mn++ gl NaClO4 25°C 2.00M U H K1=4.19 B2=7.49 1978GHa (44093) 702
 K3=1.83
 DH(K1)=-6.48 kJ mol⁻¹, DH(K2)=-8.59, DH(K3)=-8.03

 Mn++ gl diox/w 30°C 50% U K1=6.81 B2=11.81 1957CWa (44094) 703

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

Mn++ gl NaClO4 25°C 2.00M U H K1=3.67 B2=6.67 1978GHa (44229) 704
 K3=1.82
 DH(K1)=-5.41 kJ mol⁻¹, DH(K2)=-9.41, DH(K3)=-10.95

 Mn++ gl NaClO4 25°C 2.00M C T H K1=3.66 B2=6.65 1975GHa (44230) 705
 B3=8.50

DH(K1)=-4.6 kJ mol⁻¹, DS=55.1 J K⁻¹ mol⁻¹; DH(K2)=-17.0, DS=52.7
 At 20 C, K1=3.70, B2=6.67, B3=8.40; at 40 C, K1=3.64, B2=6.60, B3=8.50

 Mn++ gl KNO3 25°C 0.10M U K1=3.95 B2=6.78 1962MUa (44231) 706

 Mn++ gl diox/w 30°C 75v% U K1=9.81 B2=17.28 1960KFc (44232) 707

C6H6O5S H3L CAS 7134-09-0 (3687)
 3,4-Dihydroxybenzenesulfonic acid; (HO)2.C6H3.SO3H

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

Mn++ gl KNO3 30°C 0.10M U K1=7.87 B2=12.53 1963MNC (44283) 708

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	ix	oth/un	25°C	0.16M	U			K1=2.47	1957LWc (44298)	709

C6H6O6 H3L trans-Aconitic CAS 4023-65-8 (3065)
 trans-1,2,3-Propenetricarboxylic acid; HOOC.CH:C(COOH)CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	ix	oth/un	25°C	0.16M	U			K1=2.27	1957LWc (44305)	710

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
Mn++	gl	NaClO4	30°C	0.05M	U	TIH		K1=8.89 B2=15.69	1986NDa (44470)	711
I=0.1, 40 C: K1=8.59, B2=15.20; 50 C: K1=8.29, B2=14.82										
I=0.1, 30 C:K1= 8.69, B2=15.40; I=0.2, 30 C:K1= 8.49, B2=14.90										

Mn++	gl	KNO3	25°C	0.10M	C	M		K1=8.30 B2=13.74	1983OZa (44471)	712
B3=17.57										
B(MnHL)=15.30										
B(MnL(bpy))=11.24										

Mn++	gl	NaClO4	25°C	1.00M	C			K1=7.20 B2=12.75	1974GSc (44472)	713
B3=16.28										
B(MnHL)=13.88										

Mn++	gl	KNO3	25°C	0.10M	U			K1=8.6	1958CGa (44473)	714
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C6H6O9 H4L Ditartronic ac (8108)
 Di(2-Propane-1,3-dioic acid)ether;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.10M	C			K1=4.51	1984MMg (44538)	715
K(MnL+H)=3.23										

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	0.50M	C			K1=0.06	2002KSb (44611)	716

C6H7N L beta-Picoline CAS 108-99-6 (324)

3-Methylpyridine; C5H4N.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	0.50M	C		K1=0.47	2002KSb (44701)	717
Mn++	cal	non-aq	25°C	100%	U	H	K1=2.9 B2=5.1 B3=6.4	1994K0a (44702)	718
Medium: CH3CN. DH(K1)=-25.8, DH(B2)=-48, DH(B3)=-79 kJ mol-1.									

Mn++	cal	non-aq	25°C	100%	U	H	K1=0.02	1993K0a (44703)	719
Medium: dimethylformamide, 0.1 M Et4NClO4. DH=-15.1 kJ mol-1.									

C6H7N L gamma-Picoline CAS 108-89-4 (325)
4-Methylpyridine; C5H4N.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	cal	non-aq	25°C	100%	U	H	K1=2.95 B2=5.28 B3=6.9	1994K0a (44827)	720
Medium: CH3CN. DH(K1)=-30.3, DH(B2)=-52, DH(B3)=-83 kJ mol-1.									

Mn++	cal	non-aq	25°C	100%	U	H	K1=0.13	1993K0a (44828)	721
Medium: dimethylformamide, 0.1 M Et4NClO4. DH(K1)=-20.6.									

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
Mn++	gl	none	20°C	0.0	U		K1=3.6	1959SIb (44934)	722

C6H7NO L CAS 586-98-1 (3094)
2-Hydroxymethylpyridine (2-pyridylmethanol); C5H4N.CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	U		K1=1	1965MTa (44967)	723

C6H7O4P H2L CAS 701-64-4 (5866)
Phenyl phosphoric acid; C6H5O.PO(OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	0.10M	C		K1=2.12	1988MSa (45232)	724

C6H8NO4P H2L (3713)
2-Pyridylmethanephosphoric acid (1'-picolyl phosphate)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++      gl  KNO3   25°C 0.10M U      K1=2.44      1968MTd (45247) 725
*****
C6H8N2          L    2-Picolylamine  CAS 29722-36-9 (502)
2-(Aminomethyl)pyridine; C5H4N.CH2NH2

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Mn++      EMF NaNO3  20°C 0.10M U      K1=2.66      1971ANa (45358) 726
*****
C6H8N2O3S      HL                      CAS 20349-92-2 (4399)
d-Tetranorbiotin;

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  diox/w 25°C 50% U      K1=1.66      1969SMc (45406) 727
Medium: 50% dioxan, 0.1 M NaClO4
*****
C6H8N2O4      H2L                      (3100)
Cyanomethyliminodiethanoic acid; NC.CH2.N(CH2.COOH)2

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  KCl    20°C 0.10M U      K1=3.50  B2=5.50  1955SAa (45418) 728
*****
C6H8N4B-      L                      (7237)
Bis(pyrazol-1-yl)borate; (C3H3N2)2BH2-

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      dis non-aq 25°C 100% U                      1996KSA (45439) 729
K(Mn+2HL=MnL2(org)+2H)=-7.16
By solvent extraction into CHCl3
*****
C6H8O5      HL                      (5458)
4-Ethyl-oxaloethanoic acid HOOC.CO.CH2.C(O)O.CH2.CH3

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      kin KCl    25°C 0.50M U      K1=1.12      1982BLb (45531) 730
K(Mn+H-1L=MnH-1L)=4.5
*****
C6H8O6      H3L    Tricarballic  CAS 99-14-9 (1620)
1,2,3-Propanetricarboxylic acid; HOOC.CH2.CH(COOH).CH2.COOH

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      ix  oth/un 25°C 0.16M U      K1=1.99      1957LWc (45568) 731
*****
C6H8O6      H2L    Ascorbic acid  CAS 50-81-7 (285)

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Ascorbic acid (Vitamin C);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KNO3	30°C	0.10M	C	M			1984BPc (45647)	732
								K(Mn(phen)+L)=4.70 K(Mn(bpy)+L)=5.80 K(Mn(en)+L)=3.12 K(Mn(baea)+L)=4.80		

K(Mn(dipropylenetriamine)+L) = 4.66; baea=bis(aminoethyl)amine

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KNO3	20°C	0.10M	U			K1=2.11	1977CAd (45702)	733

Mn++	gl	KNO3	25°C	0.05M	M			K1=3.55	1975DPb (45703)	734
------	----	------	------	-------	---	--	--	---------	-----------------	-----

C6H8O7 H3L Isocitric acid CAS 1637-73-6 (2527)
2-Hydroxy-3-carboxypentanedioic acid; HOOC.CH(OH).CH(COOH).CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	NaClO4	25°C	1.0M	U				1976PCb (45732)	735
								K(Mn+H-1L)=5.81 K(Mn+H-1L+H)=14.46 K(Mn+H-1L+2H)=18.45 K(Mn+H-1L-H)=-4.36		

Data are for DL isomeric mixture.

Mn++	gl	R4N.X	25°C	0.10M	U			K1=1.76 B2=3.06	1970GTa (45733)	736
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Mn++	ix	oth/un	25°C	0.16M	U			K1=2.55	1957LWc (45734)	737
------	----	--------	------	-------	---	--	--	---------	-----------------	-----

C6H8O7 H3L Citric acid CAS 77-92-9 (95)
2-Hydroxypropane-1,2,3-tricarboxylic acid; HOOCCH2.CH(OH)(COOH).CH2COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	C	M		K1=3.81 B2=12.83 B(MnHL)=8.15 B(Mn2H-2L2)=-6.28	1985ADc (46165)	738

B(CdMnH-2L2)=-5.75.

Mn++	nmr	R4N.X	25°C	0.05M	M	I		K1=3.74	1982FPa (46166)	739
								K1=4.28 extrapolated to I=0		

Mn++	gl	KNO3	37°C	0.15M	C			K1=3.79	1979ADb (46167)	740
------	----	------	------	-------	---	--	--	---------	-----------------	-----

B(MnHL)=7.84
 B(MnH2L)=11.37
 B(Mn2H-2L2)=-5.73

Mn++ vlt KNO3 25°C 1.0M C B2=5.72 1978SSh (46168) 741
 Method: polarography.

Mn++ gl NaClO4 37°C 0.15M C K1=3.83 1977RWc (46169) 742
 B(MnH-1L)=-3.63
 B(Mn2H-1L)=-0.07

Mn++ oth KNO3 ? 0.70M U 1970BCa (46170) 743
 K(Mn+H3L=MnH2L+H)=-1.44
 K(MnH2L=MnL+2H)=-8.6

Method: zone electrophoresis

Mn++ gl R4N.X 25°C 0.10M U K1=2.16 B2=4.15 1970GTa (46171) 744

Mn++ EMF oth/un 18°C ? U K1=3.6 1970KAe (46172) 745
 K(Mn+HL)=2.08

Mn++ con oth/un 28°C ? U K1=2.84 1962KBb (46173) 746

Mn++ gl NaClO4 33°C 0.25M U 1961PPa (46174) 747
 K(Mn+H3L=MnHL+2H)=-4.9
 K(MnL+H)=4.7
 K(MnH-1L+H)=8.5

Mn++ gl oth/un 25°C 0.15M U K1=3.67 1959LLa (46175) 748
 K(Mn+HL)=2.08

Mn++ ix NaCl 25°C 0.15M U K1=3.72 1958WIa (46176) 749

Mn++ ix oth/un 25°C 0.16M U K1=3.54 1957LWc (46177) 750

 C6H8O7P2 H3L CAS 101378-64-7 (7666)
 Phenylldiphosphoric acid;

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

Mn++ gl NaNO3 25°C 0.10M M K1=4.08 1999SSa (46346) 751

 C6H9NO6 H3L CAS 41035-84-1 (4367)
 N-Carboxymethyl-L-aspartic acid;

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

Mn++ gl KNO3 25°C 1.0M U K1=5.61 B2= 8.98 2004NKa (46379) 752
 B(MnHL)=9.52
 K(Mn(OH)+L)=6.78

For 0.5 mol/L KNO3 K1=5.87; B2=9.21; B(MnHL)=9.74; K(Mn(OH)+L)=6.93

For 0.1 mol/L KNO3 K1=6.11; B2=9.50; B(MnHL)=10.33; K(Mn(OH)+L)=7.15

C6H9NO6

H3L

NTA

CAS 139-13-9 (191)

Nitrilotriethanoic acid; N(CH2.COOH)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	NaCl	25°C	0.15M	U	M		K1=7.15 B2=10.20 B(MnL(ATP))=9.12 B(MnHL(ATP))=15.57	1983JKa (46908)	753
Mn++	gl	KNO3	25°C	0.10M	U	M		K(MnL+Gly)=1.80	1971ICa (46909)	754
Mn++	gl	KNO3	25°C	0.05M	U	M		K(MnL+Gly)=2.24	1968HAa (46910)	755
Mn++	gl	KNO3	25°C	0.08M	U	M		K(MnL+A)=2.39 K(MnL+Gly)=2.24	1968HAa (46911)	756
A=ethylvalinate										
Mn++	gl	NaCl04	25°C	0.10M	U	M		K(MnL+Arg)=1.94 K(MnL+Ser)=1.28	1968ICa (46912)	757
Mn++	gl	NaCl04	25°C	0.10M	U	M		K(MnL+GlyGly)=2.08	1968ICa (46913)	758
Mn++	gl	NaCl04	25°C	0.10M	U	M		K(MnL+Asp)=2.08 K(MnL+Glu)=2.22	1968ICb (46914)	759
Mn++	cal	KNO3	20°C	0.10M	U	H			1964HDa (46915)	760
DH(K1)=4.8 kJ mol ⁻¹ , DS=158.4 J K ⁻¹ mol ⁻¹										
Mn++	oth	KNO3	20°C	0.10M	U			K1=8.6 B2=11.60	1964J0a (46916)	761
Method: paper electrophoresis										
Mn++	dis	NaCl04	20°C	0.10M	U			K1=7.36	1963STc (46917)	762
Mn++	EMF	oth/un	30°C	0.0	U	T H		K1=8.644	1956HMa (46918)	763
Method: H electrode. K1=8.527(0 C), 8.534(10 C), 8.573(20 C) DH(K1)=14.6 kJ mol ⁻¹ , DS=214 J K ⁻¹ mol ⁻¹										
Mn++	EMF	KCl	20°C	0.10M	U	T		K1=7.44	1951SFa (46919)	764
Method: H electrode										
Mn++	gl	KCl	20°C	0.10M	U			K1=<10 K2=3.7	1948SBa (46920)	765

K(MnLOH+H)=12

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
Mn++	gl	KNO3	25°C	0.10M	C	M		K1=3.01 K(MnL+A)=3.74 B(MnLA)=6.75 K(MnL+B)=3.49 B(MnLB)=6.50 K(MnL+C)=3.51, B(MnLC)=6.52. HA=MOPSO, HB=MOPS, HC=TAPSO.	1999AAa (47577)	766
Mn++	gl	KNO3	35°C	0.10M	C	M		K1=3.85 K(Mn+HL+cytidine)=8.43 K(MnL(cytidine)+H)=3.91	1985RRc (47578)	767
Mn++	gl	KNO3	35°C	0.10M	C			K1=6.26	1985RRh (47579)	768
Mn++	gl	KCl	25°C	0.20M	C	M		K(Mn(DOPA)+L)=2.71 B(MnHL(DOPA))=20.47 K(Mn(Dopamine)+L)=2.73 B(MnHL(Dopamine))=20.81 K(MnA+L)=2.78, B(MnHLA)=19.71; K(MnB+L)=2.70, B(MnHLB)=20.26 A=Noradrenaline, B=Adrenaline, H3DOPA=3,4-dihydroxyphenylalanine	1984KDb (47580)	769
Mn++	gl	KCl	25°C	0.10M	U			K1=3.30 B2=6.26	1980DMa (47581)	770
Mn++	gl	NaClO4	25°C	3.00M	U	T		K1=3.91 B2=6.61	1970WIa (47582)	771
Mn++	gl	KNO3	15°C	0.20M	U	T		K1=3.35 B2=5.78 K1(40 C)=3.32, K2(40 C)=2.39	1969RMb (47583)	772
Mn++	gl	KNO3	37°C	0.15M	U	T		K1=3.24 B2=6.16	1967PSd (47584)	773
Mn++	gl	oth/un	20°C	0.01M	U			K1=<4	1952ALa (47585)	774
Mn++	gl	KCl	25°C	0.10M	U			K1=3.58	1952KRb (47586)	775
Mn++	gl	oth/un	25°C	0.01M	U			B2=7.74	1950MMa (47587)	776

C6H9N3O2S H2L Thiolhistidine CAS 13552-61-9 (5659)
1-Amino-2-(2-Mercaptoimidazole)-propionic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	NaClO4	25°C	0.10M	U			K1=4.07 B2=8.54	1982TSb (47641)	777

C6H9O6P H3L CAS 4408-72-4 (7015)
Phosphinotriethanoic acid; P(CH₂.COOH)₃

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++ gl NaClO4 25°C 0.10M U I K1=2.04 1979P0a (47660) 778
In 50% v/v dioxan/H2O: K1=3.99

C6H10N2O3 HL CAS 32514-11-7 (4318)
dl-Tetranordethiobiotin;

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

Mn++ gl diox/w 25°C 50% U K1=1.90 1969SMc (47710) 779

C6H10N2O5 H2L ADA CAS 26239-55-4 (2747)
N-(2-Acetamido)iminodiethanoic acid; H2N.CO.CH2.N(CH2.COOH)2

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

Mn++ g1 KNO3 25°C 0.10M C K1=5.05 1989MAd (47846) 780

Mn++ gl KNO3 25°C 0.10M C K1=4.72 B2= 6.93 1983LRc (47847) 781

Mn++ g1 KNO3 25°C 0.10M C K1=4.72 1979NAb (47848) 782

Mn++ gl KCl 20°C 0.10M U K1=4.93 B2=7.23 1955SAa (47849) 783

C6H10N2O6P2 H4L (6893)
N-(2-Pyridyl)aminomethylenedi(phosphonic acid); C5H4N.NH.CH(PO3H2)2

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

Mn++ g1 KNO3 25°C 0.10M U K1=8.90 1990GKa (47872) 784

$$\begin{aligned} K(\text{Mn}+\text{HL}) &= 8.29 \\ K(\text{Mn}+\text{H}_2\text{L}) &= 5.41 \end{aligned}$$

C6H1002S2 HL (1224)

1,2-Dithiolane-3-propanoic acid, Bisnorlipoic acid; C3H5S2.CH2CH2COOH

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

Mn++ gl NaClO4 25°C 0.10M C K1=2.11 1978SPd (47975) 785

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
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Mn++ gl diox/w 30°C 75% U K1=8.78 1973AAa (48015) 786

 C6H1004S H2L CAS 42715-54-8 (986)
 2,2'-Thiodipropanoic acid; HOOC.CH(CH3).S.CH(CH3).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	KNO3	25°C	0.10M	C		K1=2.1	1975LPa (48126)	787
------	----	------	------	-------	---	--	--------	-----------------	-----

C6H1004S H2L CAS 111-17-1 (139)

3,3'-Thiodipropanoic acid; HOOC.CH2.CH2.S.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	NaClO4	25°C	0.10M	U	TIH	K1=2.72	1983DBb (48184)	788
------	----	--------	------	-------	---	-----	---------	-----------------	-----

Mn++	gl	KNO3	25°C	0.05M	M		K1=3.30	1975DPb (48185)	789
------	----	------	------	-------	---	--	---------	-----------------	-----

Mn++	gl	KNO3	25°C	0.10M	C		K1=1.77	1975LPa (48186)	790
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Mn++	gl	NaClO4	25°C	0.10M	U		K1=0.5	1968SKd (48187)	791
------	----	--------	------	-------	---	--	--------	-----------------	-----

C6H1004S2 H2L CAS 7244-02-2 (438)

1,2-Bis(carboxymethylthio)ethane; HOOC.CH2.S.CH2.CH2.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	NaClO4	25°C	0.10M	U		K1=1.04	1971PPb (48246)	792
------	----	--------	------	-------	---	--	---------	-----------------	-----

K(Mn+HL)=0.7

C6H1004S2 H2L CAS 1119-62-6 (3697)

3,3'-Di(thiopropoic acid); HOOC.CH2.CH2.S.S.CH2.CH2.COOH

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

Mn++	gl	NaClO4	20°C	0.10M	U	T H	K1=3.04 B2= 5.90	1984SGd (48268)	793
------	----	--------	------	-------	---	-----	------------------	-----------------	-----

K values by Bjerrum's method. By least squares, K1=3.05, K2=2.86.

Also data for 30 and 40 C. DH(B2)=-61.2 kJ mol⁻¹, DS(B2)=-82.6 J K⁻¹ mol⁻¹

C6H1004Se H2L CAS 80030-00-8 (987)

2,2'-Selenodipropanoic acid; HOOC.CH(CH3).Se.CH(CH3).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	KNO3	25°C	0.10M	C		K1=2.02	1975LPa (48283)	794
------	----	------	------	-------	---	--	---------	-----------------	-----

C6H1004Se H2L CAS 2168-88-9 (982)

3,3'-Selenodipropanoic acid; HOOC.CH2.CH2.Se.CH2.CH2.COOH

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

Mn++ gl KNO3 25°C 0.10M C K1=1.50 1975LPa (48294) 795

C6H10O4Te H2L CAS 2168-91-4 (983)
 3,3'-Tellurodipropionic acid; HOOC.CH2.CH2.Te.CH2.CH2.COOH

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

Mn++ gl KNO3 25°C 0.10M C K1=1.2 1975LPa (48305) 796

C6H10O5 H2L CAS 5961-83-1 (981)
 3,3'-Oxodipropionic acid; HOOC.CH2.CH2.O.CH2.CH2.COOH

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

Mn++ gl KNO3 25°C 0.10M C K1=2.0 1975LPa (48314) 797

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

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

Mn++ gl KNO3 25°C 0.10M U K1=2.79 1975MTc (48345) 798

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

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

Mn++ gl NaClO4 25°C 0.10M U K1=3.20 1997PPa (48480) 799
 K(Mn+H2L=MnL+2H)=-4.17
 *K(MnL)=-7.13

 Mn++ gl NaClO4 25°C 0.10M U M K1=3.56 1997PPc (48481) 800
 K(Mn(edta)+L)=3.26

 Mn++ gl KNO3 25°C 1.00M U 1976VOa (48482) 801
 K(Mn+H2L=MnH-1L+3H)=-8.51

 Mn++ sp KNO3 25°C 1.0M C 1975VOa (48483) 802
 K(Mn+H-1L)=8.51

Authors assume that K(H-1L+H)=14.0.

C6H11NO2 HL Pipicolinic acid CAS 3105-95-1 (1125)
 2-Piperidine carboxylic acid; C5H10N.COOH

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

Mn++ gl oth/un 30°C 0.10M U K1=4.03 1985RRe (48536) 803

C6H11NO4S H3L CAS 58033-48-5 (3124)

N-2-Mercaptoethyliminodiethanoic acid; HS.CH2.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	KCl	20°C	0.10M	U		K1=9.32 K(Mn+HL)=4.69	1955SAa (48613)	804
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C6H11NO5		H2L		HIMDA			CAS 93-62-9	(192)	
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N-(2-Hydroxyethyl)iminodiethanoic acid; HO.CH2.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	oth	KNO3	20°C	0.10M	U		K1=6.4 B2=9.70	1965JMa (48760)	805
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Method: electrophoresis

Mn++	gl	KCl	20°C	0.10M	U		K1=5.55 B2=9.31	1955SAa (48761)	806
------	----	-----	------	-------	---	--	--------------------	-----------------	-----

Mn++	gl	KCl	30°C	0.10M	U		K1=5.65 B2=9.58	1952CCa (48762)	807
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C6H11N3		L					CAS 16227-10-4	(8351)	
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4-Butyl-4H-1,2,4-triazole;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	NaClO4	25°C	0.10M	U	TIH	K1=2.90 B2= 5.32	1981RPb (48870)	808
------	----	--------	------	-------	---	-----	---------------------	-----------------	-----

Medium: KClO4. Also data for 35 C and for 0.05 M KClO4.
Also DH and DS values.

C6H11N3O4		HL		Gly-Gly-Gly			CAS 556-33-2	(415)	
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Glycyl-glycyl-glycine; H2N.CH2.CO.NH.CH2.CO.NH.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	KCl	30°C	0.09M	U	T	K1=2.08	1957MMa (48979)	809
------	----	-----	------	-------	---	---	---------	-----------------	-----

K1=1.85(0.35 C), 2.38(48.8 C)

Mn++	EMF	none	25°C	0.0	U		K1=1.41	1955EMa (48980)	810
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C6H12N2O3		HL		DL-Ala-DL-Ala			CAS 2867-20-1	(67)	
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DL-Alanyl-DL-alanine; H2N.CH(CH3).CO.NH.CH(CH3).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	KCl	20°C	0.20M	U		K1=1.86	1982KRc (49130)	811
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Using EPR spectroscopy: K1=1.95

C6H12N2O4		H2L		EDDA			CAS 5657-17-0	(119)	
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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
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Mn++	gl	KNO3	25°C	0.10M	U		K1=6.85		1979GMa (49252)	812
Mn++	gl	KNO3	25°C	0.10M	U	M	K1=7.05 K(MnL+en)=2.1		1970DNa (49253)	813

C6H12N2O4		H2L		N,N-EDDA			CAS 5835-29-0		(2333)	
1,2-Diaminoethane-N,N-diethanoic acid; H2N.CH2.CH2.N(CH2.COOH)2										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Mn++	gl	KCl	20°C	0.10M	U		K1=7.71 B2=11.41		1955SAa (49304)	814

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
Mn++	gl	KCl	25°C	0.10M	U T	T	K1=2.83		1971SSc (50084)	815
K1(35 C)=2.76, K1(45 C)=2.73										
Mn++	oth	KNO3	20°C	0.10M	U		K1=3.9 B2=5.70		1964JOa (50085)	816
Method: paper electrophoresis										
Mn++	gl	KCl	25°C	0.10M	U		K1=2.15		1952KRb (50086)	817
Mn++	gl	oth/un	25°C	0.01M	U	T	K1=2.78 B2=5.45		1949MMa (50087)	818

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
Mn++	gl	oth/un	20°C	0.01M	U		B2=5		1950ALa (50186)	819

C6H13NO4		HL		Bicine			CAS 150-25-4		(2124)	
N,N-Bis(2-hydroxyethyl)glycine; (HO.CH2.CH2)2N.CH2.COOH										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	C		K1=3.07 B2=5.32		1991KNa (50385)	820
Mn++	gl	KNO3	30°C	0.10M	U	M	K1=2.91 K(Mn(phen)+L)=2.80		1984GHb (50386)	821
Mn++	oth	KNO3	20°C	0.10M	U		K1=3.9 B2=6.00		1965JMa (50387)	822
Method: paper electrophoresis										
Mn++	gl	KCl	30°C	0.10M	U		K1=3.27 B2=5.6		1957FCa (50388)	823

Mn++ gl KCl 30°C 0.10M U K1=3.15 B2=5.48 1953CCa (50389) 824

C6H13NO6 HL CAS 84518-56-9 (4387)
2-Amino-2-deoxy-D-gluconic acid;

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

Mn++ gl KNO3 30°C 0.10M U K1=3.2 B2=6.70 1966MSa (50533) 825

C6H13N3O3 HL Citrulline (579)
2-Amino-5-ureidovaleric acid; H2N.CO.NH.CH2.CH2.CH2.CH(NH2).COOH

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

Mn++ gl KNO3 25°C 0.10M U K1=1.59 1970CMc (50582) 826

C6H13O9P H2L CAS 59-56-3 (3049)
alpha-D-Glucose-1-phosphoric acid; Glucopyranose-1-phosphoric acid;

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

Mn++ ix NaClO4 25°C 0.10M U K1=2.19 1966DTa (50621) 827

C6H14N2O L (2357)
1-Oxa-4,7-diazacyclononane; Cyclo(-((CH2)2.NH)2(CH2)2.O.-)

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

Mn++ gl KNO3 25°C 0.10M U K1=3.0 B2=6.8 1990CCa (50713) 828

C6H14N2O2 HL Lysine CAS 56-87-1 (41)
2,6-Diaminohexanoic acid; H2N.(CH2)4.CH(NH2)COOH

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

Mn++ gl oth/un 20°C 0.01M U K1=2.18 1952ALa (50827) 829

C6H14N2O3 HL 5-Hydroxylysine CAS 13204-98-3 (1585)
2,6-Diamino-5-hydroxyhexanoic acid; H2N.CH2.CH(OH).CH2.CH2.CH(NH2).COOH

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

Mn++ gl NaClO4 25°C 0.10M U K1=2.3 1965Nca (50872) 830

C6H14N4O L CAS 44981-30-8 (8526)
Aminoiminomethylcarbamimidic acid, 2-methylpropyl ester;

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

Mn++ gl KNO3 20°C 0.10M U I K1=5.60 B2= 8.90 1997IMb (50897) 831

Data for 0.05-0.20 M (20 C) and 25-40 C (I=0.01 M). At I=0, K1=6.60, K2=3.75.

C6H14N4O2 L CAS 1071-93-8 (2563)
1,6-Hexanedioic acid dihydrazide; H2N.NH.CO.CH2.CH2.CH2.CH2.CO.NH.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	none	25°C	0.0	C	I	K1=1.306 B(MnHL)=4.675	1996RRb (50906)	832

Data for 10-60% v/v DMF/H2O and dioxane/H2O. In 50% DMF/H2O, K1=2.761, B(MnHL)=6.459.

C6H14N4O2 HL Arginine CAS 74-79-3 (40)
2-Amino-5-guanidopentanoic acid; H2N.CH((CH2)3.NH.C(:NH)(NH2)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KN03	25°C	0.10M	U		K1=2.55	1970CMc (51013)	833
Mn++	gl	oth/un	25°C	?	U	T	K1=2.64 B2=4.58	1960PEd (51014)	834

40 C: K1=2.60, K2=1.90

Mn++	gl	oth/un	20°C	0.01M	U		K1=2.00	1952ALa (51015)	835
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C6H14O8P2 H4L CAS 36011-96-8 (4391)
trans-1,2-Cyclohexanediol diphosphate; C6H10(OP03H2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	R4N.X	20°C	0.10M	U		K1=4.96 K(Mn+HL)=2.89	1969HRa (51117)	836

Medium: (C3H7)4NI

C6H15N03 Triethanolamine CAS 102-71-6 (447)
Tris-(2-hydroxyethyl)amine; L

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	oth	oth/un	25°C	0.43M	U		K1=1.47 B2=2.14	1966SKe (51299)	837

Medium: CH2OHCH2.NH3NO3

C6H15N06P2 H4L (6891)
Piperidine-N-Methylenedi(phosphonic acid); C5H10N.CH(P03H2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.10M	U		K1=7.75 K(Mn+HL)=6.27	1978GMf (51323)	838

C6H15N3 L CAS 4730-54-5 (26)
1,4,7-Triazacyclononane; cyclo(-NH.CH2.CH2.NH.CH2.CH2.NH.CH2.CH2-)

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

Mn++ gl KNO3 20°C 0.10M U T H K1=8.33 1997BAa (51411) 839
At 32 C, K1=7.02. DH(K1)=-99.8 kJ mol⁻¹. DS(K1)=328 J K⁻¹ mol⁻¹.

C6H15N3O2 HL CAS 52760-35-7 (6670)
Lysine hydroxamic acid; H2N.(CH2)4.CH(NH2)CO.NHOH

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

Mn++ gl KCl 25°C 0.20M C 2002ECa (51428) 840

B(MnHL)=13.41

B(MnH2L2)=26.3

C6H15N3O3 L (6613)
1,3,5-Triamino-1,3,5-trideoxy-cis-inositol,5-Amino-5-deoxy-streptamine;

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

Mn++ gl KNO3 25°C 0.10M C K1=4.0 B2= 4.00 1998GMA (51454) 841
K1 in 1.0 M KNO3.

C6H16N04P HL CAS 387383-55-3 (8776)
N,N,N-Trimethyl-2-(phosphonomethoxy)ethylamine;

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

Mn++ gl NaNO3 25°C 0.10M M K1=2.03 2002FGb (51574) 842

C6H16O6P2 H4L CAS 4721-22-6 (3708)
Hexane-1,6-diphosphonic acid; H2O3P(CH2)6PO3H2

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

Mn++ gl KCl 25°C 0.10M U 1967KLa (51794) 843

K(Mn+HL)=5.82

B(Mn2L)=12.51

K(2Mn+HL)=9.62

C6H16Si L (6824)
n-Hexylsilane;

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

Mn++ cal non-aq 25°C 100% U HM 1992HSb (51798) 844

Metal:Mn+. Medium:heptane. K:MnA2BC+L=MnH(H-1L)A2B. A:CO. B:C5H5. C:heptane.
DH=-92.5 kJ mol⁻¹. Data for many other silanes

C6H17NO6P2 CAS 5995-28-8 (1339)
N-t-Butyliminobis(methylenephosphonic) acid; (CH3)3CN(CH2PO3H2)2 H4L

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	1.00M	M		K1=6.39 K(Mn+HL)=4.57	1982Bgb (51812)	845

C6H17N2O3P H2L (7486)
N,N,N'-Trimethyldiaminoethane-N'-methylphosphonic acid;
(CH3)2N.CH2CH2.N(CH3)CH2PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	C		K1=5.49 K(MnL+H)=7.9 K(MnL+OH)=3.6	2001DSa (51826)	846

Mn++	gl	KNO3	25°C	0.10M	C		K1=5.49 K(MnL+H)=7.9 K(MnL+OH)=3.6	2001DSa (51827)	847
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C6H18N2O6P2 H4L (1363)
N,N'-Dimethyldiaminoethane-N,N'-dimethylphosphonic acid;
CH3N(CH2PO3H2).CH2.CH2.N(CH2.PO3H2)CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	C		K1=9.78 K(MnL+H)=6.59 K(MnL+OH)=1.9 K(MnHL+H)=5.9	2001DSa (51952)	848

Mn++	gl	KNO3	25°C	0.10M	C		K1=9.78 K(MnL+H)=6.59 K(MnHL+H)=5.9 K(MnL+OH)=1.9	2001DSa (51953)	849
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C6H18N2O6P2 H4L (7487)
N,N-Dimethyldiaminoethane-N',N'-dimethyldiphosphonic acid;
(CH3)2N.CH2CH2.N(CH2PO3H2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	C		K1=9.68 K(MnL+H)=7.66 K(MnL+OH)=2.7 K(MnHL+H)=6.0	2001DSa (51970)	850

Medium: 50% v/v dioxan/H₂O, 0.1 M KNO₃.

DG(K1)=-28.01 kJ mol⁻¹, DH=-9.6, DS=62.8 J K⁻¹ mol⁻¹

$$B(Mn_3L_2)=2.72$$

40 C: $K1=5.31$

2,2',2''-Triaminotriethylamine; (H₂N.CH₂.CH₂)₃N

$$\Delta G(K1) = -32.81 \text{ kJ mol}^{-1}, \Delta H = -12.6, \Delta S = -69 \text{ J K}^{-1} \text{ mol}^{-1}$$

Cyclohexane-1,2,3,4,5,6-hexol-hexaphosphoric acid, Myo-inositol hexaphosphoric acid; H12L

DH(K_{eff})=15.6 to 11.0 kJ mol⁻¹ for Mn:ligand ratios 1:1 to 6:1.

C6H19N2O9P3 H6L (8063)
N-Methylethylenediamine-N,N',N'-trimethylenetris(phosphonic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KN03	25°C	0.10M	C			K1=12.61 K(MnL+H)=6.96 K(MnH2L+H)=5.05 K(MnHL+H)=6.45 K(MnH3L+H)=4.0	2001DSa (52239)	863
K(MnL+OH)=2.8										
Mn++	gl	KN03	25°C	0.10M	C			K1=12.61 K(MnL+H)=6.96 K(MnHL+H)=6.45 K(MnH2L+H)=5.05 K(MnH3L+H)=4.0	2001DSa (52240)	864

$$K(\text{MnL}+\text{OH})=2.8$$

C6H20N2O12P4 H8L EDTPA CAS 1429-50-1 (434)
Ethane-1,2-bis(iminobis(methylenephosphonic acid)); ((H2O3PCH2)2NCH2.2)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KN03	25°C	0.10M	C		K1=13.5 K(MnL+H)=8.87 K(MnH2L+H)=6.17 K(MnHL+H)=7.21 K(MnH3L+H)=4.9 K(MnL+OH)=1.8	2001DSa (52349)	865
Mn++	gl	KN03	25°C	0.10M	C		K1=13.5 K(MnL+H)=8.87 K(MnHL+H)=7.21 K(MnH2L+H)=6.17 K(MnH3L+H)=4.9	2001DSa (52350)	866

$$K(\text{MnL}+\text{OH})=1.8$$

Mn++	gl	KCl	25°C	0.10M	U	K1=12.70	1967KDa	(52351)	867
						K(Mn+HL)=9.66			
						K(Mn+H2L)=6.99			
						K(Mn+H3L)=5.13			
						K(Mn+H4L)=3.19			

Mn II, σ_1 , KNO₃, 25°C, 0.10M, II, K1-0, 40, 106EUB₂ (E2352), 868

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Min++      g1  KN05      25 C  0.10M U      R1=9.40      1965WRd (32352) 888

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C7H4N2O6 HL CAS 528-45-0 (4432)
3,4-Dinitrobenzoic acid; (O2N)2.C6H3.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++ gl diox/w 25°C 50% U K1=1.50 1969SGa (52387) 869
Medium: 50% dioxan, 0.1 M NaClO4

C7H4N2O7 H2L CAS 609-99-4 (400)
3,5-Dinitrosalicylic acid; (O2N)2.C6H2(OH).COOH

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

Mn++ gl KCl 25°C 0.0 C T H K1=4.36 1975DNd (52490) 870
DH(K1)=14.05 kJ mol⁻¹, DS=130.6 J mol⁻¹ K⁻¹. Calculated from 0.1 M KCl by
the Davies equation. Values also at 35 and 45 C

Mn++ gl NaClO4 30°C 0.10M U K1=3.06 1975JKa (52491) 871

Mn++ EMF NaClO4 30°C 0.10M U K1=3.06 1972JKa (52492) 872

Mn++ gl KNO3 35°C 0.10M U K1=2.95 1970DDa (52493) 873

C7H4N4O4 L CAS 50365-37-2 (7762)
5,6-Dinitrobenzimidazole;

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

Mn++ gl NaNO3 25°C 0.50M M K1=0.08 1999KSa (52517) 874
K(Mn+H-1L)=1.85
*K(MnL)=-7.15

C7H4O3Br2 H2L CAS 3147-55-5 (1116)
3,5-Dibromosalicylic acid; C6H2(OH)(Br)2.COOH

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

Mn++ gl NaClO4 30°C 0.10M U T K1=5.03 1975JKa (52543) 875

C7H4O3Cl2 H2L CAS 320-72-9 (1117)
3,5-Dichlorosalicylic acid; C6H2(OH)(Cl)2.COOH

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

Mn++ gl NaClO4 30°C 0.10M U T K1=4.49 1975JKa (52555) 876

C7H5NOS HL CAS 7405-23-4 (3177)
4-Hydroxybenzothiazole;

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

Mn++ gl diox/w 25°C 50% U K1=5.36 B2=10.24 1960FFa (52591) 877

C7H5NO4 H2L Dipicolinic aci CAS 449-83-2 (418)

2,6-Pyridinedicarboxylic acid; C5H3N.(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	EMF	NaNO3	20°C	0.10M	U		K1=5.01 B2=8.49	1960ANb (52788)	878

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
Mn++	gl	diox/w	25°C	50%	U		K1=1.67	1969SGa (52911)	879
Medium: 50% dioxan, 0.1 M NaClO4									

C7H5NO4S2		H2L					(3178)		
4-Hydroxybenzothiazole-7-sulfonic acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	50%	U		K1=5.1 B2=9.0	1962FFa (52949)	880

C7H5NO5		H2L					Nitrosalicylic CAS 85-38-1	(1416)	
2-Hydroxy-3-nitrobenzoic acid; HO.C6H3(NO2).COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaClO4	30°C	0.10M	U	T	K1=4.85	1975JKa (52976)	881

Mn++	EMF	NaClO4	30°C	0.10M	U		K1=4.85	1972JKa (52977)	882

C7H5NO5		H2L					Nitrosalicylic CAS 96-97-9	(148)	
2-Hydroxy-5-nitrobenzoic acid; HO.C6H3(NO2).COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.10M	U	T H	K1=5.57	1975DNb (53052)	883
DH(K1)=18.2 kJ mol ⁻¹ and DS(K1)=172.5 J mol ⁻¹ K ⁻¹ . Values also available at 35 and 45 C									

Mn++	gl	NaClO4	30°C	0.10M	U		K1=4.41	1975JKa (53053)	884

Mn++	EMF	NaClO4	30°C	0.10M	U		K1=4.41	1972JKa (53054)	885

C7H5NO5		H3L					CAS 499-51-4	(3150)	
4-Hydroxypyridine-2,6-dicarboxylic acid; HO.C5H2N(COOH)2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	oth/un	20°C	0.10M	U		K1=6.7 K(MnL+H)=6.02	1963AND (53075)	886

C7H5N3O2 L CAS 94-52-0 (7761)
5-Nitrobenzimidazole;

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

Mn++ gl NaNO3 25°C 0.50M M K1=0.37 1999KSa (53101) 887
K(Mn+H-1L)=2.22
*K(MnL)=-8.73

C7H5O2Cl HL (3747)
2-Hydroxy-6-chlorobenzaldehyde (6-chlorosalicylaldehyde)

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

Mn++ gl diox/w 30°C 75% U K1=4.64 1978RJa (53159) 888

C7H5O2Cl HL CAS 535-80-8 (1368)
3-Chlorobenzoic acid; Cl.C6H4.COOH

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

Mn++ gl diox/w 25°C 50% U K1=1.81 1969SGa (53172) 889
Medium: 50% dioxan, 0.1 M NaClO4

C7H5O2Cl HL CAS 1927-94-2 (3143)
3-Chlorosalicylaldehyde; HO.C6H3(Cl).CHO

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

Mn++ gl diox/w 30°C 75% U K1=8.65 1978RJa (53190) 890

C7H5O2I HL CAS 60032-63-5 (6282)
5-Iodo-salicylaldehyde; I(OH)C6H3.CHO

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

Mn++ gl diox/w 30°C 75% U K1=4.40 1978RJa (53270) 891

C7H5O3Br H2L CAS 3883-95-2 (1111)
3-Bromosalicylic acid; Br.C6H3(OH).COOH

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

Mn++ gl NaClO4 30°C 0.10M U T K1=5.33 1975JKa (53290) 892

C7H5O3Cl H2L CAS 321-14-2 (1113)
5-Chlorosalicylic acid; Cl.C6H3(OH).COOH

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

Mn++ gl NaClO4 30°C 0.10M U T K1=6.46 1975JKa (53346) 893

C7H6NO2Cl HL CAS 7120-43-6 (3782)
5-Chloro-2-hydroxybenzaldehyde oxime (5-chlorosalicylaldoxime)

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

Mn++ gl diox/w 20°C 75% U K1=4.8 B2=10.50 1965BEb (53388) 894
Medium: 75% dioxan, 0.1 M NaClO4

C7H6NO3Br H2L CAS 87353-69-3 (207)
4-Bromosalicylhydroxamic acid; Br.C6H3(OH).CO.NH.OH

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

Mn++ EMF diox/w 30°C 50% U K1=3.28 1977DJa (53396) 895
Medium: 50% dioxan, 0.1 M NaClO4

C7H6NO3Br H2L CAS 5798-94-7 (206)
5-Bromosalicylhydroxamic acid; Br.C6H3(OH).CO.NH.OH

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

Mn++ EMF diox/w 30°C 50% U K1=3.37 1977DJa (53407) 896
Medium: 50% dioxan, 0.1 M NaClO4

C7H6NO3Cl H2L (205)
3-Chlorosalicylhydroxamic acid; Cl.C6H3(OH).CO.NH.OH

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

Mn++ EMF diox/w 30°C 50% U K1=2.98 1977DJa (53417) 897
Medium: 50% dioxan, 0.1 M NaClO4

C7H6N2 L Benzimidazole CAS 51-17-2 (52)
Benzimidazole; C7H6N2

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

Mn++ gl KNO3 25°C 0.50M U K1=0.88 1981LMb (53472) 898

C7H6N2OS HL CAS 26278-79-5 (3179)
2-Amino-4-hydroxybenzothiazole;

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

Mn++ gl diox/w 25°C 50% U K1=6.2 B2=11.4 1962FFa (53487) 899

C7H6N2O4 HL CAS 1595-15-9 (3754)

2-Hydroxy-5-nitrobenzaldehyde oxime (5-nitrosalicylaldoxime)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	diox/w	20°C	75%	U		K1=4.42 B2=8.32	1965BEb (53493)	900
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Medium: 75% dioxan, 0.1 M NaClO4

C7H6N2O4	H2L	CAS 2683-49-0	(3753)
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4-Aminopyridine-2,6-dicarboxylic acid (4-aminodipicolinic acid)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	KNO3	20°C	0.10M	U		K1=5.89 B2=10.70	1965ABa (53511)	901
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C7H6N2O5	H2L	CAS 831-51-6	(208)
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5-Nitrosalicylhydroxamic acid; O2N.C6H3(OH).CO.NH.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	EMF	diox/w	30°C	50%	U		K1=2.83	1977DJa (53523)	902
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Medium: 50% dioxan, 0.1 M NaClO4

C7H6N2S	HL	CAS 583-39-1	(2043)
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2-Mercaptobenzimidazole;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	alc/w	25°C	50%	U		K1=4.05	1978ZJa (53530)	903
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C7H6O5	HL	Thiobenzoic	CAS 98-91-9	(6294)
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Thiobenzoic acid; C6H5.COSH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	diox/w	30°C	60%	U		K1=4.1 B2=7.6	1972OTc (53556)	904
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Medium: 60% v/v dioxan, 1 M (K,Na)NO3

C7H6O2	HL	Salicylaldehyde	CAS 90-02-8	(193)
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2-Hydroxybenzaldehyde, Salicylaldehyde; HO.C6H4.CH0

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	diox/w	30°C	75%	U		K1=5.34	1978RJa (53625)	905
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Mn++	gl	KNO3	25°C	0.50M	U		K1=2.10	1969HLA (53626)	906
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Mn++	gl	KCl	25°C	0.50M	U	M	K1=2.15 B2=4.0	1968LBA (53627)	907
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B(MnL(Gly))=7.26
B(MnL(Gly)2)=9.15
B(MnL2(Gly)2)=13.04

Mn++ gl diox/w 25°C 50% U K1=3.73 B2=6.79 1949MMa (53628) 908

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

Mn++ gl diox/w 30°C 50% U M K1=11.03 B2=17.28 1980KSa (53681) 909
 B(Mn(bpy)+L)=6.14

Mn++ sp NaClO4 25°C 0.10M U K1=4.60 1968OWa (53682) 910

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

Mn++ gl NaClO4 25°C 1.00M U T H K1=0.62 1991BAa (53843) 911
 K1 also at 30, 35 and 40C. DH=12.0 kJ mol⁻¹, DS=52 J K⁻¹ mol⁻¹.

Mn++ gl NaClO4 25°C 0.00 U I K1=2.06 1979TPa (53844) 912

Mn++ gl diox/w 25°C 50% U K1=1.90 1969SGa (53845) 913
 Medium: 50% dioxan, 0.1 M NaClO4

C7H6O2S H2L Thiosalicylic CAS 147-93-3 (236)
 2-Mercaptobenzoic acid; HS.C6H4.COOH

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

Mn++ gl alc/w 17°C 50% U K1=5.07 1970RBc (53911) 914
 Medium: 50% EtOH, 0.05 M NaClO4

Mn++ gl alc/w 50°C 45% U T H K1=5.28 B2=9.56 1968RSh (53912) 915
 Medium: 45% EtOH, 0.15 M. K1=5.04(30 C), 5.15(40 C); K2=4.05(30 C), 4.18(40 C)
 DH(K1)=18 kJ mol⁻¹(25 C), DS=159 J K⁻¹ mol⁻¹; DH(K2)=24, DS=155

C7H6O2S2 H2L CAS 89677-36-1 (5448)
 3-(2-Thiophene)-2-mercaptopropenoic acid; C4H3S.CH:C(SH).COOH

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

Mn++ gl diox/w 25°C 0.10M U K1=6.26 B2=10.41 1977WVa (53931) 916

C7H6O3 H2L CAS 95-01-2 (4407)
 2,4-Dihydroxybenzaldehyde; (OH)2.C6H3.CHO

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

Mn++ gl diox/w 30°C 75% U K1=11.39 1978RJa (53941) 917

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

Mn++ cal alc/w 25°C 100% U H 1990PJJa (54260) 918
Medium: MeOH. DG(K1)=-25.7 kJ mol⁻¹, DH=21.4; DG(B2)=-43.4; DH=23.0

Mn++ gl alc/w 25°C 100% M 1988LTa (54261) 919
K(Mn+HL)=4.5
K(Mn+2HL)=7.6

Medium: MeOH

Mn++ gl NaNO3 35°C 0.10M U M T K1=6.10 1985KSc (54262) 920
K(MnL+CMP)=0.15

H2CMP=cytidine-5'-monophosphoric acid

Mn++ gl NaClO4 30°C 0.10M U K1=7.90 1975JKa (54263) 921

Mn++ gl KCl 20°C 0.10M U K1=5.90 B2=9.8 1958PEe (54264) 922

C7H6O3S H2L CAS 55927-33-8 (5445)
3-Furyl-2-mercaptopropenoic acid; C4H3O.CH:C(SH).COOH

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

Mn++ gl alc/w 30°C 10% C K1=5.07 B2=8.90 1986IGc (54446) 923
Medium: 10% v/v EtOH/H2O, 0.1 M KNO3

C7H6O4 H3L CAS 303-38-8 (1398)
2,3-Dihydroxybenzoic acid; C6H3(OH)2.COOH

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

Mn++ gl NaClO4 25°C 1.00M U T 1987GNa (54469) 924
K(Mn+H2L=MnL+2H)=-15.2

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

Mn++ gl NaClO4 30°C 0.10M U K1=9.00 1975JKa (54532) 925
B(MnHL)=9.00

C7H6O4 H3L CAS 409-79-9 (1115)
2,5-Dihydroxybenzoic acid; C6H3(OH)2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaCl04	30°C	0.10M	U	T	K1=8.46	1975JKa (54587)	926

C7H6O4		H3L		Protocatechuic			CAS 99-50-3	(875)	
3,4-Dihydroxybenzoic acid; C6H3(OH)2.COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaCl04	25°C	1.00M	U		K1=7.43 B2=12.64	1975SGb (54681)	927
Mn++	gl	KNO3	30°C	0.10M	U		K1=7.22 B2=12.28	1963MNC (54682)	928

C7H6O6S		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
Mn++	gl	NaCl04	25°C	1.00M	U		K1=4.77 B2=8.19	1975SGb (55023)	929
Mn++	gl	KCl	25°C	0.10M	U		K1=5.25 B2=8.65	1962NAa (55024)	930
Mn++	gl	NaCl04	25°C	0.10M	U		K1=5.24 B2=8.24	1960BSb (55025)	931
Mn++	gl	KCl	20°C	0.10M	U		K1=5.10 B2=8.00	1958PEe (55026)	932
Mn++	sp	R4N.X	?	0.60M	U		B2=11.43	1956ITa (55027)	933

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
Mn++	gl	oth/un	25°C	->0	U		K1=0.99 B2=2.87	1958LUa (55244)	934

C7H7NO2		H2L		Salicylaldoxime			CAS 94-67-7	(1486)	
2-Hydroxybenzaldehyde oxime; HO.C6H4.CH:N.OH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	20°C	75%	U			1965BEb (55311)	935
							K(Mn+HL)=5.8		
							K(MnHL+HL)=6.1(?)		

Medium: 75% dioxan, 0.1 M NaCl04

Mn++	con	oth/un	26°C	?	U		K1=3.01	1963KBa (55312)	936

C7H7NO2		HL					CAS 3222-47-7	(3154)	
6-Methylpyridine-2-carboxylic acid; CH3.C5H3N.COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaNO3	20°C	0.10M	U		K1=3.35 B2=5.8	1960ANb (55430)	937

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
Mn++	gl	NaNO3	25°C	0.10M	M		K1=3.49 B2= 6.98	1996KSc (55505)	938
Mn++	gl	diox/w	30°C	50%	U		K1=9.97 B2=17.87	1994JBb (55506)	939
Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4.									
Mn++	gl	diox/w	35°C	50%	U		K1=5.97 B2=10.49	1972ATa (55507)	940
Medium: 50% dioxan, I=0 corr.									
Mn++	gl	diox/w	25°C	70%	U		K1=4.90 B2=8.86	1969JSa (55508)	941

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
Mn++	gl	NaNO3	25°C	0.10M	C		K1=4.60	2000KHa (55601)	942
Mn++	gl	NaNO3	25°C	0.10M	M		K1=4.54 B2= 7.67	1996KSc (55602)	943
Mn++	EMF	diox/w	30°C	50%	U		K1=3.98	1977DJa (55603)	944
Medium: 50% dioxan, 0.1 M NaClO4									

C7H7NO3		HL					CAS 548-93-6	(3156)	
3-Hydroxyanthranilic acid (2-Amino-3-hydroxybenzoic acid)									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	oth/un	20°C	?	U		K1=3.4	1959SIb (55628)	945

C7H7NO4		HL					CAS 17209-50-6	(886)	
4-Methoxypyridine-2-carboxylic acid N-oxide; C5H3N(O)(OCH3).COOH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaClO4	30°C	0.10M	U T		K1=3.40 B2=5.74	1982RRa (55663)	946

C7H7N3O2		H2L					CAS 4463-97-2	(1654)	
2,6-Pyridinedialdoxime; C5H3N.(CH:NOH)2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

Mn++ gl NaClO4 25°C 0.10M U K1=4.4 B2=8.50 1963BFb (55742) 947

C7H8N2O HL CAS 88-68-6 (4438)
Benzamide oxime; C6H5.C(:N.OH)NH2

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

Mn++ gl mixed 22°C 70% U K1=7.62 B2=14.27 1978MGd (55822) 948
Medium: 0.1 M KNO3 in 70% (v/v) dioxane in H2O

C7H8N2O2 HL Salicylic hydra CAS 936-02-7 (2646)
2-Hydroxybenzoic acid hydrazide; HO.C6H4.CO.NH.NH2

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

Mn++ gl diox/w 25°C 25% U K1=2.76 1975GSb (55876) 949

C7H8N2O3S H2L (3783)
2-Ethylthio-1H-1,3-diazin-4-one-5-carboxylic acid;

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

Mn++ gl KCl 25°C 0.10M U 1961TDb (55934) 950
K(Mn+HL)=2.07

C7H8N4 L CAS 85180-62-7 (2481)
2,9-Dimethylpurine;

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

Mn++ gl NaClO4 25°C 1.00M U K1=<2.0 1983ALa (55958) 951

C7H8N4 L (2641)
4,4'-(5,5')-Bisimidazolylmethane; C3H3N2.CH2.C3H3N2

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

Mn++ gl KNO3 30°C 0.16M U K1=2.96 B2=5.80 1965DFa (55966) 952

C7H8N4 L CAS 14675-46-8 (2484)
6,9-Dimethylpurine;

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

Mn++ gl NaClO4 25°C 1.00M U K1=<0.2 1983ALa (55971) 953

C7H8N4 L CAS 85180-61-6 (2482)
8,9-Dimethylpurine;

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

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Mn++      gl  NaClO4  25°C  1.00M  U      K1=<0.2      1983ALa (55979) 954
*****
C7H8N4          L                      (1928)
Bis(imidazol-2-yl)methane; C3H3N2.CH2.C3H3N2
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Mn++      gl  KNO3   35°C  0.20M  U      K1=3.18      1989RVa (55996) 955
*****
C7H8O3S          H2L      FMPA          (6145)
3-(2-Furyl)-2-mercaptopropanoic acid;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Mn++      gl  alc/w  25°C  10%   C      K1=3.68  B2=10.26  1986IGc (56109) 956
Medium: 10% v/v EtOH/H2O, 0.1 M KNO3
*****
C7H8O3S          L                      CAS 55832-65-0 (3763)
3-Hydroxythiophene-2-carboxylic acid ethyl ester
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Mn++      sp  diox/w 25°C  10%   U      K1=3.79      1965CSa (56115) 957
Medium: 10% dioxan, 0.1 M NaClO4
*****
C7H8O8P2          H4L                      (6892)
1,2-((Phenylenedioxo)methylene)diphosphonic acid); C6H4O2C(P03H2)2
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Mn++      gl  R4N.X  25°C  0.50M  U      K1=7.25      1985GMb (56170) 958
                      K(Mn+HL)=4.10
Medium: 0.5 M Me4NCl
*****
C7H9N          L      3,5-Lutidine      (323)
3,5-Dimethylpyridine; C5H3N.(CH3)2
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Mn++      gl  NaNO3  25°C  0.50M  C      K1=0.54      2002KSb (56288) 959
*****
C7H9NO3S2          HL                      (940)
2-(Thiophene-2-aldimino)ethane sulfonic acid; C4H3S.CH:N.CH2.CH2.SO3H
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Mn++      gl  NaClO4 25°C  0.10M  U      K1=4.52  B2=8.26  1982MSa (56458) 960
*****
C7H9N3O2S2          L                      (6945)
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1-Ethoxycarbonyl-3-thiazole-2-ylthiourea; C3H2NS.NHCSNHCOOC2H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	25°C	60%	U		K1=3.39	1994KEa (56502)	961

Medium: 60 % EtOH/H2O, 0.1 M NaNO3

C7H10N06ClP2 H4L (6895)

N-(4-Chlorophenyl)aminomethylenedi(phosphonic acid); ClC6H4.NH.CH(P03H2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	U		K1=9.2 K(Mn+HL)=7.4	1990GKa (56556)	962

C7H10N2 L CAS 6627-60-7 (3729)

6-Methyl-2-(aminomethyl)pyridine; CH3.C5H3N.CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	EMF	NaNO3	20°C	0.10M	U		K1=1.95	1971ANa (56657)	963

C7H10O6 H3L CAS 57056-39-0 (5947)

2-(Carboxymethyl)glutaric acid; H00C.CH2.CH(CH2.C00H)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.50M	U		K1=1.72 B(MnHL)=6.22 B(MnH2L)=9.81	1983WKa (56755)	964

C7H11N06 H3L CAS 40199-58-4 (3165)

N-(2'-Carboxyethyl)iminodiethanoic acid; H00C.CH2.CH2.N(CH2.C00H)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	U		K1=7.33 K(Mn+HL)=1.51	1967UKa (56882)	965

C7H11N06P2 H4L DPHP (226)

2,6-bis(Dioxyphosphorylmethyl)pyridine; C5H3N.(CH2.P03H2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.10M	U		K1=6.66 K(Mn+HL)=4.02 K(Mn+H2L)=2.39	1988KPa (56930)	966

C7H11N06P2 H4L CAS 4712-06-5 (4470)

Amino(phenyl)methylenediphosphonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.10M	U		K1=9.93 K(Mn+HL)=7.29 B(Mn2L)=15.41	1969DMd (56943)	967

C7H12N2O2S L Cyclo-Met-Gly CAS 97605-73-7 (8135) Cyclo-(L-methionyl-L-glycine), 3-[2-(Methylthio)ethyl]-2,5-piperazine dione;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	sp	NaClO4	20°C	1.0M	C		K1=-0.6	1982BBE (57085)	968
pH 3.0 *****									
C7H12N2O3 HL Gly-Pro CAS 704-15-4 (257) Glycyl-proline; H2N.CH2.CO.NC4H7.COOH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	20°C	0.20M	U		K1=2.34	1982KRc (57125)	969
Using EPR spectroscopy: K1=2.27 *****									
Mn++	gl	oth/un	25°C	0.02M	U		K1=2.29 B2=4.33	1956DRb (57126)	970

C7H12N2O3 HL Pro-Gly CAS 2578-97-6 (262) Prolyl-glycine; C4H8N.CO.NH.CH2.COOH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	20°C	0.20M	U		K1=2.39	1982KRc (57151)	971
Using EPR spectroscopy: K1=2.34 *****									
C7H12N3O5P H2L PMEC CAS 117087-39-5 (8366) 1-[2-(Phosphonomethoxy)ethyl]cytosine;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	0.10M	M		K1=2.53 K(Mn+HL)=0.6 K(MnL+H)=5.0	1999BHb (57201)	972

C7H12O2 HL CAS 7424-54-6 (4421) Heptane-3,5-dione; CH3.CH2.CO.CH2.CO.CH2.CH3									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	50%	U		K1=5.04 B2=9.49	1973AHb (57246)	973

C7H12O4 HL CAS 96740-23-7 (2249)									

1,5-Dimethoxy-pent-2,4-dione, CH₃.O.CH₂.CO.CH₂.CO.CH₂.O.CH₃

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	24°C	50%	U		K1=3.3	1979ACa (57293)	974

C7H12O4		H2L						CAS 111-16-0 (985)	
1,7-Heptanedioic acid; HOOC.(CH ₂) ₅ .COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO ₃	25°C	0.10M	C		K1=1.33	1975LPa (57306)	975

Mn++	ix	oth/un	25°C	0.16M	U		K1=1.08	1957LWc (57307)	976

C7H13NO ₂		HL						CAS 99571-58-1 (6223)	
6-Methylpiperidine-2-carboxylic acid; CH ₃ .C ₅ H ₉ N.COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	oth/un	30°C	0.10M	U		K1=3.90	1985RRe (57451)	977

C7H13NO ₂ S		HL						(6377)	
2-Propylthiazolidine-4-carboxylic acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO ₃	30°C	0.10M	U	TIH	K1=2.67	1983RKb (57465)	978
At I=0.0, K1=2.79. Data for 25-50 C. DH(K1)=-15.3 kJ mol ⁻¹ , DS(K1)=0.88 J K ⁻¹ mol ⁻¹ .									

C7H13NO ₄ S		H2L						(3184)	
N-(2-Methylthioethyl)iminodiethanoic acid; CH ₃ .S.CH ₂ .CH ₂ .N(CH ₂ .COOH) ₂									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	EMF	KCl	20°C	0.10M	U		K1=5.10 B2=8.70	1955SAa (57548)	979
Method: H electrode									

C7H13NO ₅		H2L						CAS 62117-07-1 (3171)	
N-(2-Methoxyethyl)iminodiethanoic acid; CH ₃ .O.CH ₂ .CH ₂ .N(CH ₂ .COOH) ₂									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	EMF	KCl	20°C	0.10M	U		K1=5.53 B2=9.62	1955SAa (57576)	980
Method: H electrode									

C7H14N ₃ O ₈ P		H3L						(3788)	
Glycyl-O-phosphoryl-DL-serylglycine;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.15M	U			19620Sa (57833)	981
							K(Mn+HL)=2.08		

C7H14N4O4P		H2L					CAS 550359-20-1 (9059)		
[[2-(4-Amino-2-imino-1(2H)-pyrimidinyl)ethoxy]methyl]phosphonic acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	0.10M	M		K1=2.06	2003FHa (57843)	982

C7H15NO4S		HL		MOPS			CAS 1132-61-2 (2792)		
3-(N-Morpholino)propanesulfonic acid; C4H8ON-CH2.CH2.CH2.SO3H									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	C	M	K1=3.54	1999AAa (57963)	983
							K(Mn(Ser)+2L)=6.31		
							K(Mn(Asp)+2L)=6.38		
							K(Mn(Glu)+2L)=6.50		
							K(Mn(His)+2L)=6.45		

C7H15NO5S		HL		MOPSO			CAS 68399-77-9 (1967)		
3-(N-Morpholino)-2-hydroxypropane sulfonic acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	C	M		1999AAa (57995)	984
							K(Mn(Gly)+2L)=7.22		
							K(Mn(Ser)+2L)=7.77		
							K(Mn(Met)+2L)=7.37		
							K(Mn(Asp)+2L)=7.81		
K(Mn(Glu)+2L)=7.30, K(Mn(His)+2L)=7.49.									

C7H17NO6S		HL		DIPSO			(1097)		
3-[N,N-Bis(2-hydroxyethyl)amino]-2-hydroxypropane sulfonic acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	C		K1=3.52	2000ADa (58136)	985

Mn++	gl	KNO3	25°C	0.10M	C		K1=3.76	1999AAa (58137)	986

C7H17NO7P2		HL					CAS 220491-02-1 (7714)		
N-2-Methyltetrahydrofuryliminodi(methylenephosphonic acid);									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.20M	C		K1=7.98 B2=12.97	2000KKa (58152)	987

B(MnHL)=15.10
 B(MnH2L)=19.91
 B(MnH2L2)=29.19
 B(MnHL2)=22.00

C7H17NO7S HL TAPSO CAS 68399-81-5 (167)
 3-[N-(Tris(hydroxymethyl)methyl)amino]-2-hydroxypropane sulfonic acid

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	C	M	K1=3.48	2001AAa (58177)	988

Also data for ternary complexes with 5'-GMP, 5'-IMP and 5'-CMP.

Mn++	gl	KNO3	25°C	0.10M	C		K1=3.83	2000ADa (58178)	989
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Mn++	gl	KNO3	25°C	0.10M	C		K1=3.44	1999AAa (58179)	990
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C7H19NO6P2 H4L (7464)
 N-(3-Methylbutyl)imino-bis(methylenephosphonic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	KCl	25°C	0.20M	C		K1=7.28 B(MnHL)=15.99 B(MnH2L)=20.74 B(MnH-1L)=-3.39	2000KKa (58272)	991
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C7H22N2O13P4 H8L DPPH CAS 54622-43-4 (2651)
 2-Hydroxy-1,3-diaminopropane-N,N,N',N'-tetramethylphosphonic acid;
 HO.CH(CH2.N(CH2.PO3H2)2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	NaCl	25°C	0.10M	U		K1=11.39 B(MnHL)=21.85 B(MnH2L)=30.36 B(MnH3L)=37.55 B(MnH4L)=43.744	1987KMb (58386)	992
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B(MnH5L)=48.32; B(MnH6L)=52.27; B(Mn2L)=14.13 Calculated assuming literature values are Natural log values

C8H5NO6 H2L CAS 603-11-2 (1171)
 3-Nitro-phthalic acid; O2N.C6H3(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	oth/un	35°C	dil	U		K1=3.16	1970NPb (58434)	993
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C8H5NO6 H2L CAS 610-22-5 (1172)
 4-Nitro-phthalic acid; O2N.C6H3(COOH)2

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++       gl  oth/un 25°C 0.40M U          K1=2.80          1971NPc (58446) 994
*****
C8H5O2F3S          HL      TTA          CAS 326-91-0 (165)
4,4,4-Trifluoro-1-(2-thienyl)butane-1,3-dione; F3C.CO.CH2.CO.C4H3S
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++       dis NaNO3 25°C 0.10M C          K1=2.9           1994SDc (58648) 995
Method: solvent extraction into CHCl3
*****
C8H6O4          H2L      Phthalic acid      CAS 88-99-3 (113)
Benzene-1,2-dicarboxylic acid; C6H4(COOH)2
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++       gl  oth/un 25°C 0.10M U          K1=2.23          1989SCa (58987) 996
In 60% v/v EtOH/H2O: K1 = 3.16
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Mn++       EMF oth/un 25°C 0.0 U T H      K1=2.741         1962DNa (58988) 997
Method: H electrode. 0-45 C: DH(K1)=9.2 kJ mol-1, DS=83.2 J K-1 mol-1
K1=6.365-0.0975T+0.00005897T^2
*****
C8H7NO2Cl2          HL          CAS 13538-26-6 (6286)
3,5-Dichloro-2-hydroxyacetophenone oxime; Cl2(HO)C6H2.C(CH3):NOH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++       gl  alc/w 27°C 75% U I          K1=5.72  B2=10.99  1976LGa (59118) 998
Data in 75% EtOH. Data also in 75% acetone and 75% dioxan
*****
C8H8NO2Cl          HL          CAS 61756-69-2 (4569)
N-Acetyl-N-(4-chlorophenyl)hydroxamine; Cl.C6H4.N(CO.CH3).OH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++       gl  diox/w 25°C 70% U          K1=4.89  B2=8.86  1968JSb (59280) 999
Medium: 70% dioxan, 0.1 M KCl
*****
C8H8N2O6S          H2L          CAS 15054-42-9 (3843)
N-(2'-Nitrobenzenesulfonyl)aminoethanoic acid; O2N.C6H4.SO2.NH.CH2.COOH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++       gl  NaNO3 25°C 0.10M C          B(MnHL)=13.12    2000SIa (59375)1000
B(MnH2L2)=26.12
*****

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C8H802 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

Mn++ gl diox/w 30°C 75% U K1=7.42 1970KDa (59467)1001
Medium: 75% dioxan, 0.1 M NaClO4

C8H802 HL p-Toluic acid CAS 99-94-5 (1372)
4-Methylbenzoic acid; CH3.C6H4.COOH

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

Mn++ gl diox/w 25°C 50% U K1=1.88 1969SGa (59500)1002
Medium: 50% dioxan, 0.1 M NaClO4

C8H802 HL CAS 613-84-3 (3189)
5-Methylsalicylaldehyde (5-Methyl-2-hydroxybenzaldehyde)

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

Mn++ gl diox/w 30°C 75% U K1=9.48 1978RJa (59509)1003

C8H802S HL CAS 13205-48-6 (4506)
4-(Methylthio)benzoic acid; CH3.S.C6H4.COOH

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

Mn++ ISE KNO3 25°C 0.10M C K1=0.72 1972FGb (59654)1004
By competition with Ag+ using Ag ISE

C8H802Se HL CAS 17893-46-8 (4507)
(Phenylseleno)ethanoic acid; C6H5.Se.CH2.COOH

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

Mn++ ISE KNO3 25°C 0.10M C K1=0.32 1972FGb (59662)1005
By competition with Ag+ using Ag ISE

C8H803 H2L o-Cresotic acid CAS 83-40-9 (2338)
2-Hydroxy-3-methylbenzoic acid; CH3.C6H3(OH).COOH

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

Mn++ con oth/un 26°C ? U 1962KBa (59702)1006
K(Mn+HL=MnL+H)=2.87(?)

C8H803 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
Mn++	gl	KNO3	25°C	0.10M	U	T	K1=1.73	1984JSa (59850)	1007
Mn++	sp	oth/un	?	?	U		K1=6.7	1976SCb (59851)	1008
Mn++	sp	NaClO4	30°C	0.10M	U		K1=2.00 B2=3.40	1975KAd (59852)	1009

C8H8O3		HL					CAS 673-22-3	(3194)	
4-Methoxysalicylaldehyde; CH3O.C6H3(OH).CHO									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	30°C	75%	U		K1=3.98 B2=7.08	1967KBb (59980)	1010
Medium: 75% dioxan, 0.1 M NaClO4									

C8H8O5		H2L					CAS 5629-08-3	(679)	
7-Oxy-bicyclo[2.2.1]-hept-5-ene-2,3-dicarboxylic acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaCl	37°C	0.15M	U		K1=4.57 B(MnHL)=9.52	1988HYa (60126)	1011

C8H9NOS		HL					CAS 4822-44-0	(3240)	
N-(Mercaptoacetyl)aniline (thioglycolanilide); C6H5.NH.CO.CH2.SH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	30°C	75%	U		K1=6.3	1961MAe (60161)	1012

C8H9NO2		HL					C-Phenylglycine CAS 2835-06-5	(6511)	
2-Amino-2-phenylethanoic acid, 2-aminophenylethanoic acid; C6H5.CH(NH2)COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	M		K1=2.58 B2=4.50	1990SMa (60174)	1013

C8H9NO2		HL					CAS 1726-86-9	(1487)	
2-Hydroxy-5-methylbenzaldehyde oxime; CH3.C6H3(OH).CH:NOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaClO4	20°C	0.10M	U		K1=6.1 B2=12.20	1965BEb (60196)	1014

C8H9NO2		HL					CAS 17194-82-0	(1382)	
2-Hydroxyacetophenone oxime; HO.C6H4.C(CH3):NOH									

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

Mn++ gl diox/w 30°C 50% U K1=5.90 1982UVa (60215)1015

Mn++ gl diox/w 30°C 75% U K1=10.26 B2=18.18 1976IKa (60216)1016
Medium: 75% Dioxan/H2O, 0.1 M KNO3. Data also for 8 phenyl substituted
analogues (3-Me, 5-Me, 3-Cl, 5-Cl, 5-Br, 3-Br, 5-I, 5-NO2)

Mn++ gl diox/w 30°C 75% U K1=7.57 B2=14.92 1958KV a (60217)1017
K3=7.13

Medium: 75% dioxan, 0.1 M NaClO4

C8H9NO2 L CAS 1849-49-6 (5907)

5'-Deoxypyridoxal

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

Mn++ gl KNO3 25°C 0.10M M K1=2.91 1990SMa (60248)1018
K(MnL+H)=7.51

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

Mn++ gl NaClO4 30°C 0.10M U T H K1=3.45 1981RSc (60347)1019
Data for 30-50 C. DH(K1)=-12.0 kJ mol⁻¹, DS(K1)=24 J K⁻¹ mol⁻¹.
K(Mn(bpy)+L)=3.25, DH=-12.1, DS=22.

Mn++ gl KNO3 30°C 0.10M U M K1=3.45 1980RSc (60348)1020
K(Mn(His)+L)=3.30

Mn++ gl NaClO4 30°C 0.10M U T H K1=3.45 B2= 6.31 1980RSe (60349)1021
DH(K1)=-12.8 kJ mol⁻¹, DS(K1)=24 J K⁻¹ mol⁻¹; DH(K2)=-15.4, DS(K2)=4.1.

C8H9NO2S HL CAS 104-18-7 (4575)

(4-Aminophenylthio)ethanoic acid; H2N.C6H4.S.CH2.COOH

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

Mn++ gl KNO3 25°C 0.05M M K1=3.27 1975DPb (60374)1022

C8H9NO3 HL CAS 5663-54-7 (1095)

2,4-Dihydroxy-acetophenone oxime; (HO)2.C6H3.C(CH3):NOH

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

Mn++ gl diox/w 27°C 60% U I K1=6.85 B2=10.00 1974SRa (60398)1023
In 60% acetone: K1=4.43, B2=8.60; 60% 2-EtOEtOH: 3.38, 6.30

Mn++ gl diox/w 30°C 60% U B2=6.50 1967SRa (60399)1024

C8H9NO3 HL Pyridoxal CAS 65-22-5 (110)
3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinecarboxaldehyde;

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

Mn++ gl KCl 25°C 0.50M U K1=1.70 1976EEa (60428)1025

C8H9NO3 H2L CAS 26071-07-8 (209)
5-Methylsalicylhydroxamic acid; CH3.C6H3(OH).CO.NH.OH

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

Mn++ EMF diox/w 30°C 50% U K1=4.54 1977DJa (60438)1026
Medium: 50% dioxan, 0.1 M NaClO4

C8H9NO3 HL CAS 2292-53-7 (8860)
Mandelohydroxamic acid;

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

Mn++ gl KNO3 20°C 0.10M U K1=3.05 B2= 6.02 1989SMc (60446)1027

C8H9NO3S HL CAS 72678-98-9 (8333)
2-(2-Furanyl)-4-thiazolidinecarboxylic acid;

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

Mn++ gl KNO3 30°C 0.10M U TIH K1=3.32 1983RKb (60458)1028
At I=0.0, K1=3.43. Data for 25-50 C. DH(K1)=-19.4 kJ mol-1,
DS(K1)=4.0 J K-1 mol-1.

C8H9NO4 HL CAS 78257-51-9 (887)
4-Ethoxypyridine-2-carboxylic acid N-oxide; C2H5O.C5H3N-O(COOH)

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

Mn++ gl NaClO4 30°C 0.10M U T K1=3.20 B2=5.70 1982RRa (60479)1029

C8H9NO5S H2L (6513)
2-Amino-4-sulfo benzeneethanoic acid; NH2.CH(C6H4HSO3)COOH

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

Mn++ gl KNO3 25°C 0.10M M K1=2.29 B2=3.97 1990SMa (60523)1030

C8H9N3 L CAS 7471-05-8 (3198)
2,2'-Pyridylimidazoline;

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

Mn++ gl diox/w 25°C 50% U K1=3.9 1956HFa (60543)1031

C8H9N3O7 H2L Uramildiacetic CAS 13055-06-5 (185)
5-Amino-2,4,6-trioxo-1,3-perhydrodiazimino-N,N-diethanoic acid;

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

Mn++ cal KNO3 25°C 0.1M C H 1981CSb (60640)1032
DH(K1)=-10.5 kJ mol⁻¹, DS=159 K J mol⁻¹

Mn++ gl R4N.X 25°C 0.10M C K1=10.28 B2=14.04 1975JTa (60641)1033

Mn++ oth KNO3 25°C 0.10M U K1=9.87 1972FVa (60642)1034
K(Mn+HL)=3.48

Mn++ gl oth/un 20°C 0.0 U K2=4.0 1948SBa (60643)1035

C8H10N06P H3L Codecarboxylase CAS 41468-25-1 (2555)
Pyridoxal-5-phosphoric acid;

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

Mn++ gl KNO3 25°C 0.10M M K1=3.25 1990SMa (60704)1036
K(MnL+H)=7.73
K(MnHL+H)=5.6

C8H10N2O2 HL (3227)
N-(2'-Pyridylmethyl)glycine; C5H4N.CH2.NH.CH2.COOH

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

Mn++ gl KNO3 25°C 0.10M U K1=4.2 1965LCa (60745)1037

C8H10N3OCl HL CAS 5756-79-6 (4578)
3-Ethyl-3-hydroxy-1-(2-chlorophenyl)triazene;

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

Mn++ gl diox/w 25°C 70% U K1=5.79 B2=9.78 1968DSa (60783)1038
Medium: 70% dioxan, 0.1 M KCl

C8H10N3OCl HL CAS 5756-78-5 (4579)
3-Ethyl-3-hydroxy-1-(4-chlorophenyl)triazene;

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

Mn++ gl diox/w 25°C 70% U K1=5.94 B2=10.14 1968DSa (60788)1039
Medium: 70% dioxan, 0.1 M KCl

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
Mn++	gl	KNO3	30°C	0.10M	U			K1=3.70	1995KFa (60872)	1040

C8H1007			H2L					(2958)		
5,6-Dihydroxy-7-oxa-bicyclo[2.2.1]heptan-2,3-dicarboxylic acid;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KNO3	30°C	0.10M	U			K1=3.49	1995KFa (60885)	1041

C8H1009			H4L					CAS 137172-86-2	(6612)	
SS-Oxydisuccinic acid; O(CH(COOH)CH2.COOH)2										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.10M	C			K1=5.40	1992MMa (60905)	1042
								K(MnL+H)=4.02		
								K(MnHL+H)=3.72		
								K(MnH2L+H)=3.13		
								K(Mn+HL)=3.46		
K(Mn+H2L)=2.38, K(Mn+H3L)=2.12										

C8H1009			H4L					CAS 84852-72-2	(6611)	
meso-Oxydisuccinic acid; O(CH(COOH)CH2.COOH)2										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.10M	C			K1=5.69	1992MMa (60917)	1043
								K(MnL+H)=4.23		
								K(MnHL+H)=2.4		
								K(MnH2L+H)=4.25		
								K(Mn+HL)=3.95		
K(Mn+H2L)=1.4, K(Mn+H3L)=1.74										

C8H10010			H4L					(5894)		
1-Hydroxy-3-oxapentane-1,2,4,5-tetracarboxylic acid;										
HO.CH(COOH).CH(COOH).O.CH(COOH).CH2(COOH)										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.10M	C			K1=5.69	1989MMd (60929)	1044
								K(MnL+2H)=7.25		

C8H11NO			HL					CAS 6623-41-2	(3229)	
2-Amino-4,5-dimethylphenol; H2N.C6H2(CH3)2.OH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++ gl none 20°C 0.0 U K1=3.6 1959SIb (61019)1045

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

Mn++ gl KCl 25°C 0.50M U K1=1.70 1976EEa (61121)1046

C8H11NO3 H2L Noradrenaline CAS 138-65-8 (253)
Norepinephrine, 3,4-Dihydroxyphenylethanolamine; (HO)2C6H3.CH(CH2.NH2).OH

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

Mn++ gl KCl 25°C 0.20M C K1=7.44 B2=12.07 1981GKb (61164)1047
B(MnHL)=16.93
B(MnHL2)=22.0

Mn++ gl KCl 25°C 0.10M U K1=8.58 B2=14.78 1966JNa (61165)1048
K1 adjusted to give hypothetical microscopic constant

C8H11NO4S H2L (6643)
N-Ethyl-3,4-dihydroxybenzene sulphonamide;

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

Mn++ gl NaClO4 25°C 1.00M U 1992AGc (61176)1049
K(Mn+H2L=MnL+2H)=-12.07
K(MnL+H2L=MnL2+2H)=-14.03

C8H11NO8P2 H5L (6894)
N-(4-Carboxyphenyl)aminomethylenedi(phosphonic acid); HOOC.C6H4.NH.CH(PO3H2)2

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

Mn++ gl KNO3 25°C 0.10M U K1=9.68 1990GKa (61229)1050
K(Mn+HL)=4.68
K(Mn+H2L)=2.81

C8H11N3O HL CAS 5956-70-7 (4529)
3-Hydroxy-3-methyl-1-(4-tolyl)triazene; CH3.C6H4.N:N.N(OH).CH3

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

Mn++ gl diox/w 25°C 70% U K1=7.01 B2=12.58 1970DSb (61243)1051
Medium: 70% dioxan, 0.1 M KCl

C8H11N3O2 HL CAS 5756-72-9 (4533)
3-Hydroxy-3-methyl-1-(4'-methoxyphenyl)triazene; CH3O.C6H4.N:N.N(OH).CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	70%	U		K1=7.39 B2=12.99	1970DSb (61256)	1052
Medium: 70% dioxan, 0.1 M KCl									

C8H12N2O2		HL					Pyridoxamine CAS 85-87-0	(1175)	
4-(Aminomethyl)-5-hydroxy-6-methyl-3-pyridinemethanol;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.50M	U		K1=3.46	1976EEa (61422)	1053
Mn++	gl	KNO3	25°C	0.10M	U		K1=3.56	1957GMa (61423)	1054

C8H12N2O3S		HL					CAS 16968-98-2	(4582)	
d-Bisnorbiotin									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	50%	U		K1=1.80	1969SMc (61467)	1055
Medium: 50% dioxan, 0.1 M NaClO4									

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
Mn++	vlt	KNO3	25°C	0.10M	U		K1=8.50	1974SGa (61515)	1056

C8H12N4B-		L					(7238)		
(Pyrazol-1-yl) dihydro(3,5-dimethylpyrazol-1-yl) borate; C3H3N2.BH2.C3HN2(CH3)2-									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	dis	non-aq	25°C	100%	U			1996KSa (61545)	1057
							K(Mn+2HL=MnL2(org)+2H)=-7.83		
By solvent extraction into CHCl3									

C8H12N5O4P		H2L					CAS 106941-25-7	(6693)	
9-(2-(Phosphonylmethoxy)ethyl)adenine; H2O3P.CH2.O.CH2.CH2.adenine									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	0.10M	M	M	K1=1.79	2000KLb (61652)	1058
							K(PtLA+Mn)=1.79		
A=diethylenetriamine									
Mn++	gl	NaNO3	25°C	0.10M	M		K1=2.54	1992SCa (61653)	1059
							B(MnHL)=7.24		

K(Mn+HL)=0.3

C8H13NO3 H3L (4539)

(1-Acetyl)ethylideneiminopropanoic acid;

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

Mn++ EMF oth/un ? ? U K1=5.75 1972MGb (61748)1060

C8H13NO6S H3L (5675)

2-Mercapto-1-aminoethane-N,N,S-triethanoic acid; H₂NC(CH₂)₂SC(CH₂)₂COOH

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

Mn++ gl NaClO₄ 25°C 0.10M U K1=6.71 1975POa (61826)1061

K(Mn+HL)=1.52

C8H13N6O4P H2L (7462)

9-[2-(Phosphonomethoxy)ethyl]-2,6-diaminopurine;

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

Mn++ gl NaNO₃ 25°C 0.10M M K1=2.51 1999BSa (61876)1062

K(Mn+HL)=0.8

C8H14N2O3 HL Ala-Pro CAS 13485-59-1 (256)

Alanyl-proline; H₂NCH(CH₃)CO.NC(CH₂)₂COOH

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

Mn++ gl KCl 20°C 0.20M U K1=1.91 1982KRc (61915)1063

Using EPR spectroscopy: K1=1.96

C8H14N2O3 HL Pro-Ala CAS 6422-36-2 (263)

Prolyl-alanine; C₄H₈NCO.NHCH(CH₃)COOH

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

Mn++ gl KCl 20°C 0.20M U K1=2.46 1982KRc (61929)1064

Using EPR spectroscopy: K1=2.57

C8H14N2O3 HL CAS 21561-97-7 (4448)

dl-Bisnordethiobiotin;

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

Mn++ gl diox/w 25°C 50% U K1=1.89 1969SMc (61934)1065

Medium: 50% dioxan, 0.1 M NaClO₄

C8H14N2O6P2 HL (7465)

N-(3-Pyridylmethyl)imino-bis(methylphosphonic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.20M	C		K1=6.75 B(MnHL)=14.07 B(MnH2L)=18.78 B(MnH3L)=22.71 B(MnH-1L)=-4.27	2000KKa (61968)	1066

C8H1402S2 HL Lipoic acid CAS 1077-28-7 (409)
1,2-Dithiolane-3-pentanoic acid (6,8-Thioctic acid); C3H5S2.(CH2)4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaClO4	25°C	0.10M	C		K1=2.06	1978SPd (62071)	1067
For L-lipoic acid: K1=1.93; D-lipoic acid: K1=2.07									

Mn++	gl	diox/w	25°C	50%	U		K1=2.01	1969SMc (62072)	1068
Medium: 50% dioxan, 0.1 M NaClO4									

C8H1404S3 H2L (2526)
3,6,9-Trithiaundecanedioic acid; HOOC.CH2.S.C2H4.S.C2H4.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaClO4	25°C	0.10M	U		K1=1.7 K(Mn+HL)=0.6	1971PPc (62126)	1069

C8H1407 H2L (241)
Di(carboxymethoxy)ethyl ether; (HOOC.CH2.O.CH2.CH2)2O

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KN03	25°C	0.10M	U		K1=2.90	1975MTc (62149)	1070

C8H15N209P H4L (3847)
O-Phosphoryl-L-seryl-L-glutamic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.15M	U		K1=2.984 K(Mn+HL)=2.24 K(Mn+MnL)=1.95 K(Mn+MnHL)=1.32 K(Mn2L+H)=6.88	19620Sa (62236)	1071

K(Mn+H2L)=1.42

C8H16N203 HL CAS 83874-82-2 (3838)
6-Acetylamino-2-aminohexanoic acid; CH3.CO.NH.(CH2)4.CH(NH2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	NaClO4	25°C	0.10M	U			K1=2.50	1970GPa (62292)	1072

C8H16N2O3		HL		Gly-Leu				CAS 869-19-2	(255)	
Glycyl-leucine; H2N.CH2.CO.NH.CH(CH2.CH(CH3)2).COOH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KCl	20°C	0.20M	U			K1=1.93	1982KRc (62390)	1073
Using EPR spectroscopy: K1=1.94										

C8H16N2O3		HL		Leu-Gly				CAS 686-50-0	(1248)	
Leucyl-glycine; H2N.CH(CH2.CH(CH3)2).CO.NH.CH2.COOH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KCl	20°C	0.20M	U			K1=2.01	1982KRc (62435)	1074
Using EPR spectroscopy: K1=1.91										

C8H16N2O4		H2L						(267)		
1,2-Diaminoethane-N,N'-di(2-propanoic acid); ((CH3)(COOH).CH.NH.CH2)2										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KNO3	20°C	0.10M	U			K1=6.10	1966MKb (62473)	1075

C8H16N2O4		H2L						CAS 13288-40-9	(3237)	
1,2-Diaminoethane-N,N'-di(3-propanoic acid); (HOOCCH2CH2NHCH2.)2										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KCl	30°C	0.10M	U			K1=3.4	1953CCb (62504)	1076

C8H16N2O4		H2L						(266)		
N,N'-Dimethylethylenediamine-N,N'-diethanoic acid;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	C			K1=8.48 K(Mn+HL)=2.36	1993WLa (62530)	1077

C8H16N2O4S2		H2L						CAS 462-10-2	(527)	
DL-4,4'-Dithiobis(2-aminobutanoic acid); (HOOC.CH(NH2).CH2.CH2.S.)2										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.10M	U			B2=6.99 B(MnHL)=12.54	1981BLb (62562)	1078

 C8H17N04 H2L CAS 6353-68-6 (3238)
 N,N-Di-(2-Hydroxypropyl)glycine; (HO.CH2.CH2)2N.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	oth/un	30°C	0.10M	U		K1=3.02 B2=5.46	1957FCa (62783)	1079

C8H17N3O2 HL (5973)
 1,4,7-Triazacyclononane-1-ethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KN03	25°C	0.50M	M		K1=8.53 1993CKa (62791)	1080	
							K(Mn(OH)L+H=ML)=11.02		

C8H18N4O2 L (6627)
 N,N'-Bis(3-aminopropyl)oxamide; (CO.NH.(CH2)3.NH2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	0.10M	C	M		1992LJb (62967)	1081
							B(MnCuL)=23.9		
							B(MnCu2L2)=46.8		
							B(MnCu3L3)=69.6		

C8H19N02 L CAS 102-79-4 (3841)
 N-Butyl-2,2'-iminodiethanol (butyldiethanolamine);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	oth	oth/un	25°C	0.43M	U		K1=1.35 B2=1.80	1966SKe (63034)	1082
Medium: CH2OHCH2NH2.HNO3									

C8H19N05 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
Mn++	gl	KN03	25°C	1.0M	C		K1=0.70 1980SAb (63064)	1083	
							K(Mn(ATP)+L)=0.6		

C8H19N06P2 H4L CAS 5995-40-4 (1338)
 N-Cyclohexyliminobis(methylenephosphonic) acid; C6H11.N(CH2PO3H2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.20M	C		K1=6.58 2000Kka (63084)	1084	
							B(MnHL)=16.30		
							B(MnH2L)=21.05		

B(MnH-1L)=-4.84

Mn++ gl KNO3 25°C 1.00M M K1=6.11 1982BGb (63085)1085
K(Mn+HL)=3.35

C8H19N3O L (4430)

1-Oxa-4,7,10-triazacyclododecane;

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

Mn++ gl KNO3 25°C 0.10M U K1=5.85 B2=9.14 1991ACa (63135)1086

B(MnH-1L)=-4.60

K(MnL+OH)=3.37

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

Mn++ gl KCl 25°C 0.10M U K1=8.00 1965DKb (63342)1087

K(Mn+HL)=3.57

C8H23N5 L Tetren CAS 112-57-2 (715)

1,4,7,10,13-Pentaazatriodecane (Tetraethylenepentamine);

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

Mn++ cal KCl 25°C 0.10M U H 1964PVa (63474)1088

DH(K1)=-15.5 kJ mol⁻¹, DS=73.2 J K⁻¹ mol⁻¹

Mn++ gl KCl 25°C 0.10M U K1=6.55 1963PVa (63475)1089

Mn++ gl NaClO4 25°C 0.15M U T H K1=7.62 1958JSa (63476)1090

K1=7.55(35 C), 7.46(45 C). DH(K1)=-15.4 kJ mol⁻¹, DS=94.6 J K⁻¹ mol⁻¹. KClO4

Mn++ gl KNO3 25°C 0.10M U K1=7.0 1958RHa (63477)1091

C9H4N2F4 L CAS 124005-68-1 (7590)

N-(2,3,5,6-Tetrafluorophenyl)imidazole;

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

Mn++ gl NaNO3 25°C 0.50M M K1=0.84 1998KSa (63506)1092

C9H5NOBr2 HL CAS 521-74-4 (3279)

5,7-Dibromo-8-hydroxyquinoline;

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

Mn++ gl diox/w 35°C 75% U K1=6.0 B2=10.73 1970GMh (63521)1093

Medium: 75% v/v dioxan, 0.2 M NaClO4

C9H5NOCl2 HL CAS 773-76-2 (3278)

5,7-Dichloro-8-hydroxyquinoline;

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

Mn++ gl diox/w 35°C 75% U K1=5.90 B2=10.53 1970GMh (63544)1094
Medium: 75% dioxan, 0.2 M NaClO4

C9H5N3O5 HL CAS 1084-32-8 (4608)

5,7-Dinitro-8-hydroxyquinoline;

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

Mn++ gl diox/w 35°C 75% U K1=4.10 B2=7.04 1970GMh (63628)1095
Medium: 75% dioxan, 0.2 M NaClO4

C9H6NOCl HL CAS 130-16-5 (1268)

5-Chloro-8-hydroxyquinoline;

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

Mn++ gl diox/w 25°C 60% U K1=7.62 B2=14.32 1973SCd (63663)1096
Medium: 60% dioxan, 0.1 M NaClO4

C9H6NO4IS H2L Ferron CAS 547-91-1 (275)

7-Iodo-8-hydroxyquinoline-5-sulfonic acid; (HO)(HO3S)C9H4NI

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

Mn++ gl KNO3 25°C 0.10M C K1=8.58 B2=15.89 1985ZHa (63816)1097

Mn++ gl oth/un 20°C 0.03M U K1=5.25 1977KCb (63817)1098
K1=4.42 by solubility

Mn++ gl KNO3 28°C 0.10M U K1=4.95 B2=8.10 1967LMb (63818)1099

Mn++ gl KCl 25°C 0.10M U K1=5.3 B2=9.60 1963STa (63819)1100

C9H6N2O3 HL CAS 5437-99-0 (3865)

5-Nitro-8-hydroxyquinoline;

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

Mn++ gl diox/w 25°C 60% U K1=6.78 B2=13.08 1973SCd (63864)1101
Medium: 60% dioxan, 0.1 M NaClO4

C9H6N2O6S H2L CAS 15851-63-3 (1433)

7-Nitro-8-hydroxyquinoline-5-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	oth/un	25°C	0.0	U		K1=4.76 B2=7.80	1955NUa (63912)	1102

C9H6N3OC1S		HL				CAS 27004-41-7 (216)			
2-(2'-Thiazolylazo)-4-chlorophenol; C3H2NS.N:N.C6H3(Cl).OH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	sp	diox/w	20°C	10%	U			1970KIa (63928)	1103
K(Mn+HL=MnL+H)=2.9									

C9H7NO		HL Oxine				CAS 148-24-3 (504)			
8-Hydroxyquinoline (8-quinolinol);									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.1M	U T		K1=7.85 B2=14.40	1986MLb (64308)	1104
Also for 60 C K1=6.75; B2=12.56									
for 80 C K1=6.60; B2=12.20									
Mn++	gl	diox/w	25°C	60%	U		K1=7.62 B2=14.32	1973SCd (64309)	1105
Medium: 60% dioxan, 0.1 M NaClO4									
Mn++	kin	oth/un	25°C	0.10M	U	I M	K1=5.84	1972HMb (64310)	1106
K(MnA+L)=5.58									
K(MnB+L)=5.71									
K(MnC+L)=4.98 (0.15 M)									
K(MnD+L)=4.12 (0.3 M)									
K(MnE+L)=4.12. H3A=NTA, H3B=uramil diethanoic acid, H3C=adenosine diphosphoric acid, H4D=ATP, H5E=tripolyphosphoric acid.									
Mn++	kin	oth/un	16°C	0.10M	U		K1=5.88	1970HZa (64311)	1107
By spectrophotometry K1=6.24									
Mn++	kin	oth/un	16°C	0.10M	U	I M		1970HZa (64312)	1108
K(MnA+L)=5.33									
K(MnB+L)=5.23									
H3A=NTA, H3B=uramildithanoic acid.									
By spectroscopy, K(MnA+L)=4.63, K(MnB+L)=4.67									
Mn++	kin	oth/un	16°C	0.30M	U	I M		1970HZa (64313)	1109
K(MnA+L)=4.46									
K(MnB+L)=3.99 (0.03 M)									
By spectroscopy, 0.03 M: K(MnA+L)=4.59, K(MnB+L)=4.03.									
H4A=adenosine-5'-triphosphate; H5B=tripolyphosphoric acid.									
Mn++	cal	diox/w	25°C	50%	U	H		1968GFa (64314)	1110
Medium: 50% dioxan, 0.1 M NaClO4. DH(K1)=-14.6 kJ mol-1, DS=92 J K-1 mol-1,									

DH(B2)=-43.9, DS=113

Mn++	gl	diox/w	25°C	50%	U	K1=7.30	B2=13.49	1967SFa (64315)	1111
Mn++	gl	diox/w	30°C	75%	U	K1=10.8	B2=20.4	1954UFa (64316)	1112
Mn++	gl	oth/un	20°C	0.01M	U	K1=6.8	B2=12.6	1953ALa (64317)	1113
Mn++	gl	diox/w	25°C	50%	U	K1=8.28	B2=15.45	1952JFa (64318)	1114

C9H7N03S2 H2L CAS 58447-10-2 (4675)

8-Mercaptoquinoline-5-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	EMF	oth/un	?	?	U		K1=5.2 B2=9.80	1968ABa (64426)	1115

C9H7N04S H2L Sulfoxine CAS 84-88-8 (448)

8-Hydroxyquinoline-5-sulfonic acid;

Mn++	gl	NaClO4	25°C	1.00M	U		K1=5.47 B2=10.36 B3=14.30	1975SGb (64559)	1116
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Mn++ gl diox/w 25°C 60% U K1=7.43 B2=13.74 1973SCd (64560)1117
Medium: 60% dioxan, 0.1 M NaClO4

Mn++ gl diox/w 25°C 50% U H K1=7.05 B2=13.18 1968GFa (64561)1118
Medium: 50% dioxan, 0.1 N NaClO4. By calorimetry: DH(K1)=-13.4 kJ mol⁻¹,
DS=92 J K⁻¹ mol⁻¹; DH(B2)=-28.0 ?, DS=192 ?

Mn++ gl KNO3 25°C 0.10M U K1=5.67 B2=10.72 1959RGa (64562)1119

Mn++ gl oth/un 25°C 0.0 U K1=6.94 1954NUa (64563)1120

Mn++ gl oth/un 20°C 0.01M U K1=6.6 B2=11.5 1953ALa (64564)1121

C9H7NS HL Quinolinethiol CAS 491-33-8 (1028)

8-Mercaptoquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++ cal diox/w 25°C 50% U H 1968GFa (64648)1122
Medium: 50% dioxan, 0.1 M NaClO4. DH(K1)=-14.6 kJ mol⁻¹, DS=79 J K⁻¹ mol⁻¹

Mn++ gl diox/w 27°C 50% U K1=6.74 1963CFa (64649)1123

C9H7N3O2 HL (1328)

4-Oximino-3-phenyl-2-pyrazolin-5-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	20°C	50%	U	T	K1=2.57 B2=5.00	1981SSc (64663)	1124
At 30 C: K1=2.87, B2=4.95									

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
Mn++	sp	NaNO3	25°C	0.10M	U		K1=5.52 K(Mn+HL)=2.02	19860Ha (64713)	1125
Mn++	gl	alc/w	25°C	50%	U		K(Mn+2HL)=13.1	1967NPb (64714)	1126
Medium: 50% MeOH, 0.1 M NaCl04									
Mn++	gl	diox/w	25°C	50%	U		K(Mn+HL)=9.43 K(MnHL+HL)=8.6 K(MnL+H)=7.88 K(MnOHL+H)=9.4	1966SCd (64715)	1127

C9H8NO4P		H2L					CAS 7220-39-5	(1930)	
8-Quinolyl-phosphoric acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaCl	25°C	0.15M	U		K1=1.90	1989AKa (64756)	1128

C9H8N2O2S		HL					(8279)		
Dehydroxydemethyl-desferrithiocin;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	C		K1=2.4	1990ARa (64804)	1129

C9H8N2O4S2		HL					CAS 219931-32-5	(8394)	
3-Phenylsulfonamidorhodanine;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	sp	alc/w	30°C	20%	C	T H	K1=7.00 B2=12.00	1998EGa (64832)	1130
Medium: 20% v/v EtOH/H2O, 0.10 M KCl. Also data for 35 and 45 C.									
DH and DS values reported									

C9H8N4O5		L					CAS 487-16-1	(8470)	
Isatin 3-thiosemicarbazone; Indole-2,3-dione 3-(thiosemicarbazone);									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	30°C	60%	M		K1=4.48	1996HTb (64850)	1131

Medium: 60% v/v EtOH/H2O, 0.04 M KCl.

C9H8N4O2 L CAS 10065-23-3 (8471)

Isatin 3-semicarbazone; Indole-2,3-dione 3-semicarbazone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	30°C	60%	M		K1=4.24	1996HTb (64853)	1132

Medium: 60% v/v EtOH/H2O, 0.04 M KCl.

C9H8N4O3S HL ABS CAS 847943-99-1 (9223)

4-Acrylamidobenzenesulfonylazide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	25°C	50%	C T H		K1=8.07 B2=14.32	2004JEa (64859)	1133

Medium: 50% v/v EtOH/H2O, 0.10 M KCl. DH(K1)=-27.8 kJ mol⁻¹, DS(K1)=-248 J K⁻¹ mol⁻¹; DH(K2)=-26.8, DS(K2)=-210. Also data for 35 and 45 C

C9H8O2S H2L CAS 5740-34-1 (1065)

3-Phenyl-2-mercaptopropenoic acid; C6H5.CH:C(SH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	25°C	30%	C		K1=5.407	1988FGa (64878)	1134

Medium: 30% v/v EtOH/H2O, 0.1 M KNO3

C9H8O4 H3L Caffeic acid CAS 331-39-5 (6037)

3-(3,4-Dihydroxyphenyl)propenoic acid; (HO)2C6H3.CH:CH.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaCl	25°C	0.10M	U			1992CLa (64920)	1135

B(MnH-1L)=-4.88
B(MnH-2L)=-15.55

Ligand defined as H2L

C9H8O4 H2L CAS 97652-17-0 (3855)

3-Carboxy-4-methyltropolone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	sp	NaClO4	?	0.20M	U		K1=4.96	1967GDb (64948)	1136

C9H8O4 H2L CAS 4316-23-8 (4593)

4-Methylphthalic acid; CH3.C6H3(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	oth/un	25°C	0.04M	U		K1=2.82	1971NPc (64970)	1137

C9H9NO2		HL					CAS 25355-34-4	(6206)	
1-Phenyl-prop-1,2-dione monoxime; C6H5.CO.C(:NOH).CH3									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	25°C	75%	U		K1=4.8 B2=7.70	1986BTa (65037)	1138
Medium: 75% MeOH/H2O, 0.1 M NaClO4									

C9H10N2O2		HL					CAS 52829-64-8	(4627)	
2-Acetoacetamidopyridine; C5H4N.NH.CO.CH2.CO.CH3									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	U		K1=3.38 B2=6.28	1967HAB (65229)	1139

C9H10N2O3		HL					CAS 62134-49-0	(9110)	
N-(2-Pyridyl)-3-carboxypropanamide;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaClO4	25°C	0.10M	U		K1=2.72 B2= 4.63	2002GSa (65262)	1140

C9H10N2O5		H3L					(4645)		
4,5,6,7-Tetrahydroindazol-3-one-5,5-dicarboxylic acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	50%	U			1969ZSa (65278)	1141
							K(Mn+H2L)=2.53		
							K(Mn+HL)=5.26		

C9H10N6		L					CAS 3656-02-8	(8053)	
4-Phenylazo-3,5-diaminopyrazole;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	25°C	40%	U		K1=6.02	1994AAb (65303)	1142
Medium: 40% EtOH/H2O, 0.10 M NaClO4. Also data for the 4'-methyl and 4'-carboxy-phenyl derivatives.									

C9H10N6B		HL					CAS 18583-60-3	(7936)	
Hydrotris(pyrazolyl)borate;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	dis	non-aq	25°C	100%	C			2001KSb (65311)	1143

$$K(\text{Mn}+2\text{HL}=\text{MnL}_2(\text{org})+2\text{H})=3.3$$

Method: solvent extraction into chloroform.

K: $\text{Mn}+2\text{HL}(\text{org})=\text{MnL}_2(\text{org})+2\text{H}$.

C9H10O2 HL CAS 699-91-2 (4594)
2-Hydroxy-3-methylacetophenone; $\text{HO}(\text{CH}_3).\text{C}_6\text{H}_3.\text{CO}.\text{CH}_3$

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	diox/w	30°C	75%	U		K1=8.30	1970KDa (65321)	1144
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Medium: 50% v/v dioxan, 0.5 M NaClO4

C9H10O2 HL CAS 6921-64-8 (4595)
2-Hydroxy-4-methylacetophenone; $\text{HO}(\text{CH}_3).\text{C}_6\text{H}_3.\text{CO}.\text{CH}_3$

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	diox/w	30°C	75%	U		K1=6.90 B2=12.53	1970KDa (65328)	1145
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Medium: 50% v/v dioxan, 0.5 M NaClO4

C9H10O2 HL CAS 1450-72-2 (4596)
2-Hydroxy-5-methylacetophenone; $\text{HO}(\text{CH}_3).\text{C}_6\text{H}_3.\text{CO}.\text{CH}_3$

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	diox/w	30°C	75%	U		K1=6.82 B2=12.04	1970GMe (65335)	1146
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Medium: 50% v/v dioxan, 0.5 M NaClO4

C9H10O2 HL CAS 610-99-1 (4597)
2-Hydroxypropiophenone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	diox/w	30°C	75%	U		K1=7.42	1970KDa (65345)	1147
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Medium: 75% dioxan, 0.1 M NaClO4

C9H10O3 H2L CAS 1643-34-0 (4598)
2,6-Dihydroxy-4-methylacetophenone; $(\text{HO})_2(\text{CH}_3).\text{C}_6\text{H}_2.\text{CO}.\text{CH}_3$

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	diox/w	30°C	75%	U		K1=3.25	1970KDa (65431)	1148
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Medium: 75% dioxan, 0.1 M NaClO4

C9H10O3 HL Phenyllactic CAS 828-01-3 (1190)
2-Hydroxy-3-phenylpropanoic acid, b-Phenyllactic acid; $\text{C}_6\text{H}_5.\text{CH}_2.\text{CH}(\text{OH}).\text{COOH}$

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	sp	oth/un	?	?	U		K1=6.6	1976SCb (65450)	1149
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 C9H10O3S HL CAS 18619-21-2 (4637)
 (2-Methoxyphenylthio)ethanoic acid; CH3O.C6H4.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	ISE	KNO3	25°C	0.10M	C			K1=0.51	1972FGb (65500)	1150
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By competition with Ag+ using Ag ISE

 C9H10O3S HL CAS 3996-32-5 (4638)
 (3-Methoxyphenylthio)ethanoic acid; CH3O.C6H4.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	ISE	KNO3	25°C	0.10M	C			K1=0.59	1972FGb (65509)	1151
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By competition with Ag+ using Ag ISE

 C9H10O3Se HL (4640)
 (2-Methoxyphenylseleno)ethanoic acid; CH3O.C6H4.Se.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	ISE	KNO3	25°C	0.10M	C			K1=0.49	1972FGb (65522)	1152
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By competition with Ag+ using Ag ISE

 C9H10O8 H4L CAS 3724-52-5 (1264)
 cis-1,2,3,4-Cyclopentanetetracarboxylic acid; C5H6.(COOH)4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	NaClO4	30°C	0.19M	U			K1=5.50 B2=8.95	1985MSb (65646)	1153
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C9H11NOS HL CAS 34282-30-9 (3287)
 N-(Mercaptoacetyl)-4-methylanilide; CH3.C6H4.NH.CO.CH2.SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	diox/w	30°C	75%	U			K1=6.4	1961MAe (65676)	1154
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 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
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Mn++	gl	KNO3	25°C	0.10M	C	M			1989MAd (65954)	1155
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K(MnA+L)=3.83

B(MnAL)=8.88

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

Mn++	gl	NaCl	20°C	0.15M	M			K1=2.30	1985VDa (65955)	1156
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Mn++	gl	NaCl	20°C	0.15M	U	M	K1=2.30	1983VDb	(65956)	1157

Mn++	EMF	KNO3	20°C	0.10M	U	T	K1=2.39	1973BSf	(65957)	1158
K1(30 C)=2.37, K1(40 C)=2.33, K1(50 C)=2.31, K1(60 C)=2.39										

Mn++	gl	KCl	25°C	0.10M	U	T	K1=2.94	1971SSc	(65958)	1159
K1(35 C)=2.89, K1(45 C)=2.84										

C9H11NO2		HL	B-Phenylalanine		CAS 614-19-7		(187)			
3-Amino-3-phenyl-propanoic acid; H2N.CH(C6H5).CH2.COOH										

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

Mn++	EMF	KNO3	20°C	0.10M	U	T	K1=2.13	1973BSf	(66010)	1160
K1(30 C)=2.02, K1(40 C)=1.97, K1(50 C)=1.95, K1(60 C)=1.91										

C9H11NO3		HL					(6512)			
2-Amino-2-(4'-methoxyphenyl)ethanoic acid; NH2.CH(C6H4OCH3)COOH										

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

Mn++	gl	KNO3	25°C	0.10M	M		K1=2.65 B2=4.86	1990SMa	(66056)	1161

C9H11NO3		H2L	o-Tyrosine		CAS 7432-92-9		(735)			
2-Amino-3-(2-hydroxyphenyl)propanoic acid; HO.C6H4.CH2.CH(NH2).COOH										

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

Mn++	gl	KCl	25°C	0.20M	U	H	B2=7.7	1984KGa	(66064)	1162
							B(MnHL)=13.47			
							B(MnHL2)=17.8			
DH(MnHL)=-26 kJ mol-1;DH(MnHL2)=-29;DH(MnL2)=-5										

C9H11NO3		H2L	m-Tyrosine		CAS 587-33-7		(736)			
2-Amino-3-(3-hydroxyphenyl)propanoic acid; HO.C6H4.CH2.CH(NH2).COOH										

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

Mn++	gl	KCl	25°C	0.20M	U	H	B2=5.6	1984KGa	(66075)	1163
							B(MnHL)=12.72			
							B(MnH2L2)=24.6			
							B(MnHL2)=15.7			
DH(MnHL)=-26 kJ mol-1; DH(MnH2L2)=-51; DH(MnHL2)=-28; DH(MnL2)=13 kJ mol-1										

C9H11NO3		H2L	Tyrosine		CAS 60-18-4		(4)			
2-Amino-3-(4-hydroxyphenyl)propanoic acid; HO.C6H4.CH2.CH(NH2).COOH										

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

Mn++ gl KCl 25°C 0.20M U H B2=6.7 1984KGa (66232)1164
 B(MnHL)=13.08
 B(MnHL2)=16.8
 B(MnH2L2)=25.7

DH(MnHL)=-24 kJ mol⁻¹; DH(MnH2L2)=-48; DH(MnHL2)=-25; DH(MnL2)=15

Mn++ gl KCl 25°C 0.10M U M K1=2.91 B2=6.42 1983MDc (66233)1165

Mn++ gl oth/un 20°C 0.01M U 1952ALa (66234)1166
 K(Mn+HL)=2.4

C9H11NO3 HL Peonoloxime (6250)
 2-Hydroxy-4-methoxyacetophenoneoxime; CH3O.C6H3(OH).C(:NOH).CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	28°C	50%	U		K1=5.67 B2=10.75	1979BRb (66271)	1167

C9H11NO3 H2L (6713)
 N-Ethyl-3,4-dihydroxybenzamide; (HO)2C6H3.CO.NH.CH2CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++ gl NaClO4 25°C 1.00M U 1992AGc (66300)1168
 K(Mn+H2L=MnL+2H)=-13.25
 K(MnL+H2L=MnL2+2H)-15.30

For 5-bromo analogue values are: -11.20, -12.95; 5-nitro: -9.78, -10.89;
 5-fluoro: -11.75, -13.63

C9H11NO4 H3L DOPA CAS 59-92-7 (5)
 2-Amino-3-(3,4-dihydroxyphenyl)propanoic acid; H2NCH(CH2C6H3(OH)2)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++ sp KCl 25°C 0.20M C 1983KGa (66399)1169
 K(MnL2+H)=11.32
 K(MnHL2+H)=9.67

Microconstants also reported.

Mn++ gl KCl 25°C 0.20M C K1=8.14 B2=12.43 1983KGb (66400)1170
 B(MnHL)=17.76
 B(MnH2L2)=33.43
 B(MnHL2)=23.75

C9H11NO4S H2L CAS 1080-44-0 (4682)
 N-(4-Toluenesulfonyl)glycine, N-tosylglycine; CH3.C6H4.SO2.NH.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++ vlt oth/un 25°C 0.10M U K1=8.85 1968RFa (66424)1171

C9H11N3O2 H2L CAS 36408-72-7 (7572)
2,6-Diacetylpyridine dioxime; C5H3N(C(=NOH)CH3)2

Mn⁺⁺ kin alc/w 25°C 24% U 1998YGa (66480)1172
*K(MnH₂L)=-7.0

C9H11N3O2S HL (1273)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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$$B(\text{MnHL}(\text{histamine})) = 11.84$$

Mn++ gl KNO3 45°C 0.10M U K1=2.60 1981TKa (67067)1187

C9H14N2O12P2 H4L UDP CAS 58-98-0 (3288)
 Uridine-5'-diphosphoric acid;

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

Mn++ gl NaNO3 25°C 0.10M M K1=4.07 1999SSa (67161)1188
 K(Mn+H2L)=2.3
 K(MnHL+H)=4.6

C9H14N3O8P H2L CMP-5 CAS 63-37-6 (1243)
 Cytidine-5'-monophosphoric acid, Cytidilic acid;

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

Mn++ gl KNO3 25°C 0.10M C M K1=2.79 2001AAa (67255)1189
 Also data for ternary complexes with MOPSO, TAPSO and ACES.

Mn++ gl R4N.X 25°C 0.10M C T K1=2.36 1991SMa (67256)1190
 IUPAC evaluation

Mn++ gl NaNO3 25°C 0.10M C K1=2.10 1988MSa (67257)1191

Mn++ gl KNO3 35°C 0.10M U M 1986RRe (67258)1192
 K(Mn+HL+HA)=5.64
 K(Mn+HL+E)=6.61
 K(MnLE+H)=3.66
 K(Mn+L+HC)=6.49

K(MnLC+H)=3.84; K(Mn+L+HD)=6.00. HA is glycine; H2E is oxalic acid;
 C is histamine; HD is histidine.

Mn++ gl NaNO3 35°C 0.10M U M K1=2.65 1985KSc (67259)1193
 K(Mn(phen)+L)=3.65
 K(Mn(GlyGly)+L)=1.44
 B(Mn(salicylate)+L)=0.15

Mn++ gl KCl 25°C 0.10M U K1=2.37 1984MDb (67260)1194

C9H14N4O3 HL Carnosine CAS 305-84-0 (272)
 3-Alanyl-histidine; H2N.CH2.CH2.CO.NH.CH(CH2.C3H3N2).COOH

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

Mn++ gl KNO3 25°C 0.10M U K1=4.40 1964LMa (67320)1195
 K(Mn+HL)=3.14

C9H14N5O3P H2L CAS 121149-93-7 (2512)
 9-(4-Phosphonobutyl)adenine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	0.10M	M		K1=2.47 K(Mn+HL)=0.4 *K(MnHL)=-5.6	2000GKa (67358)	1196

C9H15NO6		H3L					CAS 817-11-8	(3271)	
3,3',3''-Nitrilotripropanoic acid; (HOOC.CH2.CH2)3N									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	cal	KNO3	25°C	0.10M	C	H		1983GSb (67434)	1197
DH(K1)=0.47 kJ mol-1, DS(K1)=54.4 J K-1 mol-1									

C9H15NO6P2		H4L					(6888)		
N-Benzyl-N-methylaminomethylenedi(phosphonic acid); C6H5.CH2.N(CH3)CH(PO3H2)2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.10M	M		K1=7.03 K(Mn+HL)=6.38	1978GMF (67447)	1198
Cu and Zn form precipitates at pH 3.7-8.4 and 4.7-9.5 resp. (0.001 M)									

C9H15NO6P2		H4L					CAS 6056-53-7	(1337)	
N-Benzyliminobis(methylenephosphonic) acid; C6H5CH2N(CH2PO3H2)2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.20M	C		K1=6.96 B(MnHL)=15.07 B(MnH2L)=19.82 B(MnH-1L)=-4.08	2000KKa (67461)	1199

Mn++	gl	KNO3	25°C	1.00M	M		K1=6.54 K(Mn+HL)=3.23	1982BGb (67462)	1200

C9H15NO6S		H3L		DCMM			CAS 72306-91-3	(8239)	
Dicarboxymethyl-N,N-methionine acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaCl	25°C	0.50M	C		K(Mn+HL)=3.15	1980MFC (67472)	1201
Additional methods: conductivity, spectrophotometry									

C9H15N2O15P3		H5L		UTP			CAS 63-39-8	(407)	
Uridine-5'-triphosphoric acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

C9H16N3O14P3 H4L CTP CAS 65-47-4 (406)
Cytidine-5'-triphosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	R4N.X	25°C	0.10M	C	TI	R	K1=5.08 K(Mn+HL)=3.0	1991SMa	(67705)1212
IUPAC evaluation										
Mn++	gl	NaNO3	25°C	0.10M	C			K1=4.90 K(Mn+HL)=3.1 K(MnL+H)=4.75	1987STb	(67706)1213
Mn++	gl	KCl	25°C	0.10M	U			K1=4.63 B(MnHL)=8.97	1984MDb	(67707)1214
Mn++	gl	KNO3	25°C	0.10M	U	T H		K1=4.56 K(Mn+HL)=4.24	1983RRe	(67708)1215
Also data for 35 and 45 C. At 45 C: K1=4.85, K(Mn+HL)=4.01. DH(K1)=-18.8 kJ mol ⁻¹ , DS(K1)=24 J K ⁻¹ mol ⁻¹ ; DH(Mn+HL)=-20.9, DS=11										
Mn++	gl	NaClO4	25°C	0.10M	C			K1=4.74 K(Mn+HL)=2.69 K(MnL+H)=4.46	1977SIc	(67709)1216
Mn++	nmr	NaClO4	25°C	0.10M	U			K(Ni(OH)L+H)=9.41	1975SIb	(67710)1217
Mn++	nmr	NaClO4	25°C	0.10M	U			K(Mn(OH)L+H)=10.87	1975SIb	(67711)1218
Mn++	gl	KNO3	35°C	0.1M	C	I		K1=4.43 K(Mn+HL)=4.10	1975TRc	(67712)1219

Mn++ ix NaCl 23°C 0.10M U K1=4.78 1958Waa (67713)1220

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
Mn++	ix	oth/un	25°C	0.16M	U		K1=1.03	1957LWc (67793)	1221

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
Mn++	gl	KCl	25°C	0.24M	U		K1=0.95	1980FMd (67815)	1222

C9H17N06S HL (6381)

2-(D-Deoxyglucosyl)thiazolidine-4-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	NaCl04	25°C	0.10M	C			K1=2.43 B(Mn2H-1L2)=-0.32 B(Mn2H-2L2)=-9.41 B(Mn2H-4L2)=-29.66	1992GBb (67834)	1223
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Data also for other sugar substituents (D and L arabinoso-, D-xylo-, D-ribo-D-lyxo-

C9H17N07S HL (6462)

2(RS)-1,2,3,4,5-Pentahydroxypentylthiazolidine-4(R)-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	NaCl04	25°C	0.10M	C			K1=2.35 B(Mn2H-1L2)=-0.47 B(Mn2H-2L2)=-10.21 B(Mn2H-4L2)=-30.10	1992GBb (67841)	1224
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Data also for other sugar substituents (D-gluco-, D-galacto-, D-manno-, D-rhamo

Mn++	gl	NaCl04	25°C	0.10M	C			K1=2.31 B(Mn2H-1L2)=0.66 B(Mn2H-2L2)=-10.3 B(Mn2H-4L2)=-30.40	1992GNa (67842)	1225
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C9H18N2O3 HL Ala-Leu CAS 1999-42-4 (264)

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	KCl	20°C	0.20M	U			K1=1.83	1982KRc (67908)	1226
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Using EPR spectroscopy: K1=1.89

C9H19N2O4+ H2L (3277)

2-Di(carboxymethyl)aminoethyltrimethylammonium cation
+

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	KCl	20°C	0.10M	U			K1=2.87	1955SAa (68003)	1227
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C9H20N3O7P H3L CAS 88794-71-2 (3887)

O-Phosphoryl-L-seryl-L-lysine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++ gl diox/w 25°C 50% U K1=5.49 B2=10.41 1972HUb (68610)1234
Medium: 50% v/v dioxan, 0.1 M KCl

C10H7NO2 HL CAS 132-53-6 (2524)

2-Nitroso-1-naphthol;

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

Mn++ gl diox/w 30°C 75% U K1=6.78 B2=12.20 1957CFa (68649)1235

Mn++ gl diox/w 30°C 75% U K1=7.10 B2=12.60 1954UFa (68650)1236

C10H7NO2 HL CAS 2598-30-3 (3317)

5-Formyl-8-hydroxyquinoline;

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

Mn++ gl diox/w 25°C 50% U K1=5.73 B2=10.70 1958JPa (68674)1237
K3=4.58

Medium: 50% dioxan, 0.3 M NaCl

C10H7NO2 HL Quinaldic acid CAS 93-10-7 (2209)

Quinoline-2-carboxylic acid;

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

Mn++ gl KNO3 25°C 0.10M U K1=7.40 B2=11.46 1988ZMa (68713)1238
K3=3.77

Mn++ gl oth/un 25°C 0.0 U K1=2.96 B2=5.92 1955LUa (68714)1239

C10H7NO2 HL CAS 86-59-9 (873)

Quinoline-8-carboxylic acid;

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

Mn++ gl alc/w 30°C 50% U K1=3.05 B2=5.65 1981RRa (68764)1240
Medium: 50% v/v EtOH, 0.1 M KNO3

Mn++ gl diox/w 25°C 50% U K1=4.2 1955HCb (68765)1241

Mn++ gl oth/un 25°C 0.0 U K1=2.11 B2=4.86 1955LUa (68766)1242

C10H7NO2S HL CAS 10958-38-5 (3922)

3-Phenyl-1,2-thiazole-5-carboxylic acid;

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

Mn++ gl diox/w 25°C 50% U K1=1.51 1968EGb (68780)1243
Medium: 50% dioxan, 0.1 M NaClO4

C10H7N04 H3L Xanthurenic aci CAS 59-00-7 (1539)
4,8-Dihydroxy-2-quinolinecarboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	50%	U		K1=5.5 B2=10.50 K(Mn(OH)L+H)=10.7	1964BFa (68795)	1244

C10H7N05S H2L CAS 97573-20-5 (3332)
1,2-Naphthoquinone-4-sulfonic acid-2-oxime

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	oth/un	25°C	0.01M	U			1961MAd (68801)	1245
							K(Mn+HL=MnL+H)=-4.61		

C10H7N05S 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
Mn++	sp	oth/un	25°C	0.0	U		K1=2.07	1966MAg (68889)	1246

C10H7N08S2 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
Mn++	oth	KCl	25°C	0.10M	U	I	K1=2.7	1967MAi (69019)	1247
							K1=3.7(I=0)		

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.10M	U			1961MAd (69020)	1248
							K(Mn+HL=MnL+H)=-4.19		

C10H7N302S L CAS 102036-43-1 (8473)
2-(1,3-Dihydro-1,3-dioxo-2H-inden-2-ylidene)hydrazinecarbothioamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	30°C	60%	M		K1=4.10	1996HTb (69074)	1249
							Medium: 60% v/v EtOH/H2O, 0.04 M KCl.		

C10H7N303 L CAS 114526-85-1 (8474)
2-(1,3-Dihydro-1,3-dioxo-2H-inden-2-ylidene)hydrazinecarboxamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	30°C	60%	M		K1=3.90	1996HTb (69077)	1250
							Medium: 60% v/v EtOH/H2O, 0.04 M KCl.		

C10H7N3O4 H2L 1-Ph-violuric (957)
1-Phenyl-alloxan-5-oxime, (1-Phenyl-5-isonitrosobarbituric acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	alc/w	18°C	50%	U T			K1=5.30 B2=9.78	1982SGa (69085)	1251

Medium: 50% v/v EtOH/H2O, 0.1 M NaClO4

C10H7N4O7ClS H3L CAS 3373-16-8 (2912)
(2-Hydroxy-3-sulfo-5-chlorophenyl)-1-azobarbituric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	sp	oth/un	25°C	0.03M	U				1981SPc (69089)	1252

K(Mn+HL)=6.02

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
Mn++	dis	NaNO3	25°C	0.10M	C			K1=3.1	1994SDc (69155)	1253

Method: solvent extraction into CHCl3

Mn++	dis	NaClO4	25°C	1.0M	C	M		K1=0.80 B2= 2.63	1977SMe (69156)	1254
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K(MnL2(org)+A(org))=6.1
K(MnL2(org)+2A(org))=10.4
Method: distribution from 1.0 M NaClO4 into CCl4/HL/tri-octylphosphine oxide (A). K(Mn+2HL(org)=MnL2(org)+2H)=-12.62.

Mn++	gl	oth/un	?	0.0	U			B2=8.20	1951UFa (69157)	1255
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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
Mn++	cal	non-aq	25°C	100%	U	H		K1=1.53 B2= 2.22	1997KYb (69602)	1256

Medium: N,N-dimethylformamide, 0.4 M Et4NClO4.
DH(K1)=-6.0 kJ mol-1, DH(B2)=-13.1 kJ mol-1.

Mn++	EMF	NaClO4	20°C	1.50M	U			K1=2.4 B2=4.6	1990IAa (69603)	1257
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B3=6.2
Medium: LiClO4

Mn++	sp	non-aq	25°C	100%	C			K1=2.5	1987AWa (69604)	1258
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Medium: DMSO, 0.06 M NaClO4

Mn++	gl	diox/w	25°C	50%	U	M		K1=5.71 B2=10.67	1984ABb (69605)	1259
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B(MnL(PFHA))=10.86

B(MnL(PTHA))=11.02

Experimental details given in S.A.Abbasi, Thermochim. Acta 30 (1980), 50%H₂O
PFHA=N-phenyl-2-furylhydroxamate, PTHA=N-phenyl-2-thenohydroxamate

Mn++	sp	NaClO ₄	25°C	0.20M	U	I	K ₁ =2.97	1983EBa (69606)	1260
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Mn++	sp	NaClO ₄	21°C	0.30M	C		K ₁ =2.73	1982DEa (69607)	1261
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Value is for pressure of 10 bar. Data for 10-2000 bar.

Mn++	sp	non-aq	25°C	100%	U		K ₁ =3.10	1981AWa (69608)	1262
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Medium: hexamethylphosphoric triamide

Mn++	gl	NaClO ₄	25°C	0.10M	C	M		1977SFa (69609)	1263
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K(MnLA)=5.36

K(MnA+L)=2.64

K(MnL+A)=2.74

B(MnLB)=11.01

K(MnB+L)=3.04; B(Mn(ATP)L)=7.35, K(Mn(ATP)+L)=2.65; B(MnCL)=7.40; K(MnC+L)=2.74. H₂A=malonic acid, H₂B=pyrocatechol, C=inosinetriphosphate

Mn++	kin	NaClO ₄	25°C	0.30M	U		K ₁ =2.59	1974HMa (69610)	1264
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Mn++	sp	NaClO ₄	25°C	0.30M	U		K ₁ =2.57	1974HMa (69611)	1265
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Mn++	kin	NaClO ₄	25°C	0.30M	U	M		1974HMa (69612)	1266
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K(MnA+L)=2.08

H₅A=triphosphoric acid

Mn++	kin	NaClO ₄	25°C	0.30M	U	M		1974HMa (69613)	1267
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K(Mn(ATP)+L)=2.65

Mn++	kin	alc/w	25°C	0.20M	U		K ₁ =2.7	1973BMb (69614)	1268
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Medium: MeOH, 0.2 M NaClO₄

Mn++	dis	KNO ₃	30°C	1.0M	U	H	K ₁ =2.54	B ₂ =4.39	1965DDa (69615)	1269
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K₃=1.51

By calorimetry: DH(K₁)=-23.9 kJ mol⁻¹, DS=-30.5 J K⁻¹ mol⁻¹;

DH(B₂)=-25.5, DS=0; DH(B₃)=-26.0, DS=27.2

Mn++	cal	NaNO ₃	20°C	0.10M	U	H		1963ANb (69616)	1270
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DH(K₁)=-14.6 kJ mol⁻¹, DS=0

Mn++	gl	NaNO ₃	20°C	0.10M	U		K ₁ =2.6	1963ANG (69617)	1271
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Mn++	gl	NaClO ₄	25°C	1.0M	U	H	K ₁ =4.06	B ₂ =7.84	1962ABa (69618)	1272
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K₃=3.63

DH(K₁)=-18.0 kJ mol⁻¹, DS=17; DH(K₂)=-18.0, DS=13; DH(K₃)=-18.0, DS=8

Mn++	dis	KCl	25°C	0.10M	U		K ₁ =2.62	B ₂ =4.62	1962IMa (69619)	1273
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K3=1.1

Mn++ sp oth/un 25°C 0.01M U K1=2.48 1955LFb (69620)1274

Mn++ sp oth/un ? 0.50M U 1955MBb (69621)1275

B3=6.3

Mn++ sp oth/un 27°C 0.50M U K1=2.5 1955SKa (69622)1276

C10H8N2O2 HL CAS 80690-06-8 (874)

5-Aminoquinoline-8-carboxylic acid;

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

Mn++ gl alc/w 30°C 50% U K1=3.84 B2=6.78 1981RRa (69676)1277

Medium: 50% v/v EtOH, 0.1 M KNO3

C10H8N2O2 HL CAS 5603-22-5 (2753)

8-Hydroxyquinoline-2-carboxaldehyde oxime

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

Mn++ gl diox/w 25°C 50% U K1=5.83 B2=11.63 1967SFa (69682)1278

C10H8N2O2S HL CAS 15112-10-4 (8299)

N-Phenyl-2-thiobarbituric acid;

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

Mn++ gl NaClO4 31°C 0.10M U T H K1=5.50 B2= 9.64 1984SJa (69692)1279

Also data for 18 and 42 C. DH(K1)=-57.2 kJ mol⁻¹, DS(K1)=-83.3 J K⁻¹ mol⁻¹

DH(K2)=-32.0, DS(K2)=-26.3. Also data for N-tolyl- derivatives.

C10H8N2O5 HL CAS 36874-89-9 (6226)

4-Nitromaleanilic acid; HOOC.CH:CH.CO.NH.C6H4.NO2

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

Mn++ gl alc/w 22°C 80% U T H K1=7.50 B2=12.85 1985SAb (69708)1280

30 C: K1= 7.40, K2=5.30; 40 C: K1= 7.30, K2=5.25

DH(K1)=-16.9 kJ mol⁻¹, DS=85 J K⁻¹ mol⁻¹; DH(K2)=-10.5, DS=67

C10H9NO HL 8-OH-Quinaldine CAS 826-81-3 (998)

2-Methyl-8-hydroxyquinoline;

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

Mn++ cal diox/w 25°C 50% U H 1968GFa (70050)1281

Medium: 50% dioxan, 0.1 M NaClO4. DH(K1)=-13.8 kJ mol⁻¹, DS=83.6 J K⁻¹ mol⁻¹;

DH(B2)=-26.3, DS=163

Mn++ gl diox/w 25°C 50% U K1=6.81 B2=13.10 1967SFa (70051)1282

Mn++ gl diox/w 40°C 50% U T H K1=7.40 B2=13.90 1954JFa (70052)1283
K1=7.75(0.7 C),7.44(25 C); K2=6.85(0.7 C),6.55(25 C).
DH(B2)=-27.6 kJ mol⁻¹, DS=176 J K⁻¹ mol⁻¹

C10H9NO HL CAS 3846-73-9 (3320)
8-Hydroxy-4-methylquinoline;

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

Mn++ gl diox/w 25°C 50% U H K1=7.74 B2=14.81 1968GFa (70095)1284
Medium: 50% dioxan, 0.1 M NaClO4. By calorimetry DH(K1)=-17.1 kJ mol⁻¹,
DS=92 J K⁻¹ mol⁻¹; DH(B2)=-26.7, DS=192

Mn++ gl diox/w 40°C 50% U T H K1=8.12 B2=15.06 1954JFa (70096)1285
K1=8.63(0.7 C),8.31(25 C); K2=7.60(0.7 C),7.24(25 C).
DH(B2)=-48.5 kJ mol⁻¹, DS=134 J K⁻¹ mol⁻¹

C10H9NO2 HL CAS 57334-35-7 (3905)
2-Hydroxymethyl-8-hydroxyquinoline;

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

Mn++ gl diox/w 25°C 50% U K1=7.5 1967SFa (70120)1286

C10H9NO3 HL Maleanilic acid CAS 37902-58-2 (6225)
Maleanilic acid; HOOC.CH:CH.CO.NH.C6H5

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

Mn++ gl alc/w 22°C 80% U T H K1=5.80 B2=11.00 1985SAb (70157)1287
Medium:MeOH/H2O,0.1 NaClO4. 30 C: K1= 5.70, K2=5.15; 40 C: K1= 5.60, K2=5.10
DH(K1)=-15.8 kJ mol⁻¹, DS=58 J K⁻¹ mol⁻¹; DH(K2)=-10.5, DS=64

C10H9NO3S H2L CAS 49608-51-7 (8280)
4,5-Dihydro-2-(2-hydroxyphenyl)-4-thiazolecarboxylic acid,
Deazademethyl-desferrithiocin;

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

Mn++ gl KNO3 25°C 0.10M C K1=6.35 B2=11.55 1990ARa (70170)1288

Mn++ gl KNO3 25°C 0.10M C K1=6.35 B2=11.55 1990ARa (70171)1289

C10H9NO7S2 H3L CAS 82-47-3 (6247)
8-Amino-1-hydroxynaphthalene-3,6-disulfonic acid;

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

Mn++ gl oth/un 20°C 0.0 U K1=2.18 1961PEb (70222)1290

C10H9N08 H2L CAS 83785-11-9 (685)
2-Nitro-1,4-di(carboxymethoxy)benzene; O2N.C6H3.(OCH2COOH)2

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

Mn++ gl oth/un 30°C ? U K1=3.47 1985TZa (70237)1291

C10H9N3 L Dipyrldylamine CAS 1202-34-2 (2428)
(2,2'-Dipyrldyl)amine; C5H4N.NH.C5H4N

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

Mn++ gl KNO3 25°C 0.10M U TIH K1=1.78 B2=5.94 1976BBE (70339)1292

Mn++ EMF KNO3 20°C 0.10M U K1=2.0 1971ANa (70340)1293

C10H9N30S HL CAS 54723-30-7 (3924)
3-(2'-Thiazolylazo)-4-methylphenol; CH3.C6H3(OH).N:N.C3H2N2

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

Mn++ gl alc/w 25°C 50% U B2=7.6 1967NPb (70374)1294
Medium: 50% MeOH, 0.1 M NaClO4

C10H9N30S2 L CAS 59224-23-6 (8472)
3-(2-Oxo-3-indolinylydene)dithiocarbazic acid methyl ester;

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

Mn++ gl alc/w 30°C 60% M K1=3.60 1996HTb (70377)1295
Medium: 60% v/v EtOH/H2O, 0.04 M KCl.

C10H9N302 HL CAS 56634-85-6 (1326)
4-Oximino-3-methyl-1-phenyl-2-pyrazolin-5-one;

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

Mn++ gl alc/w 20°C 50% U T K1=2.50 B2=4.80 1981SSc (70391)1296
At 30 C: K1=2.35, B2=4.75

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

Mn++ gl diox/w 20°C 75% M T K1=9.76 B2=16.65 1980GMd (70436)1297

C10H10NO3Br HL CAS 61563-99-3 (1991)
4-Bromo-N-hydroxyacetoacetanilide; CH3.CO.CH2.CO.N(OH).C6H4.Br

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	none	20°C	0.0	U			K1=5.57 B2=8.79	1979KSb (70505)	1298

C10H10NO3Cl HL CAS 75813-79-5 (1962)
4-Chloro-N-hydroxyacetoacetanilide; CH3.CO.CH2.CO.N(OH).C6H4.Cl

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	none	20°C	0.0	U			K1=4.96 B2=9.44	1979KSb (70510)	1299

C10H10N2O HL CAS 70125-17-6 (3906)
2-Aminomethyl-8-hydroxyquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	50%	U			K1=8.32 B2=15.84	1967SFa (70534)	1300

C10H10N2O3S H2L CAS 76045-30-2 (7218)
Desferri-ferrithiocin,
2-(3-Hydroxypyridin-2-yl)-4-methyl-4,5-dihydrothiazole-4-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	C			K1=7.28 B2=13.71	1990ARa (70563)	1301

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
Mn++	gl	alc/w	25°C	50%	U	M		K1=3.51 B2=6.00	1986SKe (70615)	1302

K(MnA+L)=1.99

Medium: 50% v/v EtOH/H2O, 0.1 M NaCl. H3A=nitrolotrientanoic acid

Mn++	gl	mixed	25°C	65%	U	T		K1=3.51 B2=6.00	1982KNc (70616)	1303
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Medium: 65% DMSO/H2O, 0.1 KNO3

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
Mn++	dis	NaCl04	25°C	1.0M	C	M			1977SMe (70749)	1304

K(MnL2(org))+A(org))=3.81
K(MnL2(org))+2A(org))=5.40

Method: distribution from 1.0 M NaCl04 into CCl4/HL/tri-octylphosphine

oxide (A). $K(\text{Mn}+2\text{HL}(\text{org})=\text{MnL}_2(\text{org})+2\text{H})=-8.4$.

Mn++ gl diox/w 25°C 50% U K1=4.95 B2=9.35 1974DHa (70750)1305

Mn++ gl diox/w 30°C 75% U K1=8.66 B2=15.78 1955H0a (70751)1306

C10H10O3 HL CAS 16636-62-7 (3298)

2-Hydroxybenzoylacetone; $\text{HO.C}_6\text{H}_4.\text{CO.CH}_2.\text{CO.CH}_3$

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

Mn++ gl diox/w 30°C 75% U K1=7.66 B2=14.27 1955H0a (70800)1307

C10H10O4 H2L CAS 616-75-1 (4700)

Benzylmalonic acid; $\text{HOOC.CH}(\text{CH}_2.\text{C}_6\text{H}_5).\text{COOH}$

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

Mn++ gl none 25°C 0.0 U K1=2.98 1970NPb (70822)1308

C10H10O6 H2L CAS 5411-14-3 (2394)

1,2-Phenylenedioxodiethanoic acid; $\text{C}_6\text{H}_4(\text{O.CH}_2.\text{COOH})_2$

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

Mn++ gl NaClO4 25°C 0.10M U K1=2.8 1968SMb (70855)1309

C10H11NO2 HL (4730)

N-Phenyl-(trans-2-butenyl)hydroxamic acid; $\text{CH}_3.\text{CH}:\text{CH.CO.N}(\text{C}_6\text{H}_5).\text{OH}$

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

Mn++ gl diox/w 35°C 50% U K1=6.41 B2=11.00 1970BTc (70922)1310

C10H11NO2S HL CAS 42607-21-6 (8331)

2-Phenylthiazolidine-4-carboxylic acid;

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

Mn++ gl KNO3 30°C 0.10M U TIH K1=3.25 1983RKb (70927)1311

At I=0.0, K1=3.42. Data for 25-50 C. $\text{DH}(K_1)=-19.0 \text{ kJ mol}^{-1}$,

$\text{DS}(K_1)=2.6 \text{ J K}^{-1} \text{ mol}^{-1}$.

C10H11NO3 HL (1960)

N-Hydroxyacetoacetanilide; $\text{CH}_3.\text{CO.CH}_2.\text{CO.N}(\text{OH}).\text{C}_6\text{H}_5$

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

Mn++ gl diox/w 20°C 82% U K1=6.19 B2=9.81 1979KSb (70941)1312

C10H11NO4 H2L CAS 1137-73-1 (2567)
 N-Phenyliminodiethanoic acid; C6H5.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	cal	KNO3	25°C	0.1M	C	H		1991ANa (71004)	1313

DH(K1)=24.2 kJ mol-1

Mn++	cal	KNO3	25°C	0.10M	U		K1=1.65	1991Aa (71005)	1314
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DH(K1)=24.27 kJ mol-1, DS(K1)=112.97 J K-1 mol-1

Mn++	gl	KCl	20°C	0.10M	U		K1=1.58	1955SAa (71006)	1315
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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
Mn++	EMF	oth/un	?	?	U		K1=7.82 K(Mn+HL)=2.85	1968TRc (71043)	1316

C10H11O2Cl HL CAS 77103-89-0 (6319)
 5-Chloro-2-hydroxybutyrophenone; (HO)(Cl)C6H3.CO.CH2.CH2.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	40°C	75%	U		K1=6.90	1974PSc (71104)	1317

Medium: 75% dioxan/H2O, 0.1 M NaClO4

C10H11O4P H2L CAS 58942-13-5 (7014)
 Phenylphosphino-P,P-diethanoic acid, Diphenylphosphinediethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	50%	U		K1=2.69	1979POa (71140)	1318

Medium 50% v/v dioxan/H2O, 0.1 M NaClO4

C10H12N2O HL CAS 155055-22-4 (8339)
 3-(Phenylimino)-2-butanone oxime;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	30°C	50%	U	T	K1=6.95 B2=12.91	1993HMD (71164)	1319

Medium: 50% v/v MeOH/H2O, 0.1 M NaClO4. Data for 40 and 50 C.
 For 2-OH deriv., K1=5.78, for 3-OH, K1=5.86, for 4-OH, K1=6.12.

C10H12N2O2 HL CAS 70263-59-1 (8479)
 2-(Phenylhydrazono)butanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Data for 25-45 C. DH(K1)=-3.10 kJ mol⁻¹, DS(K1)=41.0 J K⁻¹ mol⁻¹.

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
Mn++	gl	KNO3	25°C	0.10M	U	M		1990RRa (71490)1328 K(Mn(His)+H+L)=2.86 B(MnHL(histamine))=8.96 B(MnH2L(catechol))=9.13 K(Mn(Gly)+H+L)=2.86		

Mn++	gl	NaNO3	25°C	0.10M	C			1989KTa (71491)1329 K(Mn+H-1L)=0.84		
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Mn++	gl	KNO3	35°C	0.10M	U	M		1983RRb (71492)1330 K(Mn+HL)=2.57 K(Mn+2HL)=5.76 K(MnGly+H2L)=2.8		
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Mn++	gl	KNO3	25°C	0.10M	U	T	H	1983RRc (71493)1331 K(Mn+2HL)=5.31		
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DH=-11.7kJ mol⁻¹. At 5 C: K=6.36; 35 C: 5.76; 45 C: 5.61

Mn++	gl	KNO3	45°C	0.10M	U	M		1979RRb (71494)1332 K(Mn+HL+TetraMeen)=5.00 K(Mn+HL+Sulphosalicylate)=2.75		
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Mn++	gl	KNO3	45°C	0.10M	U	M		1979RRb (71495)1333 K(Mn+HL+bpy)=6.82		
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Mn++	gl	KNO3	25°C	0.10M	U	T		1978RRa (71496)1334 K(Mn+HL)=2.48		
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C10H12N4O6 HL CAS 40281-74-1 (3910)
Purin-6-one 9-ribose N(1)-oxide (Inosine N(1)-oxide)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	sp	NaClO4	25°C	0.10M	U			K1=2.5	1965SIa (71510)1335	

C10H12N5O6P HL Cyclic-AMP CAS 37063-35-7 (2147)
Adenosine-3',5'-cyclophosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	nmr	oth/un	25°C	?	U	M		1977FHa (71513)1336 K1eff=1.15 K2eff=0.57		

Beff(Mn(ATP)L)=4.62

At pD 7.6 in D2O

C10H12O2 HL CAS 7624-24-2 (4702)

2-Hydroxy-4-methylpropiophenone; HO.C6H3(CH3).CO.CH2.CH3

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

Mn++ gl diox/w 30°C 75% U K1=7.34 1970KDa (71528)1337

Medium: 75% dioxan, 0.1 M NaClO4

C10H12O2 HL CAS 1901-78-6 (4701)

2-Hydroxybutyrophenone; HO.C6H4.CO.CH2.CH2.CH3

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

Mn++ gl KNO3 40°C 0.10M U K1=5.06 1973SPc (71533)1338

C10H12O2 HL CAS 1946-74-3 (202)

3-Isopropyltropolone;

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

Mn++ gl diox/w 30°C 50% U M K1=11.16 B2=17.54 1980Ksa (71592)1339
K(Mn(bpy)+L)=6.16

C10H12O2 HL CAS 499-44-5 (3303)

4-Isopropyltropolone;

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

Mn++ dis non-aq 25°C 100% C M 1997SNa (71632)1340
K(2Mn+4L=Mn2L4(org))=26.8

Method: solvent extraction from 0.10 M NaNO3 into CHCl3.

K is for: 2Mn(aq)+4L(aq)=Mn2L4(org). Data for ternary complexes with TOPO.

C10H12O4 HL CAS 90-24-4 (4704)

2-Hydroxy-4,6-dimethoxyacetophenone; (HO)(CH3O)2.C6H2.CO.CH3

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

Mn++ gl diox/w 30°C 75% U K1=6.77 B2=11.14 1970KDa (71665)1341

Medium: 75% dioxan, 0.1 M NaClO4

C10H13NO2 HL (4743)

N-Phenyl-n-butyrohydroxamic acid; CH3.CH2.CH2.CO.N(C6H5).OH

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

Mn++ gl diox/w 25°C 50% U K1=6.23 B2=10.76 1972STf (71719)1342

C10H13NO3S HL (3340)
N-(Mercaptoacetyl)-2,5-dimethoxyaniline; HS.CH2.CO.NH.C6H3(OCH3)2

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

Mn++ gl diox/w 30°C 75% U K1=6.4 1961MAe (71752)1343

C10H13N2O11P H3L Orotidylic acid CAS 68244-58-6 (6665)
Orotidine-5'-monophosphoric acid, uridine-5-carboxylic acid-5-monophosphoric acid;

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

Mn++ gl NaNO3 25°C 0.10M M K1=2.49 1991BSc (71793)1344

K(MnH-1L+H)=8.91

C10H13N4O8P H3L IMP CAS 131-99-7 (843)

Inosine-5'-monophosphoric acid;

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

Mn++ gl KNO3 25°C 0.10M C M K1=2.35 2001AAa (71858)1345

Also data for ternary complexes with MOPSO, TAPSO and ACES.

Mn++ gl NaNO3 25°C 0.10M M 1994SMb (71859)1346

K(Mn+HL)=2.31

*K(MnHL)=-8.21

C10H13N4O9P H3L (3930)

Inosine-5'-monophosphoric acid N(1)-oxide;

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

Mn++ sp NaClO4 25°C 0.10M U 1965SIa (71885)1347

K(Mn+HL)=2.85

C10H13N5O4 L Adenosine CAS 58-61-7 (2154)

Adenosine, Adenine-9-beta-D-ribofuranoside;

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

Mn++ sp oth/un 20°C var U K1=-0.82 1964SBb (71946)1348

Medium: 1-3 M Mn(ClO4)2

C10H13N5O5 HL Guanosine CAS 118-00-3 (1402)

2-Aminopurin-6-one-9-ribose;

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

Mn++ gl KNO3 25°C 0.10M C T HM 1988KR a (72013)1349

K(Mn+HL)=2.65

K(MnHL+HL)=3.49

Also data at 15, 35 and 45 C. DH(MnHL)=-7; DS=27. DH(MnH2L2)=-9.3; DS=35.

Also ternary complexes with bpy, phen and 5-sulfosalicylic acid

C10H13N5O5 L CAS 116-92-9 (2174)

Adenosine-N'-oxide;

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

Mn++ gl none 25°C 0.0 U K1=5.37 1960PEb (72033)1350

C10H14N4B- L (7239)

Bis(3,5-dimethylpyrazol-1-yl)borate; ((CH3)2C3H)2BH2-

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

Mn++ dis non-aq 25°C 100% U 1996KSa (72129)1351

K(Mn+2HL=MnL2(org)+2H)=-6.96

By solvent extraction into CHCl3

C10H14N5O6PS H2L AMPS CAS 19341-57-2 (8152)

Adenosine-5'-monothiophosphoric acid, 5-Thioadenylic acid;

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

Mn++ gl NaNO3 25°C 0.10M M K1=2.03 1997SSg (72153)1352

K(Mn+HL)=1.25

K(MnL+H)=4.05

Mn++ gl KNO3 25°C 0.10M U K1=2.03 1995SSe (72154)1353

C10H14N5O7P H2L AMP-2 CAS 81012-86-4 (2437)

Adenosine-2'-monophosphoric acid, 2-Adenylic acid;

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

Mn++ gl R4N.X 25°C 0.10M C TIH R K1=2.41 1991SMa (72187)1354

IUPAC evaluation. DH(K1)=9.2 kJ mol⁻¹ (tentative)

Mn++ gl NaNO3 25°C 0.10M U K1=2.14 1989MSf (72188)1355

Mn++ gl KNO3 40°C 0.10M U T H K1=2.35 1967TMf (72189)1356

K1=2.43(0.4 C), 2.41(12 C), 2.38(25 C). At 25 C: DH(K1)=-4.2 kJ mol⁻¹, DS=31 J

C10H14N5O7P H2L AMP-3 CAS 84-21-9 (2438)

Adenosine-3'-monophosphoric acid, 3-Adenylic acid;

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

Mn++ gl R4N.X 25°C 0.10M C TIH R K1=2.32 1991SMa (72240)1357
IUPAC evaluation: DH(K1)=9.6 kJ mol⁻¹ (tentative)

Mn++ gl NaNO3 25°C 0.10M U K1=2.06 1989MSf (72241)1358

Mn++ gl KNO3 40°C 0.10M U T H K1=2.25 1967TMf (72242)1359
K1=2.34(0.4 C), 2.31(12 C), 2.28(25 C). At 25 C: DH(K1)=-3.8 kJ mol⁻¹, DS=32 J

Mn++ ix NaClO4 25°C 0.10M U K1=1.86 1966DTa (72243)1360

Mn++ gl R4N.X 25°C 0.10M U K1=1.98 1966DTa (72244)1361
Medium: Me4NBr

Mn++ gl KNO3 25°C 0.10M U K1=2.28 1962TMa (72245)1362

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

Mn++ gl NaNO3 25°C 0.10M M K1=2.23 2003BSa (72460)1363
K(MnL+H)=4.3
K(Mn+HL)=0.3

Mn++ gl KNO3 25°C 0.10M C M K1=2.35 2001A0a (72461)1364
K(MnL+A)=2.94
B(MnLA)=5.29
K(MnL+B)=3.34
B(MnLB)=5.69

HA=POPSO, HB=HEPPSO.

Mn++ gl KNO3 25°C 0.10M C M K1=2.35 2000ADa (72462)1365
K(MnL+A)=4.74
B(MnLA)=7.09
K(MnL+B)=3.92
B(MnLB)=6.27

K(MnL+C)=3.45, B(MnLC)=5.80. HA=ACES, HB=MOPSO, HC=CHES.
Also data for TAPSO and DIPSO.

Mn++ gl NaNO3 25°C 0.10M C M K1=2.40 2000KHa (72463)1366
K(MnL+A)=2.48
B(MnLA)=4.88

H2A=salicylhydroxamic acid.

Mn++ gl NaNO3 25°C 0.10M M K1=2.23 1996SSd (72464)1367

Mn++ gl R4N.X 25°C 0.10M C TIH R K1=2.46 1991SMa (72465)1368
IUPAC evaluation. DH(K1)=9.2 kJ mol⁻¹ (tentative). 37 C, I=0.15 M: K1=2.38

Mn++ gl NaNO3 25°C 0.10M U K1=2.23 1989MSf (72466)1369

Mn++	gl	NaNO3	25°C	0.10M	C		K1=2.23	1988SMb (72467)	1370
Mn++	gl	KCl	25°C	0.10M	U	M	K1=3.30	1984DMc (72468)	1371
Mn++	gl	KCl	25°C	0.10M	U	M	B(MnL(Gly))=4.90	1983MDd (72469)	1372
Mn++	gl	KCl	25°C	0.10M	U		K1=2.02	1980DMa (72470)	1373
Mn++	gl	R4N.X	25°C	0.20M	M T H		K1=2.34	1977RSa (72471)	1374
Medium: 0.20 M Me4NBr, pH 7.5. Data for 1-45 C. DH(K1)=4.2 kJ mol-1, DS(K1)=59 J K-1 mol-1.									
Mn++	gl	KNO3	40°C	0.10M	U T H		K1=2.37	1967TMf (72472)	1375
K1=2.46(0.4 C),2.43(12 C),2.40(25 C). At 25 C: DH(K1)=-4.2 kJ mol-1, DS=32 J									
Mn++	gl	KNO3	25°C	0.10M	U		K1=2.35	1966DTa (72473)	1376
Mn++	gl	NaClO4	25°C	0.10M	U		K1=2.14	1964SBa (72474)	1377
Mn++	gl	KNO3	25°C	0.10M	U		K1=2.40	1962TMa (72475)	1378
Mn++	ix	oth/un	25°C	0.10M	U		K1=2.19	1961TDb (72476)	1379
Veronal buffer.									
Mn++	ix	NaCl	23°C	0.10M	U		K1=2.31	1958WAa (72477)	1380
Mn++	gl	R4N.X	25°C	0.20M	U		K1=2.19	1956SAa (72478)	1381
Medium: 0.2 M n-Pr4NCl									

C10H14N5O8P H2L CAS 4061-78-3 (3931)									
Adenosine-5'-monophosphoric acid N(1)-oxide;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaClO4	25°C	0.10M	U			1964SBa (72523)	1382
							K(Mn+HL)=2.14		
							K(MnL+H)=8.93		
By spectrophotometry: K1=5.71									

C10H14N5O8P H3L GMP-5 CAS 85-32-5 (2947)									
Guanosine-5'-monophosphoric acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	C	M	K1=2.37	2001AAa (72590)	1383
Also data for ternary complexes with MOPSO, TAPSO and ACES.									
Mn++	gl	NaNO3	25°C	0.10M	M			1994SMb (72591)	1384

K(Mn+HL)=2.39

*K(MnHL)=-8.58

C10H14O8S4 H4L CAS 10003-69-7 (3914)

1,1,2,2-Tetrathioethane-S,S',S'',S'''-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	NaClO4	25°C	0.10M	U			K1=2.32 B(MnHL)=6.41 B(MnH2L)=9.48	1973PPc (72628)	1385

Mn++	gl	oth/un	25°C	0.10M	U			K1=1	1972PPb (72629)	1386
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C10H15N2O8P H2L TMP-5 CAS 365-07-1 (2949)

Thymidine-5'-monophosphoric acid, Thymidylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	R4N.X	25°C	0.10M	C	T		K1=2.37 K(Mn+HL)=2.37	1991SMa (72701)	1387

IUPAC evaluation

Mn++	gl	NaNO3	25°C	0.10M	C			K(Mn+HL)=2.11	1988MSa (72702)	1388
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C10H15N4O14P3 H5L ITP CAS 35908-31-7 (2148)

Inosine 5'-triphosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	0.10M	C			K(Mn+HL)=5.21 K(MnHL+H)=4.35 K(Mn+H2L)=3.1	2001SBc (72764)	1389

Mn++	gl	R4N.X	25°C	0.10M	C	T		K(Mn+HL)=5.07	1991SMa (72765)	1390
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IUPAC evaluation

Mn++	nmr	NaClO4	25°C	0.10M	U			K(MnL+H)=8.93 K(Mn(OH)L+H)=11.24	1975SIb (72766)	1391
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By spectrophotometry, K(MnL+H)=8.8.

Mn++	gl	KNO3	25°C	0.10M	U	T		K(Mn+HL)=4.45	1973TRb (72767)	1392
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K(35 C)=4.62, K(45 C)=4.35

Mn++	ix	NaCl	23°C	0.10M	U				1958WAa (72768)	1393
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$$K(\text{Mn}+\text{HL})=4.57$$

C10H15N5O4S HL CAS 252909-87-8 (8773)
N-2-(4-Amino-1,6-dihydro-1-methyl-5-nitroso-6-oxopyrimidinyl)methionine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.10M	C			2003LAa (72827)	1394

$$B(\text{MnHL})=5.28$$

$$B(\text{MnHL2})=8.77$$

C10H15N5O10P2 H3L ADP CAS 20398-34-9 (2181)
Adenosine-5'-diphosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	0.10M	M		K1=4.22	2003BSa (72991)	1395

$$K(\text{MnL}+\text{H})=4.56$$

$$K(\text{Mn}+\text{HL})=2.38$$

Mn++	gl	KNO3	25°C	0.10M	C	M	K1=4.16	2001A0a (72992)	1396
							K(MnL+A)=2.08		
							B(MnLA)=6.24		
							K(MnL+B)=1.97		
							B(MnLB)=6.13		

K(MnL+C)=3.23, B(MnLC)=7.39, K(MnL+D)=3.87, B(MnLD)=8.03.
HA=PIPES, HB=MOPS, HC=POPSO, HD=HEPPSO.

Mn++	gl	KNO3	25°C	0.10M	C	M	K1=4.16	2000ADa (72993)	1397
							K(MnL+A)=7.40		
							B(MnLA)=11.56		
							K(MnL+B)=3.75		
							B(MnLB)=7.91		

HA=ACES, HB=MOPSO. Also data for CHES, TAPSO and DIPSO.

Mn++	gl	NaNO3	25°C	0.10M	C	M	K1=4.00	2000KHa (72994)	1398
							K(MnL+A)=4.10		
							B(MnLA)=8.10		

H2A=salicylhydroxamic acid.

Mn++	gl	R4N.X	25°C	0.10M	C	TIH R	K1=4.29	1991SMa (72995)	1399
							K(Mn+HL)=1.89		

IUPAC evaluation. 37 C, 0.15 NaCl: K1=4.08. DH(K1)=13.4 kJ mol⁻¹

Mn++	gl	KNO3	22°C	0.25M	U		K1=4.55	1984GKa (72996)	1400
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Mn++	gl	KCl	25°C	0.10M	U	M		1983MDd (72997)	1401
							B(MnL(Gly))=6.43		

Mn++	gl	KCl	25°C	0.10M	U		K1=3.80	1980DMA (72998)	1402
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B(MnHL)=8.88

Mn++ oth oth/un RT dil C K1=3.28 1980KRb (72999)1403
Method: effect of [Mn++] on ATP exchange activity. Medium: not stated.

Mn++ nmr non-aq 25°C 100% U H K2=2.64 1978ZLa (73000)1404
Medium: toluene. DH(K2)=-6.3 kJ mol⁻¹

Mn++ gl R4N.X 25°C 0.20M M T H K1=4.31 1977RSa (73001)1405
Medium: 0.20 M Me4NBr, pH 7.5. Data for 1-45 C. DH(K1)=15 kJ mol⁻¹,
DS(K1)=132 J K⁻¹ mol⁻¹.

Mn++ gl KNO3 40°C 0.10M U T H K1=4.06 1967TMf (73002)1406
K(Mn+HL)=1.81
K1=4.47(0.4 C),4.24(12 C),4.16(25 C); K=2.00(0.4 C),1.95(12 C),1.89(25 C).
At 25 C:DH(K1)=-10.0 kJ mol⁻¹,DS=46 J K⁻¹ mol⁻¹, DH(Mn+HL)=-7.9,DS=8

Mn++ sp oth/un 30°C 0.10M U K1=4.40 1964OPa (73003)1407
Medium: 0.1 M buffer N-ethylmorpholine+HCl

Mn++ gl KNO3 25°C 0.10M U K1=4.16 1962TMa (73004)1408
K(Mn+HL)=1.89

Mn++ ix NaCl 23°C 0.10M U K1=3.94 1958WAa (73005)1409

Mn++ gl R4N.X 25°C 0.20M U K1=3.54 1956SAa (73006)1410
K(Mn+HL)=1.50

Medium: 0.2 M n-Pr4NCl

C10H16N2O3S HL Vitamin H CAS 58-85-5 (410)
D-Biotin (Coenzyme R);

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

Mn++ gl diox/w 25°C 50% U K1=2.07 1969SMc (73050)1411
Medium: 50% dioxan, 0.1 M NaClO4

C10H16N2O4S HL CAS 3376-83-8 (4793)
D-Biotin-DL-sulfoxide;

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

Mn++ gl diox/w 25°C 50% U K1=1.98 1969SMc (73055)1412
Medium: 50% dioxan, 0.1 M NaClO4. Value for d-isomer. For l-isomer, K1=1.97

C10H16N2O5S HL (4794)
D-Biotin sulfone;

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

Mn++ gl diox/w 25°C 50% U K1=2.06 1969SMc (73062)1413
Medium: 50% dioxan, 0.1 M NaClO4

C10H16N2O6 H2L CAS 23873-27-0 (9120)

N,N'-Bis-(3-carboxy-1-oxopropanyl)-1,2-diaminoethane;

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

Mn++ gl NaClO4 25°C 0.10M M K1=5.10 B2= 8.92 2003GSa (73069)1414

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

Mn++ gl NaCl 25°C 0.10M C K1=8.97 20020Ha (73156)1415

K(MnL+H)=4.7

K(MnHL+HL)=4.0

Ligand is [S,S] isomer.

Mn++ gl KNO3 25°C 0.10M U K1=8.63 1993VZa (73157)1416

K[Mn+HL]=3.47

Mn++ vlt KNO3 25°C 0.10M U K1=8.45 1974SGa (73158)1417

Mn++ gl KNO3 30°C 0.10M U K1=5.11 1971TSc (73159)1418

Mn++ gl KNO3 20°C 0.10M U K1=8.95 1968MJa (73160)1419

By paper electrophoresis: K1=11.7

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

Mn++ cal oth/un 25°C 0.5M U M 2003PKa (73946)1420

K(MnL+NH3)=0.30

Medium: NH4NO3. DH=-8.14 kJ mol-1

Mn++ gl NaCl 37°C 0.15M C K1=12.42 1984DMb (73947)1421

Mn++ vlt KNO3 20°C 0.10M U K1=14.20 1978NLb (73948)1422

Mn++ dis none 25°C 0.0 U K1=13.8 1977MFb (73949)1423

Measured by liquid chromatography on a chelating resin

Mn++ oth NaClO4 25°C 1.0M U 1973HHb (73950)1424

K(CoLCl+Mn)=0.83

Mn++ gl KNO3 25°C 0.10M U K1=14.05 1969BNa (73951)1425

K(MnL+H)=3.07

K(Mn+HL)=5.47

Mn++ oth KNO3 20°C 0.10M U K1=14.5 1965JMb (73952)1426
Method: electrophoresis

Mn++ vlt KNO3 25°C 0.20M U K1=13.64 19650Ga (73953)1427

Mn++ gl KNO3 20°C 0.10M U K1=14.04 1964ANa (73954)1428
K(Mn+HL)=6.9

Mn++ cal KNO3 20°C 0.10M U H 1963ANf (73955)1429
DH(K1)=-19.1 kJ mol⁻¹, DS=201 J K⁻¹ mol⁻¹

Mn++ dis NaClO4 20°C 0.10M U K1=12.88 1963STc (73956)1430

Mn++ EMF NaNO3 22°C 0.10M U T K1=13.98 1957SAb (73957)1431

Mn++ EMF oth/un 25°C 0.0 U H 1956MAa (73958)1432
Method: H electrode. DS(K1)=172 J K⁻¹ mol⁻¹

Mn++ EMF NaClO4 25°C 0.10M U K1=13.8 1956SRb (73959)1433

Mn++ cal oth/un 25°C 0.05M U H 1954CHa (73960)1434
Medium: Mn(NO3)2. DH(K1)=-21.7 kJ mol⁻¹, DS=171 J K⁻¹ mol⁻¹

Mn++ vlt KNO3 20°C 0.10M U K1=14.04 1954SGa (73961)1435
K(Mn+HL)=6.9
K(MnL+H)=0.47

Mn++ EMF KCl 20°C 0.10M U T K1=13.58 1951SFa (73962)1436
Method: H electrode

C10H16N2O11P2 H4L CAS 491-97-4 (7674)
Thymidine-5'-diphosphoric acid;

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

Mn++ gl NaNO3 25°C 0.10M M K1=4.18 1999SSa (74389)1437
K(Mn+HL)=4.18

C10H16N5O13P3 H4L ATP CAS 56-65-5 (403)
Adenosine-5'-triphosphoric acid;

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

Mn++ gl KNO3 25°C 0.10M C M K1=4.70 2001A0a (74762)1438
K(MnL+A)=2.23
B(MnLA)=6.93
K(MnL+B)=3.05

B(MnLB)=7.75

K(MnL+C)=3.40, B(MnLC)=8.10.

HA=PIPES, HB=POPSO and HC=HEPPSO.

Mn++	gl	KNO3	25°C	0.10M	C	M	K1=4.70	2000ADa (74763)1439
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K(MnL+A)=3.47

B(MnLA)=8.17

K(MnL+B)=3.75

B(MnLB)=8.45

K(MnL+C)=3.39, B(MnLC)=8.09. HA=ACES, HB=MOPSO, HC=CHES.

Also data for TAPSO and DIPSO.

Mn++	gl	NaNO3	25°C	0.10M	C	M	K1=4.80	2000KHa (74764)1440
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K(MnL+A)=4.89

B(MnLA)=9.69

H2A=salicylhydroxamic acid.

Mn++	gl	R4N.X	25°C	0.10M	C	TIH	R	K1=5.11	B2=7.76	1991SMa (74765)1441
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IUPAC evaluation. DH(K1)=18.0 kJ mol⁻¹. 27 C, I=0.15 M: K1=4.79

Mn++	gl	NaNO3	25°C	0.10M	C		K1=5.01	1987STb (74766)1442
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K(Mn+HL)=2.74

K(MnL+H)=4.20

Mn++	gl	NaClO4	25°C	0.10M	U	M	K1=5.32	1986CCc (74767)1443
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B(MnHL)=9.83

B(MnH2L)=13.49

B(MnH2L2)=18.81

B(Mn2L)=7.43

Ternary complexes with 2,2'-dipyridylamine

Mn++	ix	oth/un	25°C	0.06M	C			1985JEa (74768)1444
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K1eff=4.12

Medium: 0.06 M N-tris(hydroxymethyl)methyl-2-aminoethane sulfonic acid buffer, pH 7.45. In 0.06 M imidazole/HCl buffer, pH 7.45, K1eff=4.15

Mn++	nmr	mixed	25°C	40%	U	HM	K1=4.72	B2=5.62	1985LEc (74769)1445
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K3=2.04

K(MnL+Gly)=-0.51

DH(K1)=-30.96, DH(K2)=12.55, DH(K3)=-12.55, DH(MnL+A)=2.51 kJ mol⁻¹

Medium: water:glycerol 3:2 (v/v)

Mn++	gl	KCl	25°C	0.10M	U	M	K1=4.85	1984DMc (74770)1446
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Mn++	gl	KNO3	22°C	0.25M	U		K1=4.55	1984GKa (74771)1447
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Mn++	gl	NaCl	25°C	0.15M	U	M	K1=4.72	1983JKa (74772)1448
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B(MnHL)=9.19

B(MnH2L)=12.73

B(MnL(NTA))=9.12

B(MnHL(NTA))=15.57

Mn++	gl	KCl	25°C	0.10M	U	M		1983MDd (74773)1449
								B(MnL(Gly))=7.67
Mn++	gl	KCl	25°C	0.10M	U		K1=4.85	1980DMa (74774)1450
								B(MnHL)=9.65
Mn++	oth	oth/un	RT	dil	C		K1=4.23	1980KRb (74775)1451
								Method: effect of [Mn++] on ATP exchange activity. Medium: not stated.
Mn++	gl	KNO3	35°C	0.10M	C	M	K1=5.25	1979MTb (74776)1452
								K(Mn+HL)=3.11
Mn++	gl	R4N.X	25°C	0.20M	U	H	K1=5.7	1978GFb (74777)1453
								Medium: Me4NBr. DH(K1)=8.7 kJ mol ⁻¹
Mn++	gl	NaClO4	25°C	0.10M	C		K1=4.91	1978MSd (74778)1454
								B(Mn(phen)L)=9.04
								K(Mn(phen)+L)=5.03
								K(MnL+phen)=4.13
Mn++	gl	NaCl	25°C	0.12M	U	M	K1=4.56	1978RMc (74779)1455
								K(MnL+DOPA)=4.14
								H3DOPA=3,4-dihydroxyphenylalanine
Mn++	gl	R4N.X	25°C	0.20M	M	T	K1=5.71	1977RSa (74780)1456
								Medium: 0.20 M Me4NBr, pH 7.5. Data for 1-43 C. DH(K1)=38 kJ mol ⁻¹ , DS(K1)=236 J K ⁻¹ mol ⁻¹ .
Mn++	gl	R4N.X	20°C	0.10M	M		K1=5.12	1976PSe (74781)1457
								K(Mn+HL)=3.14
								Medium: 0.1 M Me4NClO4
Mn++	gl	NaClO4	25°C	0.10M	U	M		1976SNa (74782)1458
								K(MnL+Ala)=1.36
								K(Mn(Ala)+L)=3.47
Mn++	nmr	NaClO4	25°C	0.10M	U			1975SIb (74783)1459
								K(Mn(OH)L+H)=10.7
Mn++	ix	KCl	25°C	0.10M	U			1971YBa (74784)1460
								K1eff=4.51
								pH=8.5
Mn++	gl	R4N.X	30°C	0.10M	U	T	K1=5.19	1966PSa (74785)1461
								K(Mn+HL)=2.62
								Medium: Me4NBr
Mn++	gl	KNO3	40°C	0.10M	U	T	K1=4.63	1966TMb (74786)1462

$K(\text{Mn+HL})=2.30$

$K_1=4.97(0.4 \text{ C}), 4.82(12 \text{ C}), 4.78(25 \text{ C})$; $K=2.55(0.4 \text{ C}), 2.48(12 \text{ C}), 2.39(25 \text{ C})$.
 At 25 C: $\text{DH}(K_1)=12.5 \text{ kJ mol}^{-1}$, $\text{DS}=50 \text{ J K}^{-1} \text{ mol}^{-1}$; $\text{DH}(\text{Mn+HL})=-9.6$, $\text{DS}=13$

Mn++ sp oth/un 25°C 0.0 U H $K_1=5.70$ 1963GPb (74787)1463
 $\text{DH}(K_1)=20.1 \text{ kJ mol}^{-1}$, $\text{DS}=176 \text{ J K}^{-1} \text{ mol}^{-1}$

Mn++ gl KCl 20°C 0.10M U $K_1=4.52$ B2=5.89 1962HBa (74788)1464
 $K(\text{Mn+HL})=2.61$
 $K(\text{Mn+H}_2\text{L})=2.03$

Mn++ gl KNO3 25°C 0.10M U $K_1=4.78$ 1962TMb (74789)1465
 $K(\text{Mn+HL})=2.39$

Mn++ gl KCl 22°C 0.10M U $K_1=4.78$ 1961BRb (74790)1466
 $K(\text{Mn}(\text{OH})\text{L}+\text{H})=10.4$

Mn++ sp R4N.X 25°C 0.10M U TI $K_1=4.58$ 1959BUa (74791)1467
 Medium: 0.1 M Bu3EtNBr. $K_1=4.99(64\text{C})$. AT I=0.22 M $K_1=4.35$

Mn++ ix NaCl 23°C 0.10M U $K_1=4.75$ 1958WAa (74792)1468

Mn++ gl R4N.X 25°C 0.20M U $K_1=3.98$ 1956SAa (74793)1469
 $K(\text{Mn+HL})=1.57$

C10H16N5O14P3 H5L GTP CAS 86-01-1 (404)
 Guanosine-5'-triphosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++ gl NaNO3 25°C 0.10M C $K(\text{Mn+HL})=5.36$ 2001SBc (74882)1470
 $K(\text{MnHL}+\text{H})=4.50$
 $K(\text{Mn+H}_2\text{L})=3.36$

Mn++ gl R4N.X 25°C 0.10M C TI R $K(\text{Mn+HL})=5.05$ 1991SMa (74883)1471

IUPAC evaluation

Mn++ gl NaClO4 25°C 0.10M C $K(\text{Mn+HL})=4.64$ 1977SIc (74884)1472

Mn++ nmr NaClO4 25°C 0.10M U $K(\text{MnL}+\text{H})=9.36$ 1975SIb (74885)1473
 $K(\text{Mn}(\text{OH})\text{L}+\text{H})=11.3$

By spectrophotometry, $K(\text{MnL}+\text{H})=9.3$.

Mn++ gl KNO3 25°C 0.10M U T $K(\text{Mn+HL})=5.18$ 1973TRb (74886)1474

$K(35 \text{ C})=5.29$, $K(45 \text{ C})=5.09$

Mn++ ix NaCl 23°C 0.10M U 1958WAa (74887)1475
K(Mn+HL)=4.73

C10H16O8P2 H4L (6907)
1,2-Diphosphinoethane-P,P,P'-tetraethanoic acid;
(HOOC.CH2)2P.CH2.CH2.P(CH2.COOH)2

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

Mn++ gl NaCl04 25°C 0.10M C K1=2.92 1992PPb (74952)1476
B(MnHL)=8.47
B(MnH2L)=12.46

Mn++ gl NaCl04 25°C 0.10M C K1=2.92 1982PPc (74953)1477
B(MnHL)=8.47
B(MnH2L)=12.46

C10H17NO5 H2L (3917)
N-(Tetrahydropyran-2-ylmethyl)iminodiethanoic acid;

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

Mn++ gl KNO3 20°C 0.10M U K1=5.89 B2=10.24 1963IFa (75003)1478

C10H17NO8S HL (1735)
2-(5-Carboxy-1,2,3,4-tetrahydroxypentyl)4-carboxythiazolidine,
Galactocarboxythiazolidine;

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

Mn++ gl NaCl04 25°C 0.10M C K1=2.27 1992GNa (75013)1479
B(MnH-1L2)=0.77
B(Mn2H-2L2)=-10.43
B(Mn2H-3L2)=-19.31
B(Mn2H-4L2)=-30.19

C10H17N2O14P3 H3L TTP CAS 365-08-2 (402)
Thymidine-5'-triphosphoric acid;

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

Mn++ gl NaCl 25°C 0.10M C T 1991SMa (75053)1480
K(Mn+HL)=5.1

IUPAC evaluation

Mn++ gl NaNO3 25°C 0.10M C 1987STb (75054)1481
K(Mn+HL)=5.01

Mn++ nmr NaCl04 25°C 0.10M U 1975SIb (75055)1482

K(MnL+H)=9.67
K(Mn(OH)L+H)=11.2

By spectrophotometry, K(MnL+H)=9.6.

C10H17N3O6S H3L Glutathione CAS 70-18-8 (333)
Glutamyl-cysteinyl-glycine;

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

Mn++ gl NaClO4 25°C 0.10M U TIH K1=6.690 2001SGd (75131)1483
Data for 0.05-0.2 M NaClO4 and 15-45 C. DH(K1)=-33.8 kJ mol⁻¹, DS(K1)=-21
J K⁻¹ mol⁻¹. At I=0, K1=7.00. Also data for MeOH/H2O, EtOH/H2O, DMF/H2O.

Mn++ gl KNO3 30°C 0.10M U T M 1995SSc (75132)1484

K(MnA+L)=5.60
K(MnB+L)=5.75
K(MnC+L)=5.40
K(MnD+L)=6.79

Also data for 40 and 50 C. HA is anthranilic acid, H2B is ascorbic acid,
HC is nicotinic acid, HD is sulfanilic acid.

Mn++ gl KNO3 25°C 0.16M U K1=2.7 1959MEa (75133)1485

C10H17N6O12P3 H4L CAS 4209-30-7 (4795)
Adenyl-5'-yl-imidodiphosphoric acid; adenosine-0.P0(OH).0.P0(OH).NH.P0(OH)2

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

Mn++ gl R4N.X 20°C 0.10M M T H K1=5.44 1976PSe (75171)1486
K(Mn+HL)=3.10

Medium: 0.1 M Me4NClO4. At 0 C: K1=5.63, K(Mn+HL)=3.14. DH(K1)=-14 kJ mol⁻¹,
DS=17 J K⁻¹ mol⁻¹; DH(Mn+HL)=-3, DS=14

Mn++ ix KCl 25°C 0.10M U 1971YBa (75172)1487

K1eff=4.93

pH=8.5

C10H18N2O3 HL CAS 533-48-2 (411)
D/L-Desthiobiotin, 5-Methyl-2-oxo-4-imidazoline-caproic acid;

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

Mn++ gl diox/w 25°C 50% U K1=1.96 1969SMc (75180)1488

Medium: 50% dioxan, 0.1 M NaClO4

C10H18N2O4S H2L (6638)

1-Thia-4,7-diazacyclononane-N,N'-diethanoic acid;

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

Mn++ gl KNO3 25°C 0.10M C K1=9.25 1993WLa (75217)1489

C10H18N2O5 H2L (5608)
1-Oxa-4,7-diazacyclononane-N,N'-diethanoic acid;

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

Mn++ gl KNO3 25°C 0.10M U K1=7.73 1990CCa (75236)1490

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

Mn++ gl KNO3 25°C 0.10M U K1=10.75 1969BNa (75445)1491
2nd method: calorimetry

Mn++ cal KNO3 25°C 0.10M U H 1965WHa (75446)1492
DH(K1)=-21.7 kJ mol⁻¹, DS=134 J K⁻¹ mol⁻¹

Mn++ gl KCl 30°C 0.10M U K1=10.7 1955CMA (75447)1493

C10H18O8 H2L CAS 32775-08-9 (240)
1,12-Dicarboxy-2,5,8,11-tetraoxadodecane; (HOOC.CH2.O.CH2.CH2.O.CH2)2

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

Mn++ gl KNO3 25°C 0.10M U K1=2.18 1975MTc (75620)1494

C10H19NO4 H2L (3328)
N-(3,3-Dimethylbutyl)iminodiethanoic acid; (CH3)3C.CH2.CH2.N(CH2.COOH)2

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

Mn++ gl KCl 20°C 0.10M U K1=5.55 B2=10.00 1955SAa (75640)1495

C10H19N3O4 H2L (8095)
1,4,7-Triazacyclononane-1,4-diethanoic acid;

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

Mn++ gl KCl 25°C 1.0M U K1=11.56 2000LKc (75657)1496

C10H20N2O3 HL (8624)
N-Hydroxy-4-amino-4-carboxy-2,2,6,6-tetramethylpiperidine;

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

Mn++ gl NaNO3 25°C U K1=1.85 1976TCb (75753)1497
Ionic strength not stated.

 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
Mn++	con	mixed	25°C	90%	C		K1=2.11	2003ISa (76052)	1498

Medium: 90% v/v DMSO/H2O.

Mn++	con	alc/w	25°C	40%	C		K1=1.71	2002ISa (76053)	1499
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Medium: 40% EtOH/H2O.

Mn++	con	alc/w	25°C	40%	C		K1=1.97	2001ISa (76054)	1500
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Medium: 40% v/v EtOH/H2O.

 C10H22N2O3 L Cryptand 2,1 CAS 31249-95-3 (835)
 4,7,13-Trioxa-1,10-diazacyclopentadecane (Trioxa(2,1)cryptand);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	R4N.X	25°C	0.05M	U		K1=4.0	1999BDb (76326)	1501

Medium: Et4NClO4

 C10H23N3O2 L CAS 60350-18-7 (5875)
 1,4-Dioxa-7,10,13-triazacyclopentadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	C		K1=6.63	1994CDa (76524)	1502

 C10H24N4O L (7051)
 1-Oxa-4,7,10,13-tetraazacyclopentadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	C		K1=8.53	1994CDa (76710)	1503

 C10H25N5 L 15-Ane-N5 CAS 295-64-7 (99)
 1,4,7,10,13-Pentaazacyclopentadecane; cyclo(-(HN.CH2.CH2)5-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaClO4	25°C	0.10M	M		K1=10.85	1996RHa (76735)	1504

Also data for the 2-Methyl-; 2,3-Dimethyl-; 2,5-Dimethyl-; 2,8-Dimethyl-; 2,5,8-Trimethyl-; 2,2,3,3-Tetramethyl-; and other derivatives.

Mn++	gl	oth/un	25°C	0.20M	U		K1=10.65	1988NJa (76736)	1505
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Medium: KBr

 C10H26N2O12P4 H8L CAS 28698-30-8 (3342)

N,N,N',N'-Tetra(phosphomethyl)cyclohexane-1,2-diamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	oth/un	25°C	0.10M	U		K1=8.49	1959BYa (76760)	1506

C10H26N4O6P2		H4L		CAS		200951-96-8		(7643)	
1,4,7,10-Tetraazacyclododecane-1,7-bis(methanephosphonic acid);									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.10M	C		K1=18.1 *K(MnL)=-6.4 K(MnL+H)=5.7	1998BRa (76807)	1507

C10H28N2O12P4		H8L		CAS		23605-74-5		(435)	
(Hexamethylenedinitrilo)tetra(methylenephosphonic acid);									
(CH2.CH2.CH2.N(CH2.PO3H2)2)2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	U		K1=6.69 K(MnL+H)=9.66 K(MnHL+H)=7.52 K(MnH2L+H)=6.12 K(MnH3L+H)=5.43	1980ZRb (76840)	1508

C10H28N6		L		PENTEN		CAS		4097-90-9 (3315)	
N,N,N',N'-Tetra-(2-aminoethyl)diaminoethane;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	1.0M	C		K1=9.33 B(MnHL)=17.05	2001GLb (76876)	1509

Mn++	cal	KNO3	25°C	0.10M	U	H	K1=9.24	1971PWa (76877)	1510
DH(K1)=-36.99 kJ mol ⁻¹ , DS=52.25 J K ⁻¹ mol ⁻¹									

Mn++	cal	KCl	25°C	0.10M	U	H	K1=9.30	1964SPb (76878)	1511
K calculated. By calorimetry: DH(K1)=-37.0 kJ mol ⁻¹ , DS=52.2 J K ⁻¹ mol ⁻¹									

Mn++	gl	KCl	20°C	0.10M	U		K1=9.37	1953SMa (76879)	1512

C11H8N2O		L		Dipyridylketone		CAS		19437-26-4 (1151)	
2,2'-Carbonyldipyridine; C5H4N.CO.C5H4N									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaClO4	25°C	0.10M	U		K1=1.03 K(MnH-1L+H)=7.8	1975FSb (76918)	1513

C11H8N6O HL (7009)
1-(5-Tetrazolyl)azo-2-naphthol;

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

Mn++ sp NaClO4 20°C 0.10M U K1=5.96 1978SSf (76927)1514

C11H8O3 HL Plumbagin CAS 81402-06-4 (882)
6-Hydroxy-2-methyl-1,4-naphthoquinone;

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

Mn++ gl alc/w 30°C 50% U K1=5.00 B2=9.25 1981RRc (77147)1515

C11H8O3S HL CAS 32267-05-3 (3353)
2-Furoyl-2-thenoylmethane; C4H3O.CO.CH2.CO.C4H3S

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

Mn++ gl diox/w 30°C 75% U K1=8.81 B2=16.60 1953UFe (77159)1516

C11H8O4 HL CAS 6724-42-1 (6183)
8-Formyl-7-hydroxy-4-methyl-2H-1-benzopyran-2-one; CH0.C9H3O(:O)(CH3)(OH)

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

Mn++ gl alc/w 35°C 70% U K1=3.73 B2=6.73 1984CEa (77204)1517

C11H9NO2 HL CAS 92609-55-3 (4827)
5-Acetyl-8-hydroxyquinoline;

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

Mn++ gl diox/w 25°C 60% U K1=6.78 B2=13.08 1973SCd (77331)1518

Medium: 60% dioxan, 0.1 M NaClO4

C11H9NO2S HL CAS 29556-13-6 (1450)
N-Phenyl-2-thenoylhydroxamic acid; C4H3SCON(C6H5)OH

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

Mn++ gl diox/w 25°C 50% U M K1=5.17 B2=9.53 1984ABb (77349)1519

B(MnL(bpy))=11.02

B(MnL(phen))=12.37

Mn++ gl NaClO4 25°C 0.10M U K1=5.13 B2=9.29 1975BLa (77350)1520

C11H9NO3 H2L CAS 80690-05-7 (872)
3-Hydroxy-2-methyl-1,4-naphthoquinone monoxime;

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  diox/w 30°C 0.10M U      K1=3.70      1981KSa (77364)1521
*****
C11H9NO3      H2L      CAS 35975-56-5 (16)
Methyl-8-hydroxyquinoline-2-carboxylic acid;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      sp  NaClO4 25°C 0.10M U      K1=4.70      1977HCa (77371)1522
*****
C11H9NO3      HL      CAS 1137-48-0 (1449)
N-Phenyl-2-furylhydroxamic acid; C4H3O.CO.N(C6H5).OH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  diox/w 25°C 50% U      M      K1=5.02      B2=9.36      1984ABb (77392)1523
                        B(MnL(bpy))=10.86
                        B(MnL(phen))=12.22
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Mn++      gl  NaClO4 25°C 0.10M U      K1=4.84      B2=8.86      1975BLa (77393)1524
*****
C11H9NO3S2      HL      (939)
2-(Thiophene-2'-aldimino)benzene sulfonic acid; C4H3S.CH:N.C6H4.SO3H
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  NaClO4 25°C 0.10M U      K1=4.15      B2=7.02      1982MSa (77401)1525
*****
C11H9NO4      HL      CAS 65490-35-9 (6230)
8-Formyl-7-hydroxy-4-methyl-2H-[1]benzopyran-2-one-oxime; (CH3)(OH)C9H3O(:O)CH:NOH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  alc/w 35°C 70% U      K1=3.99      B2=6.95      1984CEa (77438)1526
*****
C11H9N3O      HL      CAS 10335-29-2 (3937)
2-(2'-Pyridylazo)phenol; C5H4N.N:N.C6H4.OH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      sp  alc/w 24°C 5% U      B2=10.52      1973BJb (77458)1527
                        K(MnL2+OH)=7.57
Medium: 5% EtOH, 0.1 M NaClO4
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Mn++      gl  alc/w 25°C 50% U      K1=5.6      B2=12.60      1967ANa (77459)1528
Medium: 50% MeOH, 0.1 M NaClO4
*****
C11H9N3O2      H2L      PAR      CAS 1141-59-9 (636)
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4-(2'-Pyridylazo)-1,3-dihydroxybenzene; C5H4N.N:N.C6H3(OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	sp	NaNO3	25°C	0.10M	U			K1=8.48 K(Mn+HL)=2.40	19860Ha (77560)	1529
Mn++	sp	oth/un	?	0.10M	U			B2=15.6	1973NEb (77561)	1530
Mn++	gl	diox/w	25°C	50%	U			K(Mn+HL)=9.79 K(MnHL+HL)=9.13	1966SCd (77562)	1531
Mn++	gl	diox/w	25°C	50%	U			K(Mn+HL)=9.7 *K(MnHL+HL)=9.2 K(MnL+H)=8.8 K(MnOHL+H)=10.3	1962CYa (77563)	1532

C11H9N3O4 H2L CAS 82628-26-0 (1379)
1-(2-Tolyl)violuric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	alc/w	18°C	50%	U T			K1=5.08 B2=9.20	1982SGa (77622)	1533
Medium: 50% v/v EtOH/H2O, 0.1 M NaClO4										

C11H9N3O4 H2L CAS 82628-27-1 (1378)
1-(3-Tolyl)violuric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	alc/w	18°C	50%	U T			K1=5.13 B2=9.51	1982SGa (77629)	1534
Medium: 50% v/v EtOH/H2O, 0.1 M NaClO4										

C11H9N3O4 H2L CAS 82628-25-9 (1377)
1-(4-Tolyl)violuric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	alc/w	18°C	50%	U T			K1=5.42 B2=10.05	1982SGa (77636)	1535
Medium: 50% v/v EtOH/H2O, 0.1 M NaClO4										

C11H9N3O5S HL (6249)
1,2-Naphthoquinone-4-sulfonic acid 2-semicarbazone; C10H5(:O)(HSO3):N.NH.CO.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	NaClO4	28°C	0.10M	U T H			K1=4.05 B2=7.33	1980MGd (77642)	1536

C11H10N2O L (7591)
4'-(Imidazol-1-yl)acetophenone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	0.50M	M		K1=1.02	1998KSa (77669)	1537

C11H10N3OClS HL (1294)
2-(4',5'-Dimethyl-2'-thiazolylazo)-4-chlorophenol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	60%	U		K1=4.33 B2=8.54	1981KTa (77690)	1538

C11H10N4 L PAPHY CAS 2215-33-0 (1305)
Pyridine-2-aldehyde-2'-pyridyl-hydrazone; C5H4N.CH:N.NH.C5H4N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	EMF	KNO3	20°C	0.10M	U		K1=3.68 B2=5.68	1971ANa (77708)	1539
Mn++	gl	oth/un	25°C	0.0	U			1964GHd (77709)	1540

K(Mn+HL)=3.3
K(Mn+2HL)=6.9

C11H10N4O2S L (6353)
1-Cyanoacetyl-4-benzoylthiosemicarbazide; C6H5.CS.NH.NH.CO.NH.CO.CH2.CN

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	25°C	70%	C		K1=7.08 B2=10.76	1982SDa (77722)	1541

In 70% ethanol/H2O; Electrolyte: 0.1 M KCl

C11H11NO4 HL CAS 32345-47-4 (6227)
4-Methoxymaleanilic acid; HOOC.CH:CH.CO.NH.C6H4.OCH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	22°C	80%	U T H		K1=7.35 B2=12.85	1985SAb (77787)	1542

30 C: K1= 7.25, K2=5.45; 40 C: K1= 7.15, K2=5.40
DH(K1)=-23.0 kJ mol⁻¹, DS=61 J K⁻¹ mol⁻¹; DH(K2)= -9.6, DS=74

C11H11NO6 H3L CAS 1147-65-5 (425)
N-(2'-Carboxyphenyl)iminodiethanoic acid; HOOC.C6H4.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	U		K1=5.85 K(Mn+HL) < 1	1967UKa (77831)	1543

Mn++ sp NaNO3 20°C 0.10M U 1961DSa (77832)1544

K(?)=5.37

C11H11N2O2Br HL (9228)

3-[4-Bromophenylazo]penta-2,4-dione;

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

Mn++ gl alc/w 25°C 0.1M U K1=7.52 2004Gmc (77876)1545

Medium: 0.1 mol/L KCl in 3:7 EtOH/H2O mixture

Mn++ gl alc/w 25°C 0.1M U K1=6.92 2004Gmc (77877)1546

Medium: 0.1 mol/L KCl in 3:7 EtOH/H2O mixture

C11H11N2O2Cl HL (9229)

3-[4-Chlorophenylazo]penta-2,4-dione;

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

Mn++ gl alc/w 25°C 0.1M U K1=6.87 2004Gmc (77889)1547

Medium: 0.1 mol/L KCl in 3:7 EtOH/H2O mixture

C11H11N2O2I HL (9227)

3-[4-Iodophenylazo]penta-2,4-dione;

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

Mn++ gl alc/w 25°C 0.1M U K1=7.51 2004Gmc (77900)1548

Medium: 0.1 mol/L KCl in 3:7 EtOH/H2O mixture

C11H11N3O3S L CAS 67665-24-1 (8341)

Furoin thiosemicarbazone;

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

Mn++ gl alc/w 30°C 50% U T H K1=8.04 B2=15.23 1991HRa (77950)1549

Medium: 50% v/v EtOH/H2O, 0.1 M NaClO4. Data for 40 and 50 C.

DH(K1)=-110 kJ mol⁻¹, DS(K1)=210 J K⁻¹ mol⁻¹; DH(K2)=-124, DS(K2)=274.

C11H11N3O4 HL (9230)

3-[4-Nitrophenylazo]penta-2,4-dione;

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

Mn++ gl alc/w 25°C 0.1M U K1=6.31 2004Gmc (77960)1550

Medium: 0.1 mol/L KCl in 3:7 EtOH/H2O mixture

C11H11O2F HL CAS 38440-21-0 (2906)

1-(4-Fluorophenyl)-1,3-pentanedione; F.C6H4.CO.CH2.CO.CH2.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	20°C	75%	M T		K1=9.96 B2=17.33	1980GMd (77967)	1551

C11H12NOCl L CAS 50519-24-9 (3367)									
4-(4-Chlorophenylimino)pentan-2-one; CH3.CO.CH2.C(:N.C6H4.Cl).CH3									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	25°C	70%	U		K1=6.15	1992CGd (77981)	1552
Medium: 70% EtOH/H2O. For 4-fluoro K1=4.77; 4-bromo 6.20; 4-iodo 6.50									

C11H12N2O L Antipyrine CAS 60-80-0 (2026)									
2,3-Dimethyl-1-phenyl-3-pyrazolin-5-one, Phenazone;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KN03	25°C	0.50M	U		K1=0.57 B2=0.89 B3=1.02	1980LWa (78004)	1553

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
Mn++	gl	KN03	25°C	0.10M	U	M	K1=2.53 B2=4.98	1988MBa (78217)	1554
Mn++	gl	NaCl	20°C	0.15M	M		K1=2.59	1985VDa (78218)	1555
Mn++	gl	NaCl	20°C	0.15M	U	M	K1=2.59	1983VDb (78219)	1556
Mn++	gl	NaCl04	25°C	0.10M	C	M	K1=2.50 K(MnL+ATP)=3.82 K(Mn(ATP)+L)=1.54	1976SNa (78220)	1557

Mn++	EMF	KN03	20°C	0.10M	U T		K1=2.88	1973BSf (78221)	1558
K1(30 C)=2.86, K1(40 C)=2.82, K1(50 C)=2.79, K1(60 C)=2.75									

Mn++	gl	NaCl04	25°C	3.0M	U		K1=2.84 B2=5.15 B3=8.0	1970WIa (78222)	1559
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Mn++	gl	oth/un	20°C	0.01M	U		K2=5	1950ALa (78223)	1560

C11H12N2O2 HL (9226)									
3-[Diphenylazo]penta-2,4-dione;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	25°C	0.1M	U		K1=7.56	2004GMc (78251)	1561
Medium: 0.1 mol/L KCl in 3:7 EtOH/H2O mixture									

C11H12N2O3 H2L CAS 121565-72-8 (8344)
2-[[2-(Hydroxyimino)-1-methylpropylidene]amino]benzoic acid;

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

Mn++ gl alc/w 30°C 50% C T H K1=7.76 1993HCb (78272)1562
Medium: 50% v/v EtOH/H2O, 0.10 M NaClO4. For meta-COOH, K1=9.56;
for para-COOH, K1=8.04. Data for 40 and 50 C and DH and DS values.

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

Mn++ gl KCl 25°C 0.10M U T K1=6.84 2005ACa (78324)1563
For 35 C K1=6.71; for 45 C K1=6.57

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

Mn++ gl diox/w 20°C 75% M T K1=10.24 B2=17.47 1980GMd (78374)1564

C11H13NO HL CAS 880-12-6 (3361)
4-(Phenylimino)pentan-2-one; CH3.CO.CH2.C(:N.C6H5).CH3

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

Mn++ gl alc/w 25°C 70% U K1=8.25 1992CGd (78440)1565
Medium: 70% EtOH/H2O

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

Mn++ gl diox/w 20°C 82% U K1=5.19 B2=8.84 1979KSb (78498)1566

C11H13NO4 H2L CAS 3987-53-9 (966)
N-Benzyliminodiethanoic acid; C6H5.CH2.N(CH2.COOH)2

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

Mn++ gl oth/un ? ? U K1=6.6 1975DTa (78587)1567

C11H13NO6 H4L CAS 1911-59-2 (4852)
2,3-Dihydroxybenzyliminodiethanoic acid; (HO)2.C6H3.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	EMF	oth/un	?	?	U			1975DTa (78665)	1568
							K(Mn+HL)=10.3		

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
Mn++	gl	oth/un	25°C	0.0	U			1970TTb (78680)	1569
							K(Mn+HL)=9.61		

C11H13NO6	H4L	CAS 31477-66-7	(4853)
2,6-Dihydroxybenzyliminodiethanoic acid; (HO)2.C6H3.CH2.N(CH2.COOH)2			

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	EMF	oth/un	?	?	U			1975DTa (78694)	1570
							K(Mn+HL)=7.4		

C11H13N3O	L	Ampyrone	CAS 83-07-8	(2027)
4-Amino-2,3-dimethyl-1-phenyl-3-pyrazolin-5-one, 4-Aminoantipyrine;				

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KN03	25°C	0.50M	U		K1=1.07 B2=1.83	1980LWa (78707)	1571

C11H13O4AsS	H2L	CAS 36198-36-4	(4870)
Bis(carboxymethyl)-2-(methylthiophenyl)arsine; (HOOC.CH2)2.As.C6H4.S.CH3			

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	oth/un	25°C	0.10M	U		K1=2.86	1971FPa (78745)	1572
							K(Mn+HL)=2.35		

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
Mn++	gl	NaNO3	20°C	0.10M	C		K1=6.60 B2=10.10	1981ANb (78888)	1573

C11H14N4O5	HL	CAS 56566-64-4	(2816)
Biacetylmonoxime-4-phenyl-3-thiosemicarbazone;			

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	30°C	50%	U T H		K1=6.49	1992HRa (78939)	1574
Medium: 50% v/v EtOH/H2O, 0.1 M NaClO4. Data for 40 and 50 C.									

DH(K1)=-50.5 kJ mol⁻¹, DS(K1)=43.2 J K⁻¹ mol⁻¹.

Mn++ sp none 25°C 0.0 U K1=10.18 1975CJb (78940)1575

C11H14N4O4 L Tubercidin CAS 69-33-0 (6412)
7-Deazaadenosine, Tubercidin;

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

Mn++ gl NaNO3 25°C 0.50M C K1=0.13 2002KSb (78959)1576

Mn++ gl NaNO3 25°C 0.50M M K1=0.23 1991JCa (78960)1577

C11H14O2 HL CAS 20907-24-8 (4816)
2-Hydroxy-3-methylbutyrophenone; (HO).C6H3(CH3).CO.CH2.CH2.CH3

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

Mn++ gl KNO3 40°C 0.10M U K1=5.52 1973SPc (78985)1578

C11H14O2 HL CAS 52780-68-4 (4817)
2-Hydroxy-4-methylbutyrophenone; (HO).C6H3(CH3).CO.CH2.CH2.CH3

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

Mn++ gl KNO3 40°C 0.10M U K1=4.82 1973SPc (78990)1579

C11H14O2 HL CAS 24323-47-5 (4818)
2-Hydroxy-5-methylbutyrophenone; (HO).C6H3(CH3).CO.CH2.CH2.CH3

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

Mn++ gl KNO3 40°C 0.10M U K1=5.17 1973SPc (78995)1580

C11H15N4O7P H2L CAS 16719-46-3 (6026)
Tubercidin-5'-monophosphoric acid, 7-Deazaadenosine-5-monophosphoric acid;

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

Mn++ gl NaNO3 25°C 0.10M C K1=2.11 1988SMb (79070)1581
K(Mn+HL)=1.0

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

Mn++ gl KNO3 20°C 0.10M U 1982GSg (79110)1582
K(Mn+HL)=11.34

Mn++ gl KNO3 20°C 0.10M U K1=11.34 1982GSh (79111)1583

C11H17N08S H3L CAS 91649-51-3 (8438)
 N,N,S-Tris(carboxymethyl)methionine;

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

Mn++ gl KCl 25°C 0.10M C K1=5.88 1984RFd (79176)1584
 K(Mn+HL)=5.83
 *K(MnHL)=-10.84

 C11H18N2O3S HL CAS 1784-22-1 (4874)
 d-Homobiotin

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

Mn++ gl diox/w 25°C 50% U K1=2.0 1969SMc (79207)1585
 Medium: 50% dioxan, 0.1 M NaClO4

 C11H18N2O8 H4L PDTA CAS 4408-81-5 (1655)
 1,2-Diaminopropane-N,N,N',N'-tetraethanoic acid;

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

Mn++ gl KNO3 20°C 0.10M U K1=10.06 1981NSc (79311)1586

Mn++ vlt KNO3 20°C 0.10M U K1=15.28 1978NLb (79312)1587

Mn++ dis none 25°C 0.0 U K1=13.0 1977MFb (79313)1588
 Measured by liquid chromatography on a chelating resin

Mn++ cal KNO3 25°C 0.20M C H 1975CGf (79314)1589
 DH(K1)=-22.0 kJ mol⁻¹.

Mn++ vlt KNO3 25°C 0.20M U K1=14.85 19650Ga (79315)1590

 C11H18N2O8 H4L CAS 4408-81-5 (923)
 1,3-Diaminopropane-N,N,N',N'-tetraethanoic acid; ((H00C.CH2)2N.CH2.)2.CH2

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

Mn++ vlt KNO3 25°C 0.20M U K1=<10.8 19650Ga (79457)1591

Mn++ cal KNO3 20°C 0.10M U H 1964ANa (79458)1592
 DH(K1)=-3.0(?) kJ mol⁻¹, DS=221(?) J K⁻¹ mol⁻¹

Mn++ gl KNO3 20°C 0.10M U K1=9.99 1964LAa (79459)1593
 K(Mn+HL)=4.82

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
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Mn ⁺⁺	EMF KCl	20°C 0.1M U	K1=8.90	1966PIa (79565)1594
Method: H electrode				

Mn++ gl KNO3 25°C 0.10M U K2=9.06 1966TKa (79566)1595
K(MnL+H)=5.1

Mn++ oth KN03 20°C 0.10M U K1=9 1965JMb (79567)1596
Method: electrophoresis

Mn++ vlt KCl 20°C 0.10M U K1=8.20 1964DSc (79568)1597

C11H18N4 L CAS 78668-34-5 (6708)
3,6,9,15-Tetraazabicyclo[9.3.1]pentadeca-1(15),11,13-triene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++ gl KNO3 25°C 0.10M C K1=8.81 1993CDa (79619)1598

C11H18N5O12P3 H4L CAS 5085-65-4 (4875)
Adenylylmethylenediphosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K	values	Reference	ExptNo
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Mn++ ix KCl 25°C 0.10M U K1eff=4.92 1971YBa (79641)1599

pH=9.2

C11H20N2O3	HL	Pro-Leu	CAS 52899-07-7	(258)
Prolyl-leucine; C4H8N.CO.NH.CH(CH2.CH(CH3)2).COOH				

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++ g1 KCl 20°C 0.20M U K1=2.47 1982KRc (79707)1600

Using EPR spectroscopy: $K_1=2.40$

C11H20N2O4S H2L (6639)
1-Thia-4,8-diazacyclodecane-N,N'-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++ g1 KNO3 25°C 0.10M C K1=8.97 1993WLa (79716)1601

C11H20N4O6 H2L ICRF 198 CAS 108430-47-3 (8369)
N,N'-(1-Methyl-1,2-ethanediyl)bis[N-(2-amino-2-oxoethyl)glycine];

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaCl	37°C	0.15M	C		K1=9.762 B2=11.60 B(MnHL)=10.980	1982HMB	(79730)1602

C11H25N3O2		L					(7052)		
1,4-Dioxa-7,11,14-triazacyclohexadecane;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	C		K1=6.49	1994CDa	(79940)1603

C11H30N6		L					CAS 65845-29-6	(4822)	
2,2',2'',2'''-(Trimethylenedinitrilo)tetrakis(ethylamine);									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	EMF	KNO3	25°C	0.10M	U	H	K1=5.3 K(Mn+MnL)=2.2	1971PWa	(80053)1604
By calorimetry. DH(K1)=-10.7 kJ mol ⁻¹ , DS=65.2 J K ⁻¹ mol ⁻¹									

C11H30N6		L					(6595)		
5-(4'-Amino-2'-azabutane)-5-methyl-3,7-diazanonane-1,9-diamine;									
CH3.C(CH2.NH.CH2.CH2.NH2)3									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.50M	M		K1=8.6 K(MnL+H)=8.1	1991HLA	(80061)1605

C12H6O2Cl4S		H2L					CAS 97-18-7	(4944)	
Bithionol; Cl2.C6H2(OH).S.C6H2(OH).Cl2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	25°C	75%	U		K1=5.32 B2=9.34	1970FGa	(80100)1606
Medium: 75% EtOH, 1.0 M NaClO4									

C12H8N2		L					Phenanthroline CAS 66-71-7	(144)	
1,10-Phenanthroline;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	cal	non-aq	25°C	100%	C	IH	K1=3.60 B2= 6.73 B3=8.44	2000KYa	(80480)1607
Medium: DMF, 0.4 M Et4NClO4. Also data for I=0.16 M Et4NClO4.									
DH(K1)=-15.0 kJ mol ⁻¹ , DH(B2)=-33.1, DH(B3)=-46.4									
Mn++	EMF	NaClO4	20°C	1.50M	U		K1=4.1 B2=7.8 B3 = 10.8	1990IAa	(80481)1608

Medium: LiClO4

Mn++ gl NaNO3 35°C 0.10M U M K1=3.93 1985KSc (80482)1609
K(MnL+CMF)=3.65

H2CMP=cytidine-5'-monophosphoric acid

Mn++ gl diox/w 25°C 50% U M K1=6.95 B2=12.84 1984ABb (80483)1610
B(MnL(PFHA))=12.22
B(MnL(PTHA))=12.37

PFHA=N-phenyl-2-furylhydroxamate, PTHA=N-phenyl-2-thenohydroxamate

Mn++ sp NaClO4 25°C 0.20M U I K1=3.05 1983EBa (80484)1611

Mn++ gl KNO3 35°C 0.10M C M K1=4.23 1979MTb (80485)1612

Mn++ gl NaClO4 25°C 0.10M C M K1=4.01 1978MSd (80486)1613
B(MnL(ATP))=9.04

Mn++ kin NaClO4 19°C 0.20M U K1=2.6 1976BMa (80487)1614

Mn++ kin alc/w 25°C 100% U K1=3.8 1973BMb (80488)1615
Medium: MeOH, 0.2 M NaClO4

Mn++ ISE alc/w 25°C 50% U K1=4.06 B2=8.22 1972BBa (80489)1616
B3=11.69

Medium: 50% EtOH, 0.15 M K2SO4. In aqueous soln: K1=4.18, B2=7.09, B3=10.50

Mn++ cal NaNO3 20°C 0.10M U H 1963ANb (80490)1617
DH(K1)=-14.6 kJ mol⁻¹, DS=28.4 J K⁻¹ mol⁻¹; DH(B2)=-29.3, DS=45.6;
DH(B3)=-37.6, DS=43.5

Mn++ gl KNO3 20°C 0.10M U K1=4.13 B2=7.61 1963ANg (80491)1618
K3=2.7

Mn++ EMF oth/un 25°C 0.10M U K1=3.88 B2=7.04 1963DBa (80492)1619
K3=3.07

Mn++ EMF oth/un 25°C 0.10M U K1=3.5 B2=6.75 1962IMa (80493)1620
K3=3.0

Medium: K2SO4

Mn++ dis KCl 25°C 0.10M U K1=4.50 B2=8.65 1962IMa (80494)1621
K3=4.05

Mn++ sp oth/un ? 0.50M U B3=7.35 1955MBb (80495)1622

C12H8N4O4S2 H2L CAS 3385-61-8 (2586)

7-(2-Thiazolylazo)-8-hydroxyquinoline-5-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	sp	diox/w	25°C	50%	U		K1=6.09	1977RIa (80556)	1623

		C12H8O2Cl2S	H2L				CAS 97-24-5	(4946)	
Fentichlor; Cl.C6H3(OH).S.C6H3(OH).Cl									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	25°C	75%	U		K1=5.98 B2=10.48	1970FGa (80563)	1624
Medium: 75% EtOH, 1.0 M NaClO4									

		C12H10N3OBr	HL				CAS 5756-88-7	(4001)	
1-(4'-Bromophenyl)-3-hydroxy-3-phenyltriazene;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	70%	U		K1=5.90 B2=10.85	1965PSd (80753)	1625
Medium: 70% dioxan, 0.1 M KCl									

		C12H10N3OCl	HL				CAS 52756-05-6	(3998)	
1-(2'-Chlorophenyl)-3-hydroxy-3-phenyltriazene;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	70%	U		K1=5.36 B2=9.78	1964PSg (80760)	1626
Medium: 70% dioxan, 0.1 M KCl									

		C12H10N3OCl	HL				CAS 5756-86-5	(3999)	
1-(4'-Chlorophenyl)-3-hydroxy-3-phenyltriazene;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	70%	U		K1=5.83 B2=10.50	1964PSb (80766)	1627
Medium: 70% dioxan, 0.1 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
Mn++	gl	NaClO4	30°C	0.10M	U		K1=4.00 B2= 5.79	1981GMi (80784)	1628

		C12H11NOS	HL	Thionalide			CAS 93-42-5	(4002)	
2-Mercapto-N-(2'-naphthyl)acetamide;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	20°C	75%	U		K1=4.4 B2=8.8	1968BKb (80818)	1629
Medium: 75% dioxan, 0.1 M NaClO4									

C12H11NO9 H5L (3975)
N-(2',5'-Dicarboxy-4'-hydroxyphenyl)iminodiethanoic acid;

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

Mn++ gl KNO3 25°C 0.10M U 1967UKa (80854)1630
K(Mn+HL)=6.49
K(Mn+H2L)=1.41

C12H11N3O5 HL (6787)
2-Hydroxy-1-naphthaldehyde thiosemicarbazone;

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

Mn++ gl diox/w 20°C 75% U K1=5.67 B2=9.92 1992SSc (80891)1631
Medium: 75% v/v dioxan/H2O and other mixtures, 0.1 M NaClO4

C12H11N3O2 HL CAS 50536-09-5 (6323)
2-Hydroxy-1-naphthaldehyde-semicarbazone; HO.C10H6.CH:N.NH.CO.NH2

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

Mn++ gl diox/w 20°C 75% U K1=5.03 B2=9.20 1992SSc (80920)1632
Medium: 75% v/v dioxan/H2O and other mixtures, 0.1 M NaClO4

C12H11N3O4S H2L (4003)
3-Hydroxy-3-phenyl-1-(4'-sulfonyl)triazene;

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

Mn++ gl diox/w 25°C 70% U K1=4.83 B2=8.21 1964PSf (80940)1633
Medium: 70% dioxan, 0.1 M KCl

C12H12NO3Cl HL (1055)
2-Chloro-4-dimethylamino-benzylidenepyruvic acid; (CH3)2N.C6H3Cl.CH:CH.CO.COOH

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

Mn++ sp NaClO4 25°C 0.50M C K1=0.441 1984MTa (80970)1634

C12H12N2O HL CAS 70301-52-9 (1940)
2-(Hydroxyphenyliminomethyl)pyridine; C5H4N.CH2.NH.C6H4.OH

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

Mn++ EMF KNO3 20°C 0.10M U K1=4.39 1978CSa (81028)1635

C12H12N2O3 HL Nalidixic acid CAS 389-08-2 (1401)
1-Ethyl-1,4-dihydro-7-methyl-4-oxo-1,8-naphthyridine-3-carboxylic acid;

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++       gl  mixed  25°C  75%  U          K1=4.14          1998SJb (81077)1636
Medium: 75% DMSO/H2O, 0.10 M NaClO4.

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-----
Mn++       sp  KCl    25°C  0.10M U          K1=3.1           1978TSb (81078)1637
*****
C12H12N2O4Cl2      L          CAS 53-85-0 (8151)
5,6-Dichloro-1-(beta-D-ribofuranosyl)benzimidazole;

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++       gl  NaNO3  25°C  0.50M M          K1=0.31          1998KSd (81103)1638
*****
C12H12N4O2          HL      AHMP          CAS 62201-49-4 (7697)
4-(4-Acetophenyl)hydrazono-3-methyl-2-pyrazolin-5-one;

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++       gl  alc/w  25°C  50%  U T H      K1=5.95  B2=11.19  1999EEa (81128)1639
Medium: 50%(v/v) EtOH/H2O, 0.10 M KCl. DH(K1)=-23.9 kJ mol-1,
DS(K1)=33.6 J K-1 mol-1; DH(K2)=-22.98 kJ mol-1, DS(K2)=20.0 J K-1 mol-1.
*****
C12H12N8B          HL          CAS 40250-95-1 (7937)
Tetrakis(pyrazolyl)borate;

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++       dis non-aq 25°C  100%  C          2001KSb (81145)1640
K(Mn+2HL=MnL2(org)+2H)=0.5
Method: solvent extraction into chloroform.
K: Mn+2HL(org)=MnL2(org)+2H.
*****
C12H12O3            HL          (6844)
3-Benzoylpenta-2,4-dione; CH3.CO.CH(CO.C6H5)CO.CH3

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++       gl  KCl    25°C  0.20M U          K1=4.48          1992CMd (81165)1641
*****
C12H13NO3            HL          (1054)
4-Dimethylamino-benzylidenepyruvic acid; (CH3)2N.C6H4.CH:CH.CO.COOH

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++       sp  NaClO4 25°C  0.50M C          K1=0.489         1984MTa (81200)1642
*****
C12H13N3            L          CAS 1539-42-0 (932)
bis-((2-Pyridyl)methyl)-amine (Di-2-picolylamine); C5H4N.CH2NHCH2.C5H4N

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  KNO3   20°C 0.10M C   H   K1=3.52   B2=6.05   1977AHc (81286)1643
Calorimetry: DH1=-10.46 kJ mol-1, DS1=32.2; DH(B2)=-20, DS(B2)=36
-----
Mn++      gl  KNO3   25°C 0.10M U           K1=4.16   B2=7.07   1968RBa (81287)1644
*****
C12H13N3OS          HL                      CAS 76877-48-0 (1289)
2-(4',5'-Dimethyl-2-thiazolylazo)-4-methylphenol;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  diox/w 25°C 60% U           K1=5.22   B2=10.63  1981KTa (81301)1645
*****
C12H13N5O4          L   Ethenoadenosine CAS 39007-51-7 (6331)
N6-Ethenoadenosine;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  NaNO3  25°C 0.10M C           K1=0.72           1983SSc (81319)1646
-----
Mn++      sp  none   22°C 0.0 C           1979VWa (81320)1647
K1eff=0.72
Method: fluorescence spectroscopy. Medium pH ca. 6.
*****
C12H14N4O2S          L   Sulfadimidine CAS 57-68-1 (6167)
2-(4-Aminobenzolsulfamido)-4,6-dimethylpyrimidine;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  NaNO3  25°C 0.10M U   M           1988SSg (81371)1648
K(Mn(NTA)+L)=1.24
*****
C12H14N5O7P          H2L   e-AMP          CAS 361-99-9 (6334)
1,N6-Ethenoadenosine-5'-monophosphoric acid;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  NaClO4 25°C 0.10M C           K1=2.59           1984SSe (81384)1649
-----
Mn++      sp  none   22°C 0.0 C           1979VWa (81385)1650
K1eff=0.87
Method: fluorescence spectroscopy. Medium pH ca. 6.
*****
C12H14O3             HL                      CAS 543-05-8 (4900)
Ethyl 2-phenylacetoacetate; CH3.CO.CH(C6H5).CO.O.CH2.CH3
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Mn++ gl diox/w 30°C 75% U K1=9.02 1973AAa (81401)1651

 C12H14O14 H6L CAS 111451-17-3 (5895)
 3,6-Dioxaoctane-1,2,4,5,7,8-hexacarboxylic acid; (CH2(COOH).CH(COOH).O.CH(COOH)-)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	KCl	25°C	0.10M	C			K1=7.00 K(MnL+H)=4.67 K(MnHL+H)=4.03 K(MnH2L+H)=3.54 K(MnL+Mn)=2.57	1989MMd (81418)	1652
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 C12H15N05 H3L (4930)
 1-Hydroxy-4-methylphenyl-2-methyleneiminodiethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	oth/un	25°C	0.0	U			K1=9.0	1970TTb (81499)	1653
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 C12H15N5O10P2 H3L EthenoADP CAS 38806-39-2 (8857)
 1,N6-Ethenoadenosine-5'-diphosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	sp	none	22°C	0.0	C			K1eff=1.02	1979VWa (81538)	1654
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Method: fluorescence spectroscopy. Medium pH ca. 6.
 Other species also present.

 C12H16N2O8 H4L (6460)
 1,4-Diaminobut-2-yne-N,N,N',N'-tetraethanoic acid;
 (HOOC.CH2)2N.CH2.CC.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	KCl	25°C	0.10M	U			K1=5.65 K(Mn+HL)=4.49 K(Mn+MnL)=4.2	1979TSa (81603)	1655
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 C12H16N5O13P3 H4L e-ATP CAS 37482-17-0 (5714)
 1,N6-Ethenoadenosine 5'-triphosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	NaNO3	25°C	0.10M	U			K1=5.10 K(Mn+HL)=3.26 K(MnL+H)=4.7	1986SSb (81630)	1656
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Mn++	sp	none	22°C	0.0	C				1979VWa (81631)	1657
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Thiamine pyrophosphoric acid, Aneurine pyrophosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaCl	23°C	0.15M	U		K1=4.20	1989DBb (81943)	1664
Mn++	gl	KNO3	45°C	0.10M	U T		K1=4.03 K(MnL+H)=2.65	1981TTa (81944)	1665

5 C: K1 = 3.82

Mn++	gl	KNO3	35°C	0.10M	U		K1=4.30 K(Mn+HL)=2.84	1978KBa (81945)	1666
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C12H20N2O2 H2L CAS 6310-76-5 (3387)

4,4'-Ethylenedi-iminodi(pentan-2-one);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	25°C	0.2M	U		K1=6.64	1999MTc (82007)	1667

Medium: 0.2 M KCl in 3:7 v/v H2O/EtOH

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
Mn++	vlt	KNO3	20°C	0.10M	U		K1=15.66	1968NLa (82029)	1668

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
Mn++	vlt	KNO3	25°C	0.10M	U		K1=6.74	1974SGa (82084)	1669

Mn++	gl	KNO3	30°C	0.10M	U		K1=5.18	1971TSc (82085)	1670
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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
Mn++	vlt	KNO3	20°C	0.10M	U		K1=13.37	1976NKa (82138)	1671

Mn++	gl	KNO3	20°C	0.10M	U		K1=13.30	1966MKb (82139)	1672
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C12H20N2O8 H4L CAS 2458-58-4 (922)

1,4-Diaminobutane-N,N,N',N'-tetraethanoic acid; (HOOC.CH2)2N.(CH2)4.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++ gl KNO3 20°C 0.10M U H 1964ANa (82229)1673
 K(Mn+MnL)=1.82
 By calorimetry: DH(K1)=14.3 kJ mol⁻¹, DS=231 J K⁻¹ mol⁻¹

Mn++ gl KNO3 20°C 0.10M U K1=9.53 1964LAa (82230)1674
 K(Mn+HL)=5.44

 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
 Mn++ ISE KNO3 20°C 0.10M U K1=16.72 1971ISa (82316)1675
 K(Mn+HL)=2.68

Mn++ vlt KNO3 20°C 0.10M U K1=16.72 1966DMa (82317)1676

Mn++ oth KNO3 20°C 0.10M U K1=17.5 1965JMb (82318)1677
 Method: electrophoresis

Mn++ vlt KNO3 20°C 0.10M U K1=16.3 1964MNa (82319)1678

 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
 Mn++ ISE KNO3 20°C 0.10M U K1=14.10 1971ISa (82406)1679
 K(Mn+HL)=3.46

Mn++ vlt KNO3 20°C 0.10M U K1=14.11 1966DMa (82407)1680

Mn++ oth KNO3 20°C 0.10M U K1=15 1965JMb (82408)1681
 Method: electrophoresis

Mn++ vlt KNO3 20°C 0.10M U K1=14.2 1964MNa (82409)1682

 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
 Mn++ gl KNO3 20°C 0.10M U H K1=10.07 1964ANa (82467)1683
 K(Mn+HL)=5.53
 By calorimetry:DH(K1)=-6.4 kJ mol⁻¹, DS=175 J K⁻¹ mol⁻¹

Mn++ gl KCl 20°C 0.10M U K1=9.64 1964PCa (82468)1684

$$K(\text{Mn}+\text{HL})=5.08$$

C12H20N2O9 H4L EEDTA CAS 923-73-9 (2112)
Oxa-bis(ethyleneimino)diethanoic acid; ((HOOCH₂)₂NCH₂CH₂)₂O

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	cal	KNO ₃	25°C	0.10M	U	H		1965WHa (82549)	1685
DH(K ₁)=-23.4 kJ mol ⁻¹ , DS=171 J K ⁻¹ mol ⁻¹									

Mn++	gl	KNO ₃	20°C	0.10M	U	H	K ₁ =13.76	1964ANa (82550)	1686
By calorimetry: DH(K ₁)=-24.7 kJ mol ⁻¹ , DS=192 J K ⁻¹ mol ⁻¹									

Mn++	gl	KCl	20°C	0.10M	U		K ₁ =13.2	1964PCa (82551)	1687
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C12H20N4 L (6709)
3,7,10,16-Tetraazabicyclo[10.3.1]hexadeca-1(16),12,14-triene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	KNO ₃	25°C	0.10M	C		K ₁ =7.29	1993CDa (82606)	1688
K(Mn(OH)L+H)=9.93									

C12H20N4O6 H2L (7078)
1,4,7,10-Tetraazacyclododeca-2,9-dione-4,7-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	KCl	25°C	0.10M	C		K ₁ =5.07	1995IOb (82624)	1689
K(MnL+H)=3.52									

C12H21N3O6 H3L NOTA (5589)
1,4,7-Triazacyclononane-N,N',N''-triethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	R4N.X	25°C	0.10M	M		K ₁ =14.9	1990CBc (82738)	1690
Medium: Me ₄ NCl									

Mn++	gl	KNO ₃	25°C	0.10M	U		K ₁ =14.3	1975HTa (82739)	1691
By competition with Cd ion.									

C12H21N3O6 H3L CAS 111769-28-9 (8145)
Azetidine-2-carboxy-1-(4-azaheptane-1-amino-1,5-dicarboxylic acid);

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

Mn++	gl	oth/un	25°C	0.10M	M		K ₁ =8.8	1983BSd (82752)	1692
Medium: 0.10 M KClO ₄ .									

C12H22N2O6		H2L		(6394)	
1,7-Dioxa-4,10-diazacyclododecan-4,10-diethanoic acid;					

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

Mn++	g1	R4N.X	25°C	0.10M	C K1=11.03 1992ADa (82793)1693
Medium: 0.1 M Me4NN03					

C12H22N2O6										H2L										(6641)									
7,10-Diaza-1,4-Dioxacyclododecane-7,10-diethanoic acid;																													

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

Mn++		g1		R4N.X		25°C		0.10M		C						K1=10.72				1992ADa (82807)1694									
Medium: 0.1 M Me4NNO3																													

C12H22N4O6										H2L		ICRF 243		(5772)	
DL-NN'-Dicarboxamidomethyl-NN'-dicarboxymethyl-2,3-diaminobutane;															

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

Mn++	gl	NaCl	37°C	0.15M	U				K1=10.626	1985HCa (82834)		1695			
									B(MnHL)=12.225						
									B(MnH-1L2)=1.274						

C12H22N4O6										H2L		ICRF 226		CAS 83266-80-2 (8370)	
N,N'-(1-Ethyl-1,2-ethanediyl)bis[N-(2-amino-2-oxoethyl)glycine];															

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

Mn++	gl	NaCl	37°C	0.15M	C			K1=9.382	1982Hmb (82844)1696						

C12H22N4O6										H2L	ICRF	236	(5771)
meso-NN'-Dicarboxamidomethyl-NN'-dicarboxymethyl-2,3-diaminobutane;													

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

Mn++	g1	NaCl	37°C	0.15M	U			K1=7.615		1985H	Ca (82852)	1697	
								B(MnHL)=9.452					

C12H22O12		HL	Lactobionic acid		CAS 96-82-2	(2487)
4-O-Beta-D-Galactopyranosyl-D-gluconic acid;						

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

Mn++	gl	oth/un	20°C	0.10M	U	1985NHa (82933)1698
						K(MnL+H)=9.84
						K(MnL+OH)=5.23
						K(MnL(OH)+OH)=1.95

C12H23N3O5 H2L (6393)
1-Oxa-4,7,10-triazacyclododecan-4,10-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	R4N.X	25°C	0.10M	C			K1=12.737 B(MnHL)=15.88	1992ADa	(82974)1699

Medium: 0.1 M Me₄NNO₃

C12H24N2O3 HL Leu-Leu CAS 36077-41-5 (974)
Leucyl-leucine; H2N.CH(CH2.CH(CH3)2).CO.NH.CH(CH2.CH(CH3)2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KCl	20°C	0.20M	U			K1=2.15	1982KRC	(83041)1700
Using EPR spectroscopy: K1=1.96										

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
Mn++	gl	R4N.X	25°C	0.10M	C	H		K1=14.54	2001BCa (83089)	1701

$$\begin{aligned} K(\text{MnL}+\text{H}) &= 4.25 \\ K(\text{MnHL}+\text{H}) &= 4.45 \\ K(\text{MnL}+\text{OH}) &= 2.50 \end{aligned}$$

Medium: 0.10 M Me₄NCl. By calorimetry: DH(K₁)=-23.4 kJ mol⁻¹, DH(MnL+H)=-32.2, DH(MnHL+H)=-33.9, DH(MnL+OH)=-1.7.

C12H24N4O4	H2L	CAS 229312-34-9	(7904)
1,4,7,10-Tetraazacyclododecane-1,4-bis(ethanoic acid);			

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	R4N.X	25°C	0.10M	C	H		K1=16.13	2001BCa (83098)	1702

$$\begin{aligned} K(\text{MnL}+2\text{H}) &= 8.31 \\ K(\text{MnL}+\text{OH}) &= 2.49 \end{aligned}$$

Medium: 0.10 M Me₄NC⁺l⁻. By calorimetry: DH(K₁)=-33.0 kJ mol⁻¹, DH(MnL+2H)=-41.8, DH(MnL+OH)=-0.8.

C₁₂H₂₄N₄O₄ H₂L (7522)
1,4,8,11-Tetraazacyclotetradecane-6,13-dicarboxylic acid

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.50M	U			K1=18.3	1997BLd	(83103)1703

$$\begin{aligned} K(\text{MnL}+\text{H}) &= 8.9 \\ K(\text{MnHL}+\text{H}) &= 3.7 \\ *K(\text{MnL}) &= -9.3 \end{aligned}$$

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
Mn++	con	mixed	25°C	90%	C		K1=2.65	2003ISa (83469)	1704
Medium: 90% v/v DMSO/H2O.									
Mn++	con	alc/w	25°C	40%	C		K1=2.55	2002ISa (83470)	1705
Medium: 40% EtOH/H2O.									
Mn++	con	alc/w	25°C	40%	C		K1=2.76	2001ISa (83471)	1706
Medium: 40% v/v EtOH/H2O.									

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
Mn++	gl	R4N.X	25°C	0.05M	U		K1=2.7	1999BDb (83865)	1707
Medium: Et4NClO4									

C12H27N3O2 L (7053)
1,4-Dioxa-7,11,15-triazacycloheptadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	C		K1=3.42	1994CDa (84059)	1708

C12H27N5O2 HL (7521)
6-Methyl-1,4,8,11-tetraazacyclotetradecane-6-amino-3-carboxylic acid

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.50M	U		K1=12.0 K(MnL+H)=8.6 K(MnHL+H)=5.9 *K(MnL)=-8.7	1997BLd (84112)	1709

C12H28N4O2 L CAS 296-36-6 (2472)
1,10-Dioxa-4,7,13,16-tetraazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	dis	non-aq	25°C	100%	C	I		2004CCa (84234)	1710
							K(Mn+A+L(org))=MnAL(org))=11.39		

Distribution of MnA2 from H2O into CH2Cl2. A is nitrate. For the N-tetra-benzyl- derivative, K'=12.24. Distribution into CHCl3, K=10.48; K'=10.13

C12H30N3O9P3 H6L DOPHET CAS 123325-12-2 (227)

1,4,7-Tris(beta-dioxyphosphorylethyl)-1,4,7-triazacyclononane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	1.0M	U			K1=12.77 K(Mn+HL)=8.26 K(Mn+H2L)=5.90 K(Mn+H3L)=4.21	1988MKa (84279)	1711

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	NaClO4	25°C	0.15M	C			K1=10.50	1991BBa (84342)	1712

C12H30N6 L (6409)
6,13-Dimethyl-1,4,8,11-tetraazacyclotetradecane-6,13-diamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.50M	U			K1=6.2 K(MnL+H)=8.2 *K(MnL)=-4.6	1997BLd (84378)	1713

C12H32N4O12P4 H8L DOTPH CAS 91987-74-5 (229)
1,4,7,10-Tetraazacyclododecane-N,N',N'',N'''-tetramethylenephosphonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	1.00M	U	M		B(MnCuL)=30.1 K(Mn+Cu+HL)=25.0 K(Mn+CuL)=4.67 K(Mn+CuHL)=4.30	1988MKb (84415)	1714

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	1.0M	U			K1=16.9 K(Mn+HL)=12.9 K(Mn+H2L)=8.8 K(Mn+H3L)=7.1 K(Mn+H4L)=4.6	1984KMb (84416)	1715

C12H32N6 L (3377)
5-Ethyl-5-(4-amino-2-azabutyl)-1,9-diamino-3,7-diazanonane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	NaClO4	25°C	0.10M	U			K1=8.2 K(Mn+HL)=5.1	1963GCb (84447)	1716

C13H8O3 HL CAS 719-41-5 (3397)
1-Hydroxyxanthone (1-Hydroxy-9-xanthenone)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.10M	U			K1=4.51 B2=7.22	1986DDa (84497)	1717

C13H9NOS HL CAS 3411-95-8 (1683)
2-(2-Hydroxyphenyl)benzothiazole;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	50%	U			K1=5.80	1954CFa (84553)	1718

C13H9NO2BrCl HL CAS 104614-71-3 (9109)
4-Bromo-N-(3-chlorophenyl)-N-hydroxybenzamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	50%	C	M		K1=6.55 B(Mn(gly)L)=12.00	2001AMc (84577)	1719

Medium: 50% v/v dioxane/H2O

C13H9NO2ClF HL CAS 104614-72-4 (9107)
N-(3-Chlorophenyl)-4-fluoro-N-hydroxybenzamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	50%	C	M		K1=6.78 B(Mn(gly)L)=12.46	2001AMc (84585)	1720

Medium: 50% v/v dioxane/H2O

C13H9NO2Cl2 HL CAS 67201-86-9 (9108)
4-Chloro-N-(3-chlorophenyl)-N-hydroxybenzamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	50%	C	M		K1=6.56 B(Mn(gly)L)=12.04	2001AMc (84593)	1721

Medium: 50% v/v dioxane/H2O

C13H9N3O4S2 H2L CAS 2536-61-0 (4031)
1-(1',3'-Thiazol-2'-ylazo)-2-hydroxynaphthalene-6-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	alc/w	25°C	50%	U	I		K1=4.9 B2=8.9	1967NPb (84643)	1722

Medium: 50% MeOH, 0.1 M NaCl0.4. In 0% MeOH: K1=4.3, K2=3.3

C13H10NO2Br HL CAS 82461-64-1 (1121)

N-Phenyl-2-bromobenzohydroxamic acid; Br.C6H4.CO.N(C6H5)OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	50%	U	T H		K1=6.25 B2=11.19	1977AGc	(84702)1723
At 35 C: K1=6.07, K2=4.76. DH(K1)=-31.7 and DH(K2)=-31.7 kJ mol ⁻¹										

Mn++	gl	diox/w	35°C	50%	U			K1=6.07 B2=10.83	1974ATa	(84703)1724

C13H10N02Cl		HL						(8130)		
N-(2-Chlorophenyl)benzohydroxamic acid;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	50%	U			K1=7.25 B2=12.90	1986ARb	(84710)1725
Also data for the N-(2-chlorophenyl)-3-methoxy, 3-methyl, 3-fluoro, 3-chloro, 3-bromo-, 3-iodo and 3-nitro-benzohydroxamic acids.										

C13H10N02Cl		HL						CAS 36016-24-7	(1818)	
N-(4-Chlorophenyl)benzohydroxamic acid; C6H5.CO.N(C6H4Cl)OH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	70%	U			K1=5.23 B2=9.57	1967JSa	(84718)1726
Medium: 70% dioxan, 0.1 M KCl										

C13H10N02Cl		HL						CAS 78154-49-1	(5649)	
N-3-Chlorophenylbenzohydroxamic acid;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	50%	C	M		K1=6.92 B2=15.47	2001AMc	(84738)1727
B(Mn(gly)L)=12.77										

Medium: 50% v/v dioxane/H2O

Mn++	gl	diox/w	30°C	50%	U			K1=8.72 B2=15.47	1994JBb	(84739)1728
Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4.										

Mn++	gl	diox/w	25°C	50%	U			K1=4.91	1989PMb	(84740)1729

C13H10N02Cl		HL						CAS 105417-12-7	(1122)	
N-Phenyl-2-chlorobenzohydroxamic acid; Cl.C6H4.CO.N(C6H5)OH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	50%	U	T H		K1=6.22 B2=11.33	1977AGc	(84750)1730
At 35 C: K1=6.04, K2=4.93. DH(K1)=-31.7 and DH(K2)=-31.7 kJ mol ⁻¹										

Mn++	gl	diox/w	35°C	50%	U			K1=6.04 B2=10.97	1974ATa	(84751)1731

C13H10N02F HL CAS 90493-82-6 (1123)
N-Phenyl-2-fluorobenzohydroxamic acid; F.C6H4.CO.N(C6H5)OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	50%	U T H			K1=6.30 B2=11.38	1977AGc	(84759)1732
At 35 C: K1=6.10, K2=4.88. DH(K1)=-35.2 and DH(K2)=-35.2 kJ mol-1										

Mn++ gl diox/w 35°C 50% U K1=6.10 B2=10.98 1974ATa (84760)1733

C13H10N02I HL CAS 90493-83-7 (1120)
N-Phenyl-2-iodobenzohydroxamic acid; I.C6H4.CO.N(C6H5)OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	50%	U T H			K1=6.19 B2=11.03	1977AGc	(84768)1734
At 35 C: K1=6.02, K2=4.68. DH(K1)=-29.9 and DH(K2)=-28.2 kJ mol-1										

Mn++ gl diox/w 35°C 50% U K1=6.02 B2=10.70 1974ATa (84769)1735

C13H10N2 L CAS 3002-77-5 (3400)
2-Methyl-1,10-phenanthroline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	dis	KCl	25°C	0.10M	U			K1=3.0 B2=5.5	1962IMa	(84781)1736
								K3=2.4		

C13H10N2 L CAS 3003-78-6 (2752)
5-Methyl-1,10-phenanthroline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	dis	KCl	25°C	0.10M	U			K1=4.28 B2=7.58	1962MBa	(84816)1737
								K3=3.60		

C13H10N2O HL CAS 5496-07-1 (3404)
2-(2'-Hydroxyphenyl)benzimidazole;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	alc/w	35°C	60%	U			K1=4.20 B2=7.30	1984MLa	(84827)1738

C13H10N2O L Pyocyanine CAS 83-06-5 (2186)
Pyocyanine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	sp	non-aq	25°C	100%	U			K1=2.2	1978MSc	(84838)1739
Medium: DMSO										

C13H10N2O3 HL CAS 19357-10-9 (9111)
N-(2-Pyridyl)-2-carboxybenzamide;

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

Mn++ gl mixed 25°C 40% U K1=5.38 B2= 9.80 2002GSa (84862)1740
Medium: 40% v/v DMF/H2O, 0.1 M NaClO4.

C13H10N2O4 H2L CAS 15766-65-6 (1384)
2-Hydroxy-5-nitrobenzophenone oxime; HO(NO2)C6H3.C(:NOH)C6H5

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

Mn++ gl diox/w 30°C 50% U K1=4.77 1982UVa (84872)1741

C13H10N2O4 HL CAS 2029-61-0 (178)
N-Phenyl-2-nitrobenzohydroxamic acid; O2N.C6H4.CO.N(C6H5).OH

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

Mn++ gl diox/w 25°C 50% U T H K1=5.90 B2=10.44 1977AGc (84898)1742
At 35 C: K1=5.74, K2=4.38. DH(K1)=-28.2 and DH(K2)=-28.2 kJ mol⁻¹

Mn++ gl diox/w 25°C 50% U T K1=5.89 B2=10.63 1977VKa (84899)1743
At 35 C: K1=5.85, K2=4.71

Mn++ gl diox/w 35°C 50% U K1=5.74 B2=10.12 1974ATa (84900)1744

C13H10N2O4 HL CAS 17120-18-2 (220)
N-Phenyl-3-nitrobenzohydroxamic acid; O2N.C6H4.CO.N(C6H5).OH

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

Mn++ gl diox/w 25°C 50% U T K1=5.72 B2=10.32 1977VKa (84910)1745
At 35 C: K1=5.68, K2=4.55

C13H10N2O5 H3L (1389)
2,4-Dihydroxy-5-nitrobenzophenone oxime; (HO)2(NO2)C6H2.C(:NOH)C6H5

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

Mn++ gl diox/w 30°C 50% U K1=7.19 1982UVa (84918)1746

C13H10N2O6S H2L MordentYellow10 CAS 21542-82-5 (1390)
5-(4'-Sulfophenylazo)salicylic acid; HO3S.C6H4.N:N.C6H3(OH).COOH

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

Mn++ gl KNO3 25°C 0.10M U K1=4.94 B2=8.44 1964MTc (84941)1747

C13H11NO HL CAS 779-84-0 (3406)
N-Salicylideneaniline; HO.C6H4.CH:N.C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	27°C	50%	U		K1=3.84 B2=6.96	1972SDb (85036)	1748

Medium: 50% dioxan, 0.1 M NaClO4

C13H11NOS HL CAS 56048-80-7 (5018)
N-Thiobenzoyl-N-phenylhydroxylamine; C6H5.CS.N(C6H5)OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	30°C	75%	U		K1=6.12 B2=12.78	1971DTc (85057)	1749

C13H11NO2 H2L (1383)
2-Hydroxybenzophenone oxime; HO.C6H4.C(:NOH)C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	30°C	50%	U		K1=5.80	1982UVa (85076)	1750

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
Mn++	gl	alc/w	25°C	50%	U		K1=4.7 B2=9.10	1977DWa (85086)	1751

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
Mn++	gl	diox/w	30°C	50%	U		K1=9.03 B2=15.57	1994JBb (85162)	1752

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

Mn++	gl	diox/w	25°C	50%	U		K1=5.08 B2=9.60	1976BLa (85163)	1753
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Mn++	gl	diox/w	25°C	50%	U		K1=6.02 B2=11.17	1972STf (85164)	1754
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Mn++	EMF	diox/w	25°C	75%	U		K1=5.51 B2=9.84	1967JSb (85165)	1755
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Medium: 75% v/v dioxan, 0.1 M KCl

C13H11NO3 H3L CAS 3147-44-2 (1388)
2,4-Dihydroxy-benzophenone oxime; (HO)2C6H3.C(:NOH)C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++ gl diox/w 30°C 50% U K1=7.51 1982UVa (85194)1756

C13H11NO3 H2L CAS 156357-28-7 (8319)
N-(p-Hydroxyphenyl)benzohydroxamic acid;

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

Mn++ gl diox/w 30°C 50% U K1=9.07 B2=16.35 1994JBb (85200)1757
Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4.
For N-(m-hydroxyphenyl)benzohydroxamic acid, K1=8.02, K2=6.37.

C13H11NO5 HL Oxolinic acid CAS 14698-29-4 (2755)
1-Ethyl-6,7-dioxymethylene-quinoline-4-one-3-carboxylic acid;

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

Mn++ sp KCl 25°C 0.10M U K1=3.5 1978TSb (85219)1758

C13H11N3O5 L (1274)
1-Benzoyl-3-pyridin-2-ylthiourea; C5H4N.NH.CS.NH.CO.C6H5

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

Mn++ gl alc/w 25°C 75% U K1=4.19 B2=7.90 1980SMb (85266)1759

C13H11N3O5S H3L (5019)
4-Hydroxy-3-oximinomethylazobenzene-4'-sulfonic acid;

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

Mn++ gl alc/w 25°C 50% U K1=3.52 B2=6.56 1973DSa (85299)1760
Medium: 42% EtOH, 0.2 M NaClO4

C13H11N5O2 L CAS 4453-80-9 (8115)
3-Nitro-1,5-diphenylformazan;

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

Mn++ gl diox/w 30°C 50% C T H K1=5.50 B2= 9.97 2001SKb (85314)1761
Medium: 50% v/v dioxane/water, 0.1 M KCl. Data for 20-40 C.
DH(K1)=-23.7 kJ mol⁻¹, DH(K2)=-18.5.

C13H12N2O6S2 H2L (1333)
4-Sulfono-salicylidene sulfanilamide; HO3S.C6H3(OH).CH:N.SO2.C6H4.NH2

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

Mn++ gl KNO3 32°C 0.10M U K1=5.33 1981SBb (85385)1762

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
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Mn++	sp	NaCl04	25°C	0.10M	U			K1=4.94 B2=9.55	1973BSe (85466)	1763
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C13H13N3O		HL						(4018)		
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3-Hydroxy-1-(2'-methylphenyl)-3-phenyltriazene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	KCl	25°C	0.10M	U			K1=6.68 B2=12.07	1964PSa (85507)	1764
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C13H13N3O		HL						CAS 5756-83-2	(4019)	
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3-Hydroxy-1-(4'-methylphenyl)-3-phenyltriazene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	KCl	25°C	0.10M	U			K1=7.02 B2=12.74	1964PSa (85513)	1765
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C13H13N3O2		HL						CAS 5756-89-8	(4021)	
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3-Hydroxy-1-(4'-methoxyphenyl)-3-phenyltriazene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	diox/w	25°C	70%	U			K1=7.24 B2=13.34	1965PSb (85521)	1766
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Medium: 70% dioxan, 0.1 M KCl

C13H13N5O5		HL						CAS 220035-45-0	(8639)	
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alpha-Pyridoin thiosemicarbazone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	diox/w	30°C	50%	U	TIH		K1=7.71 B2=14.64	19980Fa (85529)	1767
------	----	--------	------	-----	---	-----	--	------------------	-----------------	------

Medium: 50% H2O/dioxane, 0.10 M KNO3. Data for 50% v/v H2O/dioxane, I = 0.05-0.20 M, and for 40 and 50 C at I=0.10. DH and DS values.

C13H13O2Br		HL						(6846)		
------------	--	----	--	--	--	--	--	--------	--	--

3-Benzoyl-5-bromohexa-5-ene-2-one; CH2=CBr.CH2.CH(CO.CH3)CO.C6H5

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

Mn++	gl	KCl	25°C	0.20M	U			K1=4.44	1992CMd (85537)	1768
------	----	-----	------	-------	---	--	--	---------	-----------------	------

C13H13O2Cl		HL						(6842)		
------------	--	----	--	--	--	--	--	--------	--	--

3-Benzoyl-5-chlorohex-5-ene-2-one; CH2=CCl.CH2.CH(CO.CH3)CO.C6H5

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

Mn++	gl	KCl	25°C	0.20M	U			K1=4.51	1992CMd (85545)	1769
------	----	-----	------	-------	---	--	--	---------	-----------------	------

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*****
C13H14NO3P          H2L          CAS 19316-85-7 (1466)
2-Hydroxyphenyl-N-phenylaminomethylphosphinic acid;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++       gl  NaCl04 20°C 0.10M U          K1=5.05      1985SIb (85565)1770
*****
C13H14N3O5P          H2L          CAS 80767-75-5 (1467)
2-Hydroxy-4-nitrophenyl-N-(2-pyridylmethyl)aminomethylphosphinic acid;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++       gl  NaCl04 20°C 0.10M U          K1=5.75      1985SIb (85643)1771
*****
C13H14N3O5P          H2L          CAS 80767-76-6 (1468)
2-Hydroxy-4-nitrophenyl-N-(3-pyridylmethyl)aminomethylphosphinic acid;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++       gl  NaCl04 20°C 0.10M U          K1=5.70      1985SIb (85656)1772
*****
C13H14N4              L          CAS 13103-75-8 (473)
4-(2-Pyridylazo)-N,N-dimethylaniline; C5H4N.N:N.C6H4.N(CH3)2
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++       sp  NaNO3  25°C 0.15M U          K1=0.7       1953KMa (85685)1773
*****
C13H15NO6              H3L          (4999)
2-Benzylnitritotriethanoic acid;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++       oth oth/un 25°C 0.10M U          K1=7.20      1962HKa (85740)1774
*****
C13H15N2O3P          H2L          CAS 80767-72-2 (1460)
2-Hydroxyphenyl-(N-2-pyridylmethylamino)methylphosphinic acid;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++       gl  NaCl04 20°C 0.10M U          K1=5.60      1985SIa (85783)1775
*****
C13H15N2O3P          H2L          CAS 80767-73-3 (1461)
2-Hydroxyphenyl-(N-3-pyridylmethylamino)methylphosphinic acid;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++       gl  NaCl04 20°C 0.10M U          K1=5.60      1985SIa (85796)1776
*****

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C13H15N2O3P H2L CAS 80767-74-4 (1462)
2-Hydroxyphenyl-(N-4-pyridylmethylamino)methylphosphinic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++ gl NaClO4 20°C 0.10M U K1=5.70 1985SIa (85809)1777

C13H15N2O4P H3L CAS 80767-78-8 (1463)
2-Hydroxyphenyl-(N-2-pyridylmethylamino)methylphosphonic acid;
C6H4(OH)CH(PO3H2).NH.CH2.C5H4N

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

Mn++ gl NaClO4 20°C 0.10M U K1=7.70 1985SIa (85822)1778

$$K(Mn+HL)=3.60$$

C13H15N2O4P H3L CAS 85946-85-6 (1464)
2-Hydroxyphenyl-(N-3-pyridylmethylamino)methylphosphonic acid;
C6H4(OH)CH(PO3H2).NH.CH2.C5H4N

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

Mn++ gl NaClO4 20°C 0.10M U K1=7.70 1985SIa (85835)1779

$$K(Mn+HL)=3.60$$

C13H15N2O4P H3L CAS 85946-86-7 (1465)
2-Hydroxyphenyl-(N-4-pyridylmethylamino)methylphosphonic acid;
C6H4(OH)CH(PO3H2).NH.CH2.C5H4N

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

Mn++ gl NaClO4 20°C 0.10M U K1=7.80 1985SIa (85848)1780

$$K(Mn+HL)=3.60$$

C13H15N3OS HL CAS 76877-50-4 (1291)
2-(4',5'-Dimethyl-2-thiazolylazo)-4,6-dimethylphenol;

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

Mn++ gl diox/w 25°C 60% U K1=5.74 B2=11.84 1981Kta (85859)1781

C13H15N3OS HL CAS 76877-45-7 (1295)
2-(4',5'-Dimethyl-2-thiazolylazo)-4-ethylphenol;

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

Mn++ gl diox/w 25°C 60% U K1=5.28 B2=10.59 1981Kta (85868)1782

C13H15N3O2S HL CAS 76877-49-1 (1293)
2-(4',5'-Dimethyl-2-thiazolylazo)-4-methyl-6-methoxyphenol;

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  diox/w 25°C 60% U      B2=10.60      1981KTa (85892)1783
*****
C13H16N4O5      HL      CAS 76877-51-5 (1290)
2-(4',5'-Dimethyl-2-thiazolylazo)-5-dimethylaminophenol;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  diox/w 25°C 60% U      K1=7.11  B2=14.38  1981KTa (85944)1784
*****
C13H16N4O2      HL      (8221)
N-[1-(Methylimidazol-2-yl)methyl]-N-(2-pyridylmethyl)glycine;
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      oth oth/un 25°C 0.13M C      K1=6.0      2001PDa (85946)1785
Method: xanthine/xanthine oxidase assay.
*****
C13H17N3O      L      Aminopyrine      (2030)
1-Phenyl-2,3-dimethyl-4-dimethylamino-5-pyrazolone, Dimethylaminoantipyrine;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  KNO3  25°C 0.50M U      K1=0.74      1980LWa (86000)1786
*****
C13H18N2O4      H2L      CAS 13933-94-3 (4028)
Pyridoxylidenevaline;
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      sp  oth/un 25°C 0.10M U      K1=5.0      1961DRa (86043)1787
*****
C13H20N04P      H3L      (1471)
2-Hydroxyphenyl-N-(cyclohexylamino)methylphosphonic acid;
C6H4(OH)CH(PO3H2).NH.C6H11
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  NaClO4 20°C 0.10M U      K1=6.60      1985SIb (86093)1788
K(Mn+HL)=3.30
*****
C13H20N2O4S      HL      CAS 2130-76-9 (5024)
4-Toluenesulfonyl lysine;
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      vlt KCl  25°C 0.10M U      K1=3.74      1968RFa (86099)1789
*****

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C13H21N3O L CAS 473793-88-3 (8976)
7-Oxa-3,11,17-triazabicyclo[11.3.1]heptadeca-1(17),13,15-triene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	C			K1=3.61	2001CDb (86166)	1790

C13H22N2O8 H4L CAS 1798-14-7 (921)
(Pentamethylenedinitrilo)tetraethanoic acid; ((HOOC.CH2)2N.CH2.CH2)2CH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KNO3	20°C	0.10M	U	H		K1=8.7 K(Mn+HL)=5.6	1964ANa (86200)	1791

By calorimetry: DH(K1)=3.76 kJ mol⁻¹, DS=180 kJ mol⁻¹

C13H22N2O8 H4L CAS 1198-14-7 (5004)
1,2-Diaminopentane-N,N,N',N'-tetraethanoic acid; (HOOCCH2)2NCH2CH(C3H7)N(CH2COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	vlt	KNO3	20°C	0.10M	U			K1=15.60	1974NLa (86231)	1792

C13H22N2O8 H4L (7164)
2,4-Diaminopentane-N,N,N',N'-tetraethanoic acid;
(HOOCCH2)2NCH(CH3)CH2CH(CH3)N(CH2COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KNO3	20°C	0.10M	U			K1=10.97	1981NSc (86259)	1793

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
Mn++	vlt	KNO3	20°C	0.10M	U			K1=15.47	1968NLb (86286)	1794

C13H22N4 L (6710)
3,7,11,17-Tetraazabicyclo[11.3.1]heptadeca-1(17),13,15-triene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	C			K1=5.477	1993CDa (86324)	1795

C13H22N4O6 H2L CAS 93031-56-2 (7079)
1,4,7,10-Tetraazacyclotrideca-2,9-dione-4,7-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++ gl KCl 25°C 0.10M C K1=5.10 1995IOb (86348)1796
K(MnL+H)=3.37

C13H24N2O6 H2L (5610)
1,11-Dioxa-4,8-diazacyclotridecane-N,N'-diethanoic acid;

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

Mn++ gl R4N.X 25°C 0.10M C K1=8.03 1998CCd (86413)1797
*K(MnL)=-10.89

Medium: 0.10 M Me4NNO3.

C14H8N3O8S2F3 HL (9231)
1-(2-Thenoyl),4-trifluoro,2-[2-hydroxy-2-sulpho-5-nitrophenylazo]butadi-1,3-one;

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

Mn++ gl KCl 25°C 0.1M U K1=7.27 B2=13.67 2004ACa (86611)1798

C14H8O3 HL CAS 129-43-1 (2778)
1-Hydroxyanthraquinone;

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

Mn++ gl diox/w 30°C 75% U K1=9.03 B2=17.83 1960KFc (86630)1799

C14H8O7S H3L DASA CAS 83-61-4 (950)
1,2-Dihydroxyanthraquinone-3-sulfonic acid, Alizarin Red S;

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

Mn++ sp oth/un 25°C 0.03M U 1981SPc (86741)1800
K(Mn+HL)=5.63

C14H9NO2 HL CAS 641-63-4 (4038)
2-(2'-Pyridyl)indan-1,3-dione;

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

Mn++ gl diox/w 30°C 75% U K1=8.06 B2=15.74 1964Cmb (86789)1801

C14H10O4 H2L CAS 482-05-3 (8247)
Diphenyl-2,2'-dicarboxylic acid; diphenic acid;

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

Mn++ gl diox/w 30°C 50% U T H K1=5.74 B2= 7.92 1978SJc (86932)1802

Medium: 50% dioxane/H2O, 0.10 M NaClO4. At 40 C, K1=5.54, K2=2.00.

DH and DS values reported.

C14H11NO3 H2L CAS 67707-86-2 (8476)

Salicylideneaniline-3-carboxylic acid;

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

Mn++ gl diox/w 25°C 30% U K1=5.04 1978CPb (86957)1803

Medium: 30% v/v dioxane/H2O, 0.20 M NaClO4.

C14H11NO4 H2L CAS 156357-30-1 (8320)

N-(p-Carboxyphenyl)benzohydroxamic acid;

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

Mn++ gl diox/w 30°C 50% U K1=7.77 B2=13.71 1994JBb (86976)1804

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

For N-(o-carboxyphenyl)benzohydroxamic acid, K1=7.53, K2=5.69.

C14H12NO2Cl HL CAS 67055-92-9 (6301)

N-(3-Chlorophenyl)-4-methylbenzohydroxamic acid; CH3.C6H4.CO.N(C6H4Cl)OH

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

Mn++ gl diox/w 25°C 50% C M K1=7.15 2001AMc (87064)1805

B(Mn(gly)L)=13.20

Medium: 50% v/v dioxane/H2O

Mn++ gl diox/w 25°C 50% U K1=5.15 1989PMb (87065)1806

Data also for 4-fluoro, 4-chloro, 4-bromo, 4-nitro and 4-methoxy analogues

C14H12NO3Cl HL CAS 67135-47-1 (9106)

N-(3-Chlorophenyl)-N-hydroxy-4-methoxybenzamide;

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

Mn++ gl diox/w 25°C 50% C M K1=7.30 2001AMc (87096)1807

B(Mn(gly)L)=13.50

Medium: 50% v/v dioxane/H2O

C14H12N2 L CAS 484-11-7 (450)

2,9-Dimethyl-1,10-phenanthroline;

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

Mn++ dis KCl 25°C 0.10M U K1=<3 1962IMa (87131)1808

C14H12N2O3 H2L CAS 4870-46-6 (3432)

2-Hydroxy-5-methyl-2'-carboxy-azobenzene; HO.C6H3(CH3).N:N.C6H4.CO2H

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

Mn++ gl diox/w 30°C 75% U 1957SFb (87218)1809
K(Mn+H2L=MnL+2H)=-10.6

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

Mn++ gl diox/w 25°C 50% U T K1=5.90 B2=11.68 1977VKa (87263)1810
At 35 C: K1=5.86, K2=5.75

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

Mn++ gl diox/w 25°C 50% U T K1=5.82 B2=10.52 1977VKa (87276)1811
At 35 C: K1=5.78, K2=4.65

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

Mn++ gl diox/w 25°C 50% U T K1=5.74 B2=10.35 1977VKa (87289)1812
At 35 C: K1=5.70, K2=4.37

C14H12O2 HL CAS 119-53-9 (2739)
2-Hydroxydeoxybenzoin, 2-hydroxyphenylacetophenone; HO.C6H5.CH2.CO.C6H5

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

Mn++ gl alc/w 30°C 50% U K1=5.10 1986SBa (87331)1813

C14H12O3 H2L CAS 3669-41-8 (2740)
2,4-Dihydroxydeoxybenzoin, 2,4-dihydroxyphenylacetophenone;

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

Mn++ gl alc/w 30°C 50% U K1=3.10 1986SBa (87342)1814

C14H12O3 HL Benzoic acid CAS 76-93-7 (710)
Diphenylglycolic acid, (benzoic acid); (C6H5)2C(OH).COOH

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

Mn++ sp oth/un ? ? U K1=6.7 1976SCb (87350)1815

C14H12O4 H3L (2741)
2,4,6-Trihydroxydeoxybenzoin, 2,4,6-trihydroxyphenylacetophenone;

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  alc/w  30°C  50%  U          K1=3.27      1986SBa (87358)1816
*****
C14H13NO          HL          CAS 3246-73-9  (5056)
N-(Salicylidene)-2-methylaniline; CH3.C6H4.N:CH.C6H4.OH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  diox/w 27°C  50%  U          K1=3.74      1972SDb (87369)1817
Medium: 50% dioxan, 0.1 M NaClO4
*****
C14H13NO          HL          CAS 952-81-8  (5057)
N-(Salicylidene)-3-methylaniline; CH3.C6H4.N:CH.C6H4.OH
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  diox/w 27°C  50%  U          K1=3.85  B2=7.28  1972SDb (87376)1818
Medium: 50% dioxan, 0.1 M NaClO4
*****
C14H13NO          HL          CAS 982-76-3  (5058)
N-(Salicylidene)-4-methylaniline; CH3.C6H4.N:CH.C6H4.OH
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  diox/w 27°C  50%  U          K1=3.79      1972SDb (87386)1819
Medium: 50% dioxan, 0.1 M NaClO4
*****
C14H13NO2          HL    DPAHA          CAS 4463-22-3  (880)
2,2'-Diphenylacetohydroxamic acid; (C6H5)2.CH.CO.NH.OH
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  alc/w  20°C  50%  U TIH    K1=4.65  B2=8.52  1979RSb (87405)1820
DH(K1)=-11.5 kJ mol-1, DS=50.1 J K-1 mol-1, DH(K2)=-10.6, DS=37.5
*****
C14H13NO2          HL    N,2'-DPAHA          CAS 13663-57-5  (879)
N,2'-Diphenylacetohydroxamic acid; C6H5.CH2.CO.N(C6H5).OH
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  alc/w  20°C  50%  U T H    K1=4.60  B2=8.36  1985RSd (87428)1821
30 C:K1=4.46, K2=3.63; 40 C, K1=4.31, K2=3.50; 50 C, K1=4.20, K2=3.40
DH(K1)=-21.8 kJ mol-1, DS=10 J K-1 mol-1; DH(K2)=-22.4, DS=2.4
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-----
Mn++      gl  alc/w  30°C  50%  U T          K1=4.46  B2=8.09  1981RSa (87429)1822
Medium: 50% v/v EtOH, 0.1 M KNO3
*****
C14H13NO2          HL          CAS 1503-92-0  (1817)
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N-(4-Tolyl)benzohydroxamic acid; C₆H₅.CO.N(C₆H₄.CH₃).OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	30°C	50%	U		K1=9.37 B2=16.61	1994JBb (87446)	1823
Medium: 50% v/v dioxane/H ₂ O, 0.10 M NaClO ₄ .									

Mn++	gl	diox/w	25°C	70%	U		K1=5.78 B2=10.32	1969JSa (87447)	1824

C14H13NO2		HL					CAS 1143-74-2	(4044)	
N-2-Tolylbenzohydroxamic acid; C ₆ H ₅ .CO.N(C ₆ H ₄ .CH ₃).OH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	30°C	50%	U		K1=10.34 B2=19.02	1994JBb (87477)	1825
Medium: 50% v/v dioxane/H ₂ O, 0.10 M NaClO ₄ .									

Mn++	gl	diox/w	25°C	50%	U T		K1=6.25 B2=11.45	1979AMa (87478)	1826
At 35 C, K1=6.14, K2=5.10. Also data for the 4-methyl-, 4-methoxy-, 4-fluoro-, 4-chloro-, 4-bromo- and 4-nitro-benzohydroxamic acid derivatives.									

Mn++	gl	diox/w	25°C	50%	U		K1=6.39 B2=12.01	1972STf (87479)	1827
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Mn++	oth	diox/w	25°C	70%	U		K1=9.75	1968JSc (87480)	1828

C14H13NO2		HL					CAS 14489-88-4	(203)	
N-3-Tolylbenzohydroxamic acid; C ₆ H ₅ .CO.N(C ₆ H ₄ .CH ₃).OH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	70%	U T		K1=7.37 B2=13.97	1975SAa (87492)	1829

C14H13NO2		HL					CAS 17120-15-9	(380)	
N-Phenyl-2-methylbenzohydroxamic acid; CH ₃ .C ₆ H ₄ .CO.N(C ₆ H ₅).OH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	50%	U T		K1=6.61 B2=11.53	1977AGb (87513)	1830
At 35 C: K1=6.46									

Mn++	gl	diox/w	25°C	50%	U T H		K1=6.61 B2=11.53	1977AGc (87514)	1831
At 35 C: K1=6.46, K2=4.77. DH(K1)=-26.4 and DH(K2)=-26.4 kJ mol ⁻¹									

Mn++	gl	diox/w	35°C	50%	U		K1=6.46 B2=11.23	1974ATa (87515)	1832
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Mn++	oth	diox/w	30°C	50%	U		K1=6.33 B2=11.92	1973ASa (87516)	1833

C14H13NO2		HL					CAS 889-29-2	(6259)	
N-Salicylidene-3-methoxyaniline; HO.C ₆ H ₄ .CH:N.C ₆ H ₄ .OCH ₃									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	25°C	50%	U		K1=3.45 B2=6.20	1977DWa (87529)	1834

C14H13NO3 H2L (1386)
2-Hydroxy-5-methoxybenzophenone oxime; HO(CH3O)C6H3.C(:NOH)C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	30°C	50%	U		K1=5.66	1982UVa (87538)	1835

C14H13NO3 HL CAS 34661-16-0 (1124)
N-Phenyl-2-methoxybenzohydroxamic acid; CH3O.C6H4.CO.N(C6H5)OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	50%	U T H		K1=6.98 B2=12.83	1977AGc (87564)	1836

At 35 C: K1=6.80, K2=5.67. DH(K1)=-31.7 and DH(K2)=-31.7 kJ mol-1

Mn++	gl	diox/w	35°C	50%	U		K1=6.80 B2=12.47	1974ATa (87565)	1837
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C14H13N3O2 HL (4045)
1-(4'-Acetylphenyl)-3-hydroxy-3-phenyltriazene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	70%	U		K1=6.09 B2=10.89	1964PSe (87593)	1838

Medium: 70% dioxan, 0.1 M KCl

C14H13O2P HL CAS 3064-56-0 (7013)
2-(Diphenylphosphino)-ethanoic acid; (C6H5)2P.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	50%	U		K1=1.9	1979POa (87636)	1839

Medium: 50% dioxan/H2O, 0.1 M NaClO4

C14H15N5OS HL CAS 220035-48-3 (8653)
alpha-Pyridoin 2-methylthiosemicarbazone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	30°C	50%	U TIH		K1=7.59 B2=14.42	19980Fa (87783)	1840

Medium: 50% H2O/dioxane, 0.10 M KNO3. Data for 50% v/v H2O/dioxane, I = 0.05-0.20 M, and for 40 and 50 C at I=0.10. DH and DS values.

C14H15N5OS HL CAS 220035-52-9 (8654)
alpha-Pyridoin 4-methylthiosemicarbazone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++ gl diox/w 30°C 50% U TIH K1=7.60 B2=14.45 19980Fa (87789)1841
 Medium: 50% H2O/dioxane, 0.10 M KNO3. Data for 50% v/v H2O/dioxane, I =
 0.05-0.20 M, and for 40 and 50 C at I=0.10. DH and DS values.

C14H16NO3P H2L CAS 25881-35-0 (1469)
 Phenyl-N-(benzylamino)methylphosphonic acid; C6H5.CH(P(=O)(OH)2).NH.CH2.C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	NaCl04	20°C	0.10M	U		K1=6.30 K(Mn+HL)=3.05	1985SIb (87812)	1842
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C14H16NO4P H3L CAS 61146-25-6 (1470)
 2-Hydroxyphenyl-N-(benzylamino)methylphosphonic acid; C6H4(OH)CH(P(=O)(OH)2).NH.CH2.C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	NaCl04	20°C	0.10M	U		K1=6.60 K(Mn+HL)=3.30	1985SIb (87825)	1843
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C14H16N2O6 H2L CAS 307340-23-4 (9121)
 N,N'-Bis-(3-carboxy-1-oxopropanyl)-1,2-phenylenediamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	NaCl04	25°C	0.10M	M		K1=3.70 B2= 6.62	2003GSa (87913)	1844
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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
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Mn++	cal	NaCl04	25°C	1.00M	U	H	K1=11.37	1987MNa (87959)	1845
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DH(K1)=-3.3 kJ mol⁻¹; DS(K1)=207 J K⁻¹ mol⁻¹

Mn++	gl	NaCl04	25°C	1.00M	C			1985NKa (87960)	1846
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K(MnL+H)=2.29

K(MnHL+H)=1.7

K(MnH-1L+H)=11.5

C14H16N2O8 H4L CAS 103012-22-2 (1904)
 1,3-Diaminobenzene-N,N,N',N'-tetraethanoic acid; C6H4(N(CH2.COOH)2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	KCl	25°C	0.10M	U		K1=3.10	1968UHa (87983)	1847
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K(Mn+H2L)=1.5

K(Mn+HL)=2.10

B(Mn2L)=5.0

C14H16N2O8 H4L (6108)

1,3-Phenylenediamine-N,N'-disuccinic acid;

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

Mn++ gl NaCl 25°C 0.50M C K1=2.306 1989FRa (87992)1848

B(MnH2L)=10.929

B(MnHL)=7.174

B(Mn2L)=3.067

C14H16N2O8 H4L CAS 91856-15-4 (8449)

1,4-Phenylenediamine-N,N'-disuccinic acid;

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

Mn++ gl NaCl 25°C 0.50M C K1=2.82 1984RFe (88013)1849

B(MnHL)=8.09

K(Mn+HL)=1.46

C14H17N2O4P H3L (1472)

2-Hydroxyphenyl-N-(2-(2'-pyridyl)ethylamino)methylphosphonic
acid; C6H4(OH)CH(PO3H2)NHCH2CH2C5H4N

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

Mn++ gl NaCl04 20°C 0.10M U K1=7.60 1985SIb (88045)1850

K(Mn+HL)=3.50

C14H18N2O2 HL (7898)

1-(2-Hydroxyphenyl)-2,5-diaza-8-oxonona-1,5-diene;

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

Mn++ gl alc/w 25°C 0.2M U K1=5.15 1999MTc (88065)1851

Medium: 0.2 M KCl in 3:7 v/v H2O/EtOH

C14H18N4 L DPEN CAS 4608-34-3 (1850)

N,N'-Bis-(2-pyridylmethyl)-1,2-diaminoethane; (C5H4N.CH2.NH.CH2)2

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

Mn++ gl KNO3 25°C 0.10M U H K1=5.60 1975APc (88114)1852

DH(K1)=-18.8 kJ mol⁻¹, DS=43.5 J K⁻¹ mol⁻¹

Mn++ gl oth/un 25°C 0.10M U K1=5.9 1964PCa (88115)1853

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
Mn++	con	mixed	25°C	90%	C		K1=2.19	2003ISa (88306)	1854

Medium: 90% v/v DMSO/H2O.

Mn++	con	alc/w	25°C	40%	C		K1=1.88	2002ISa (88307)	1855
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Medium: 40% EtOH/H2O.

Mn++	con	alc/w	25°C	40%	C		K1=1.98	2001ISa (88308)	1856
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Medium: 40% v/v EtOH/H2O.

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
Mn++	cal	KNO3	25°C	0.10M	U	H		1965WHa (88717)	1857

DH(K1)=-29.7 kJ mol⁻¹, DS=217 J K⁻¹ mol⁻¹

Mn++	cal	KNO3	20°C	0.10M	U	T H		1963ANb (88718)	1858
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DH(K1)=-17.3 kJ mol⁻¹, DS1=274 J K⁻¹ mol⁻¹

Mn++	cal	KNO3	20°C	0.10M	U	H	K1=17.43	1963ANf (88719)	1859
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DH(K1)=17.3 kJ mol⁻¹, DS=276 J K⁻¹ mol⁻¹

Mn++	dis	NaClO4	20°C	0.10M	U		K1=14.70	1963STc (88720)	1860
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Mn++	vlt	KNO3	20°C	0.10M	U		K1=16.78 K(MnL+H)=2.28	1954SGa (88721)	1861
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C14H22N2O10 H5L (1083)

1-Carboxy-1,5-diaminopentane-N,N,N',N'-tetraethanoic acid;

(HOOCCH2)2NCH(COOH)(CH2)4N(CH2COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	U		K1=8.60 K(Mn+H2L)=2.21 K(Mn+HL)=6.87 B(Mn2L)=12.94 B(Mn2L2)=19.98	1988TGe (88898)	1862

*K(MnH2L)=-4.91, *K(MnHL)=-7.54.

C14H22O2 H2L (4036)

1,2-Dihydroxy-3,5-bis(1',1'-dimethylethyl)benzene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	25°C	50%	U		K(Mn+H2L=Mn(OH)HL+2H)=-14.68	1968TMa (88984)	1863

$$K(\text{Mn}+2\text{H}_2\text{L}=\text{Mn}(\text{HL})_2+2\text{H})=-12.23$$

Medium: 50% MeOH, 0.1 M KNO₃

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
Mn++	gl	NaCl	37°C	0.15M	C		K1=14.31 B(MnHL)=18.72 B(MnH ₂ L)=21.49	1984DMb (89315)	1864
Mn++	cal	KNO ₃	20°C	0.10M	U	T H		1965ANa (89316)	1865
DH(K1)=-30.0 kJ mol ⁻¹ , DS=196.5 J K ⁻¹ mol ⁻¹									
Mn++	cal	KNO ₃	25°C	0.10M	U	H		1965WHa (89317)	1866
DH(K1)=-31.4 kJ mol ⁻¹ , DS=192 J K ⁻¹ mol ⁻¹									
Mn++	EMF	KNO ₃	25°C	0.10M	U		K1=15.5	1960HRa (89318)	1867
Mn++	gl	KNO ₃	25°C	0.10M	C		K1=15.5 K(MnL+H)=4.5	1960WAa (89319)	1868
Mn++	EMF	oth/un	20°C	0.10M	U		K1=15.60 K(MnL+Mn)=2.09 K(Mn+HL)=8.63	1959AND (89320)	1869
Mn++	gl	KNO ₃	25°C	0.10M	U		K1=15.1	1959CFc (89321)	1870
Mn++	gl	oth/un	20°C	0.10M	U		K1=15.13	1958DRa (89322)	1871

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
Mn++	vlt	KNO ₃	20°C	0.10M	U		K1=13.19	1969NDc (89514)	1872
C14H ₂₄ N ₂ O ₈		H4L					(7165)		
1,2-Diaminohexane-N,N,N',N'-tetraethanoic acid; (HOOCCH ₂)NCH ₂ CH(C ₄ H ₉)N(CH ₂ COOH) ₂									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	vlt	KNO ₃	20°C	0.10M	U		K1=15.59	1974NLa (89534)	1873

C14H₂₄N₂O₈ H4L HMDTA CAS 1633-00-7 (920)
1,6-Diaminohexane-N,N,N',N'-tetraethanoic acid; ((HOOC.CH₂)₂N.CH₂.CH₂.CH₂)₂

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++ gl KNO3 20°C 0.10M U H K1=9.03 1964ANa (89589)1874
K(Mn+HL)=5.69

By calorimetry: DH(K1)=3.6 kJ mol⁻¹, DS=185 J K⁻¹ mol⁻¹

C14H24N2O8 H4L CAS 1633-00-7 (5076)

4-Methyl-1,2-diaminopentane-N,N,N',N'-tetraethanoic acid;
(HOOCCCH2)2NCH2CH(N(CH2COOH)2CH2CH(CH3)2

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

Mn++ vlt KNO3 20°C 0.10M U K1=15.44 1968NLb (89637)1875

C14H24N2O8 H4L EDTP (2936)

Diaminoethane-N,N,N',N'-tetrapropoic acid; (HOOCC.CH2CH2)2N.CH2CH2.N(CH2CH2.COOH)2

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

Mn++ gl KCl 30°C 0.10M U K1=4.7 1953CCb (89687)1876

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

Mn++ cal KNO3 25°C 0.10M U H 1965WHa (89894)1877

DH(K1)=-36.8 kJ mol⁻¹, DS=112.9 J K⁻¹ mol⁻¹

Mn++ gl KNO3 20°C 0.10M U H K1=12.28 1964ANa (89895)1878

K(Mn+HL)=7.02

By calorimetry: DH(K1)=-34.1 kJ mol⁻¹, DS=89.9 J K⁻¹ mol⁻¹

Mn++ gl KNO3 20°C 0.10M U K1=12.11 1963FCa (89896)1879

K(Mn+HL)=6.59

Mn++ EMF KNO3 25°C 0.10M U K1=12.3 1960HRa (89897)1880

C14H24N4 L CAS 106202-21-5 (6711)

7-Methyl-3,7,11,17-tetraazabicyclo[11.3.1]heptadeca-1(17),13,15-triene;

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

Mn++ gl KNO3 25°C 0.10M C K1=3.70 1993CDa (89999)1881

K(Mn(OH)L+H)=9.10

C14H25N3O7 H3L (5397)

1-Oxa-4,7,10-triazacyclododecane-4,7,10-triethanoic acid;

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

Mn++ gl R4N.X 25°C 0.10M U K1=16.09 1988ADa (90088)1882

$$K(\text{Mn}+\text{HL})=8.62$$

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
Mn++	cal	R4N.X	25°C	0.10M	U	H		1989DSa (90197)	1883

DH(MnL)=-12.5 kJ mol⁻¹; DS=188; (estimated values).

Mn++ gl R4N.X 25°C 0.10M C K1=12.111 1987DDb (90198)1884

C14H26N4O6 H3L DOTRA (6701)
1,4,7,10-Tetraazacyclododecane-1,4,7-triethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	R4N.X	25°C	0.10M	C	H	K1=19.40	2001BCa (90253)	1885

K(MnL+H)=3.13

Medium: 0.10 M Me4NCl. By calorimetry: DH(K1)=-36.8 kJ mol⁻¹,
DH(MnL+H)=-8.8.

C14H27N3O5 H2L (6473)
1-Oxa-4,8,12-triazacyclotetradecane-4,12-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	R4N.X	25°C	0.10M	U		K1=7.08	1992CDa (90287)	1886

B(MnHL)=13.95

Medium: 0.10 M (NMe4)NO3.

C14H28N2O4 L Cryptand 2,1,1 CAS 31250-06-3 (836)
1,10-Diaza-4,7,13,18-tetraoxabicyclo[8,5,5]eicosane (2,1,1);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	R4N.X	25°C	0.05M	U		K1=5.3	1999BDb (90404)	1887

Medium: Et4NClO4

C14H30N2O5 L (6722)
7,13-Bis(2-hydroxyethyl)-1,4,10-trioxa-7,13-diazacyclopentadecane

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	R4N.X	25°C	0.10M	C		K1=5.28	1995LLa (90631)	1888

Medium: Et4NClO4

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
Mn++	gl	KCl	25°C	0.10M	C		K1=11.03	1998BRa (90846)	1889

		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
Mn++	gl	KNO3	25°C	1.00M	U	M		1988MKb (90874)	1890
							B(MnCuL)=34.1		
							K(Mn+Cu+HL)=29.7		
							K(Mn+CuL)=7.50		
							K(Mn+CuHL)=5.03		

Mn++	gl	KNO3	25°C	1.00M	U		K1=10.8	1987PBa (90875)	1891
							K(Mn+HL)=10.0		
							K(Mn+H2L)=8.2		
							K(Mn+H3L)=5.6		

		C14H36N6	L	TAPEN			CAS 4879-98-5 (5715)		
N,N,N',N'-Tetrakis(3-aminopropyl)diaminoethane; (-CH2.N(CH2.CH2.CH2.NH2)2)2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.50M	M		K1=6.13	1986GMa (90899)	1892

		C14H37N7	L				CAS 298-85-5 (5606)		
1,4,7,10,13,16,19-Heptaazacycloheicosane;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaClO4	25°C	0.15M	C		K1=9.79	1991BBa (90914)	1893
Mn++	gl	NaClO4	25°C	0.15M	U	H	K1=9.79	1990BBc (90915)	1894
DH(K1)=-20.9 kJ mol-1, DS(K1)=115 J mol-1 K-1.									

		C15H10N6O3S3	L	SPT			CAS 748815-23-8 (9213)		
5-(4'-Sulfonylazidophenylazo)-3-phenyl-2-thioxothiazolidin-4-one;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	35°C	40%	C T H		K1=7.05 B2=12.17	2004MUa (90968)	1895
Medium: 40% v/v EtOH/H2O, 0.1 M KCl. Data for 25 and 45 C. DH(K1)=31.59									
kJ mol-1, DS(K1)=238 J K-1 mol-1; DH(K2)=29.68, DS(K2)=194.									

		C15H11NO	HL				CAS 6961-25-7 (4059)		
8-Hydroxy-2-phenylquinoline;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++      gl  diox/w 25°C  50%  U      K1=6.22      1954JFa (91047)1896
*****
C15H11N02      HL      CAS 55022-23-6 (4061)
2-(6'-Methyl-2'-pyridyl)indan-1,3-dione;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Mn++      gl  diox/w 30°C  75%  U      K1=8.72      1964CMb (91063)1897
*****
C15H11N04      HL      CAS 1776-18-7 (955)
3-Phenyl-1-(2'-hydroxy-5'-nitrophenyl)-2-propen-1-one;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Mn++      gl  alc/w  35°C  70%  U      K1=4.36  B2=8.37  1982SLb (91079)1898
*****
C15H11N3      L      CAS 1148-79-4 (488)
2,2':6'2"-Terpyridine; C5H4N.C5H3N.C5H4N
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Mn++      gl  oth/un 25°C  2.00M U      K1=5.12  B2=9.19  1992IAa (91160)1899
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Mn++      kin alc/w  25°C    ?  U      K1=5.0      1973BMb (91161)1900
Medium: MeOH, 0.2 M NaClO4
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Mn++      kin oth/un 25°C  var  U      K1=4.4      1966HHa (91162)1901
*****
C15H11N30      HL      PAN      CAS 85-85-8 (572)
1-(2-Pyridylazo)-2-naphthol; C5H4N.N:N.C10H6.OH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Mn++      sp  alc/w  24°C  40%  U      B2=15.69      1973BJb (91230)1902
Medium: 40% EtOH, 0.1 M NaClO4
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Mn++      dis NaClO4 31°C  0.10M U      B2=15.3      1963BFa (91231)1903
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Mn++      gl  diox/w 25°C  50%  U      K1=8.5  B2=16.4  1962CYa (91232)1904
*****
C15H11N30      HL      (5108)
2-(2'-Pyridylazo)-1-hydroxynaphthalene;
-----

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

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```

Mn++      sp  alc/w  24°C  40%  U      B2=13.54      1973BJb (91258)1905
Medium: 40% EtOH, 0.1 M NaClO4
-----

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*****
C15H11N30      HL      CAS 4312-09-8 (989)

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5-Phenylazo-8-hydroxyquinoline; C6H5.N:N.C9H5N.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	diox/w	25°C	50%	U			K1=6.2 B2=12.57	1965TFa (91269)	1906
------	----	--------	------	-----	---	--	--	-----------------	-----------------	------

Medium: 50% dioxan, 0.1 M NaClO4

C15H11N3O2 H2L (4062)

8-Hydroxy-5-(2'-hydroxyphenylazo)quinoline;

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

Mn++	gl	diox/w	25°C	50%	U			K1=7.1 B2=13.01	1965TFa (91280)	1907
------	----	--------	------	-----	---	--	--	-----------------	-----------------	------

Medium: 50% dioxan, 0.1 M NaClO4

C15H11N3O2 H2L CAS 4563-87-5 (4063)

8-Hydroxy-5-(3'-hydroxyphenylazo)quinoline;

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

Mn++	gl	diox/w	25°C	50%	U			K1=6.6 B2=12.52	1965TFa (91287)	1908
------	----	--------	------	-----	---	--	--	-----------------	-----------------	------

Medium: 50% dioxan, 0.1 M NaClO4

C15H11N3O2 H2L CAS 5087-35-4 (4064)

8-Hydroxy-5-(4'-hydroxyphenylazo)quinoline;

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

Mn++	gl	diox/w	25°C	50%	U			K1=6.6 B2=12.66	1965TFa (91294)	1909
------	----	--------	------	-----	---	--	--	-----------------	-----------------	------

Medium: 50% dioxan, 0.1 M NaClO4

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
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Mn++	gl	NaClO4	25°C	0.10M	C	TIH		K1=5.96 B2=11.16	1985Sma (91307)	1910
------	----	--------	------	-------	---	-----	--	------------------	-----------------	------

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
-------	-----	--------	------	------	-----	-------	----	----------	-----------	--------

Mn++	gl	alc/w	35°C	70%	U			K1=4.5 B2=8.40	1978SLb (91393)	1911
------	----	-------	------	-----	---	--	--	----------------	-----------------	------

Medium: 70% EtOH, 0.1 M KNO3

C15H12OS HL (1261)

mono-Thiodibenzoylmethane; C6H5.CO.CH2.CS.C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++ gl diox/w 30°C 75% U K1=7.43 B2=14.74 1969UTa (91495)1912
Medium: 75% dioxan, 0.01 M Me4NI

Mn++ gl diox/w 30°C 75% U K1=7.67 B2=14.20 1966USa (91496)1913

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

Mn++ gl diox/w 30°C 75% U K1=9.32 B2=17.79 1953UFe (91554)1914

C15H12O3 H2L CAS 1469-94-9 (3445)
2-Hydroxydibenzoylmethane; HO.C6H4.CO.CH2.CO.C6H5

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

Mn++ gl diox/w 30°C 75% U K1=8.56 B2=16.33 1955H0a (91606)1915

C15H13NO2S H2L (6851)
Benzoylacetyl-2-thioanilide; C6H5.CO.CH2.CO.NH.C6H4.SH

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

Mn++ gl oth/un 25°C 0.10M U K1=8.40 1990AIa (91650)1916
Data also for analogues with OH and COOH in place of SH

C15H14NO3Cl HL CAS 113581-14-9 (9105)
N-(3-Chlorophenyl)-4-ethoxy-N-hydroxybenzamide;

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

Mn++ gl diox/w 25°C 50% C M K1=7.50 2001AMc (91705)1917
B(Mn(gly)L)=13.83

Medium: 50% v/v dioxane/H2O

C15H14N2O5S HL (9232)
3-(5-Sulphonylnaphthylazo)penta-2,4-dione;

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

Mn++ gl KCl 25°C 0.1M U H K1=6.91 2004ACb (91736)1918
for 35 C K1=6.77; for 45 C K1=6.64

C15H14O3 HL (5102)
2-Hydroxy-4-benzyloxy acetophenone; C6H5.CH2.O.C6H3(OH).CO.CH3

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

Mn++ gl diox/w 30°C 75% U K1=5.26 B2=8.99 1970KDa (91781)1919
Medium: 75% dioxan, 0.1 M NaClO4

C15H15NO2 HL (2908)
N-(3-Tolyl)-4'-tolylhydroxamic acid; CH3.C6H4.CO.N(C6H4.CH3)OH

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

Mn++ gl diox/w 25°C 50% U T H K1=6.50 B2=11.85 1977AGe (91835)1920

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

Mn++ gl diox/w 25°C 50% U I K1=6.1 B2=12.30 1976AKa (91844)1921
In 60% dioxan: K1=7.4, K2=6.6; 70%: 8.9, 8.1

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

Mn++ gl diox/w 25°C 50% M TI K1=6.34 B2=11.62 1979AGb (91866)1922
Data for 25 and 35 C and for 0-70% dioxan/H2O.

C15H16N2O2 HL CAS 7397-15-1 (6853)
Peonolphenylhydrazone;

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

Mn++ gl diox/w 20°C 75% U T K1=11.43 B2=21.26 1991NNA (91926)1923
30 C: K1=11.12, K2=9.71; 40 C: K1=10.92, K2=9.12

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

Mn++ gl alc/w 20°C 75% U T H K1=9.08 B2=16.20 1993RAa (92031)1924
Medium: 75% v/v MeOH/H2O; 0.10 M KNO3. Data also for 4-Cl and 4-Me analogues

C15H18N2O8 H4L CAS 1099-02-2 (1906)
1-Methyl-2,4-diaminobenzene-N,N,N',N'-tetraethanoic acid;

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

Mn++ gl KCl 25°C 0.10M C K1=2.85 1997DMa (92052)1925
K(Mn+H2L)=1.38
K(Mn+HL)=2.03

K(2Mn+HL)=3.6
K(2Mn+HL+L)=7.71

B(Mn2L2)=8.07

C15H18N2O8 H4L (1934)
1-Methyl-2,5-diaminobenzene-N,N,N',N'-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	oth	oth/un	25°C	0.10M	U		K1=3.5 K(MnL+H)=5.3	1969RMa (92062)	1926

C15H18N2O8 H4L CAS 95478-42-5 (1907)
1-Methyl-2,6-diaminobenzene-N,N,N',N'-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.10M	U		K1=3.16 B(MnH2L)=13.44 B(MnHL)=9.15	1992DRb (92070)	1927

C15H18N2O8 H4L (6114)
2,5-Toluenediamine-N,N'-disuccinic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaCl	25°C	0.50M	C		K1=2.487 B(MnHL)=7.983 B(MnH2L)=12.127	1989FRa (92094)	1928

C15H20N4 L DPTN CAS 63671-70-5 (1851)
N,N'-Bis-(2-pyridylmethyl)-1,3-diaminopropane; (C5H4N.CH2.NH.CH2)2CH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	U	H	K1=4.45	1975APc (92183)	1929

DH(K1)=-13.4 kJ mol⁻¹, DS=40.6 J K⁻¹ mol⁻¹

C15H27N3O6 H3L (6514)
1,5,9-Triazacyclododecane-N,N',N''-triethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	R4N.X	25°C	0.10M	M		K1=12.8	1990CBc (92465)	1930

Medium: Me4NCl

C15H28N2O8 H2L (7126)
1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7-malonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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C16H11N2OI HL CAS 25023-35-2 (5173)

1-(4-Iodophenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	mixed	25°C	75%	U		K1=6.68	1972MCb (92745)	1938
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Medium: 75% acetone, 0.1 M KNO3

C16H11N2O2Cl H2L CAS 3566-94-7 (3474)

1-(5-Chloro-2-hydroxyphenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	diox/w	30°C	75%	U		K1=14.19	1952SNa (92762)	1939
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C16H11N3O3 HL CAS 6410-09-9 (5151)

1-(2-Nitrophenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	mixed	25°C	75%	U		K1=4.07	1972MCb (92799)	1940
------	----	-------	------	-----	---	--	---------	-----------------	------

Medium: 75% acetone, 0.1 M KNO3

C16H11N3O3 HL CAS 6410-46-1 (5152)

1-(4-Nitrophenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	mixed	25°C	75%	U		K1=4.19	1972MCb (92814)	1941
------	----	-------	------	-----	---	--	---------	-----------------	------

Medium: 75% acetone, 0.1 M KNO3

C16H11N3O3S HL CAS 35778-69-9 (4090)

Diphenylthiovioluric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	diox/w	30°C	75%	U		K1=3.09	1973CSb (92826)	1942
------	----	--------	------	-----	---	--	---------	-----------------	------

Medium: 75% dioxan, 0.1 M NaClO4

C16H11N3O4 HL (2910)

1,3-Diphenyl-5-hydroxyimino-hexahydropyrimidine-2,4,6-trione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	diox/w	30°C	75%	C		K1=3.10 B2=5.98	1978MGB (92835)	1943
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C16H11N5O HL (6785)

5-(4-Benzimidazolylazo)-8-hydroxyquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++ gl NaCl 25°C 0.10M M K1=6.92 B2=11.56 19910Ea (92889)1944

C16H12N2 L (6848)
6-Phenyl-2,2'-bipyridyl;

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

Mn++ gl oth/un 25°C 2.00M U K1=2.07 B2=3.87 1992IAa (92907)1945
K3=1.50

C16H12N2O HL CAS 842-07-9 (5156)
1-Phenylazo-2-hydroxynaphthalene;

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

Mn++ gl mixed 25°C 75% U K1=7.32 1972MCb (92920)1946
Medium: 75% acetone, 0.1 M KNO3

C16H12N2O2 H2L CAS 9486-98-2 (3462)
1-(2-Hydroxyphenylazo)-2-hydroxynaphthalene;

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

Mn++ gl mixed 25°C 75% U 1972MCb (92954)1947
K(Mn+HL)=7.24

Medium: 75% acetone, 0.1 M KNO3

C16H12N2O2 H2L CAS 14934-27-1 (5157)
1-(4-Hydroxyphenylazo)-2-hydroxynaphthalene;

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

Mn++ gl mixed 25°C 75% U 1972MCb (92972)1948
K(Mn+HL)=6.96

Medium: 75% acetone, 0.1 M KNO3

C16H12N2O4S H2L CAS 13964-82-4 (3475)
1-(4-Sulfophenylazo)-2-hydroxynaphthalene;

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

Mn++ gl mixed 25°C 75% U K1=3.92 1972MCb (93001)1949
Medium: 75% acetone, 0.1 M KNO3

C16H12O2 HL CAS 56461-08-6 (3453)
2-Benzoylindan-1-one;

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

Mn++ gl diox/w 30°C 75% U K1=8.72 B2=15.71 1959MFa (93144)1950

C16H13N2OCl HL CAS 36458-49-8 (5181)
2-(4-Chlorophenylaminomethyl)-8-hydroxyquinoline;

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

Mn++ gl diox/w 25°C 50% U K1=6.8 1972HUb (93168)1951
Medium: 50% v/v dioxan, 0.1 M KCl

C16H13N2O10AsS2 H5L Thorin I CAS 3688-92-4 (2609)
1-((2-Arsonophenyl)azo)-2-hydroxy-3,6-naphthalylldisulfonic acid;

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

Mn++ gl oth/un 30°C ? U K1=8.96 1964PCa (93202)1952

C16H14N2O HL (1318)
2-(2-Hydroxynaphthyliminomethyl)pyridine;

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

Mn++ gl diox/w 25°C 50% A K1=4.59 1981RUa (93413)1953

C16H14N2O2 H2L CAS 36458-47-6 (5158)
2-(2-Hydroxyphenylaminomethyl)-8-hydroxyquinoline;

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

Mn++ gl diox/w 25°C 50% U K1=9.50 1972HUa (93427)1954

K(Mn+HL)=5.94

K(MnHL+HL)=6.36

Medium: 50% v/v dioxan, 0.1 M KCl

C16H14N4O2 H2L (3467)
5-Hydroxy-4-(2-hydroxyphenylazo)-3-methyl-1-phenylpyrazole;

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

Mn++ gl diox/w 30°C 75% U K1=13.16 1952SNa (93474)1955

K(Mn+H2L=MnL+2H)=-10.6

C16H14O3 HL CAS 41126-22-1 (3457)
2-Methoxydibenzoylmethane; CH3.O.C6H4.CO.CH2.CO.C6H5

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

Mn++ gl diox/w 30°C 75% U K1=9.51 1955H0a (93551)1956

C16H14O3 HL CAS 3327-24-0 (956)

3-(4''-Methoxyphenyl)-1-(2'-hydroxyphenyl)-2-propen-1-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	alc/w	35°C	70%	U			K1=5.4 B2=10.60	1978SLb (93571)	1957
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Medium: 70% EtOH, 0.1 M KNO3

C16H16N2O2 H2L CAS 94-93-9 (2101)
N,N'-Bis(salicylidene)ethylenediamine;(HO(C6H4)CH:NCH2-)2

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

Mn++	gl	alc/w	25°C	0.2M	U			K(Mn+HL)=4.17	1999MTc (93683)	1958
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Medium: 0.2 M KCl in 3:7 v/v H2O/EtOH

C16H16N2O6S2 HL Cephalothin CAS 153-61-7 (9104)
3-(Acetoxymethyl)-8-oxo-7-(2-thienylacetyl amino)-5-thia-1-azabicyclo[4.2.0]oct-2-ene-carboxylic

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	NaCl04	25°C	0.10M	C			K1=5.226 B2= 8.69	2001SGe (93712)	1959
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C16H18N2O4S HL Penicillin G CAS 69-57-8 (942)
Benzylpenicillin;

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

Mn++	gl	NaCl04	20°C	0.10M	U T			K1=5.00 K2=4.35	1982CTa (93807)	1960
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K1 and K2 also supplied at 20 and 30 degrees

C16H18N2O5S HL Penicillin V CAS 87-08-1 (943)
Phenoxymethylpenicillinic acid, 4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	NaCl04	20°C	0.10M	U T			K1=4.45 B2=8.40	1982CTa (93818)	1961
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K1 & K2 also supplied at 30 and 40 degrees

C16H18O9 HL Chlorogenic acid CAS 327-97-9 (2844)
3-(3',4'-Dihydroxycinnamoyl)-1,3,4,5-tetrahydroxycyclohexane carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	KNO3	20°C	1M	U			K1=7.02 B2=12.13	1996AAa (93900)	1962
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C16H19NO HL (6251)
4-(2-Methyl-2'-hydroxy-5'-methylbenzalamino)toluene;

CH3.C6H4.NH.CH(CH3).C6H3(OH).CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	diox/w	30°C	60%	U			K1=5.68 B2=9.75	1979PJ	(93909)1963
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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
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Mn++	gl	KNO3	20°C	0.10M	U			K1=14.58	1989SL	a (94043)1964
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K was determined by a competitive reaction with TREN

Mn++	vlt	KNO3	20°C	0.10M	U			K1=14.58	1969ND	b (94044)1965
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C16H20N2O10		H6L						(704)		
1,2-Dihydroxy-3,6-di-(methyleneiminodiethanoic acid)-benzene;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	KNO3	25°C	0.10M	C			K1=11.02	1988ZH	a (94066)1966
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K(Mn+H2L)=8.21

K(Mn+HL)=10.55

K(MnHL+H)=8.82

K(MnL+H)=11.39

B(Mn2L)=22.9

C16H20N2O10		H6L						CAS 28021-27-4	(5166)	
1,4-Dihydroxyphenyl-2,5-bis(methyleneimino)-N,N,N',N'-tetraethanoic acid;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	oth/un	25°C	0.0	U				1970TT	b (94076)1967
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K(Mn+HL)=10.3

K(Mn+H2L)=8.1

K(Mn+H3L)=6.5

K(2Mn+HL)=18.0

C16H22N4		L	DPTE					CAS 81747-99-1	(1852)	
N,N-Bis-(2-pyridyl-methyl)-1,4-diaminobutane; (C5H4N.CH2.NH.CH2.CH2)2										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	KNO3	25°C	0.10M	U	H		K1=2.57	1975AP	c (94182)1968
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DH(K1)=-0.8 kJ mol⁻¹ DS=47.7 J K⁻¹ mol⁻¹

C16H23N5O4		L						(6969)		
12-(4-Nitrobenzyl)-1,4,7,10-tetraazacyclotridecane-11,13-dione;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaClO4	30°C	0.10M	M		K1=3.15 B(MnH-1L)=-9.48 B(MnH-2L)=-15.54	1994LZa (94299)	1969

C16H24N2O8 H4L CAS 38557-30-1 (1256)
Ethylene-bis(N,N'-(2,6-dicarboxy)piperidine); ((HOOCC2H4N)2)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaNO3	25°C	0.10M	U		K1=11.20	1979PBa (94319)	1970

C16H26N2O2 HL CAS 67224-31-1 (8358)
4-Nonyloxybenzylamide oxime, N-Hydroxy-4-(nonyloxy)benzenecarboximidamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	mixed	22°C	70%	U		K1=7.43 B2=14.55	1978MGd (94552)	1971

Medium: 0.1 M KNO3 in 70% (v/v) dioxane in H2O

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
Mn++	gl	KCl	25°C	0.10M	C		K1=8.7 B(MnHL)=13.3 B(MnH2L)=14.7	1996IOb (94673)	1972

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
Mn++	gl	KNO3	20°C	0.10M	U		K1=9.75	1969NDc (94716)	1973

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
Mn++	vlt	KNO3	20°C	0.10M	U		K1=13.23	1969NDc (94742)	1974

C16H28N2O8 H4L (5138)
1,2-Diaminooctane-N,N',N'-tetraethanoic acid;
(HOOCCCH2)2N.CH2.CH(C6H13)N(CH2COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++ vlt KNO3 20°C 0.10M U K1=15.51 1979MBd (94768)1975

C16H28N2O8 H4L (2850)
1,8-Diaminooctane-N,N,N',N'-tetraethanoic acid; ((HOOCH2)2N(CH2)4)2

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

Mn++ gl KNO3 20°C 0.10M U H K1=9.0 1964ANa (94794)1976
K(Mn+HL)=5.7

By calorimetry: DH(K1)=2.1 kJ mol⁻¹, DS=180 J K⁻¹ mol⁻¹

C16H28N4O4S HL d-Biocytyl CAS 576-19-2 (5195)
N(6)-d-Biotinyl-L-lysine;

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

Mn++ gl NaClO4 25°C 0.10M U K1=2.47 1970GPa (94810)1977

C16H28N4O5S HL CAS 2663-93-6 (6302)
d-Biocytyl sulfoxide;

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

Mn++ gl NaClO4 25°C 0.10M U K1=2.45 1970GPa (94814)1978

C16H28N4O6S HL CAS 26432-35-9 (5196)
Biocytyl sulfone;

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

Mn++ gl NaClO4 25°C 0.10M U K1=2.44 1970GPa (94818)1979

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

Mn++ gl R4N.X 25°C 0.10M C H K1=19.89 2001BCa (94915)1980

K(MnL+H)=4.26

K(MnHL+H)=2.99

Medium: 0.10 M Me4NCl. By calorimetry: DH(K1)=-66.0 kJ mol⁻¹,
DH(MnL+H)=-18.4, DH(MnHL+H)=-2.9.

Mn++ gl R4N.X 25°C 0.10M C K1=20.202 1992CDd (94916)1981

B(MnHL)=24.351

B(Mn2L)=22.60

B(Mn2HL)=26.83

Medium: 0.10 M Me4NNO3.

Mn++ EMF KCl 20°C 0.10M C K1=17.8 1981SFa (94917)1982

Method: Pt/H2 electrode.

C16H29N3O7 H3L (7395)

4,8,12-Tris(carboxymethyl)-1-oxa-4,8,12-triazacyclotetradecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	R4N.X	25°C	0.10M	C		K1=9.18 K(Mn(OH)L+H)=10.63	1997CCa (94952)	1983

Medium: Me4NNO3

C16H29N3O8 H3L CAS 259211-79-5 (7775)

1,4-Dioxa-7,10,13-triazacyclopentadecane-7,10,13-triethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	R4N.X	25°C	0.10M	C		K1=14.44 K(MnL+H)=3.98	2000CDd (94963)	1984

Medium: 0.10 M (Me4N)NO3.

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
Mn++	gl	R4N.X	25°C	0.10M	C	H	K1=8.657	1989DSa (95047)	1985

By calorimetry: DH(MnL)=-6.7 kJ mol⁻¹; DS=67; (estimated values).

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
Mn++	gl	R4N.X	25°C	0.05M	U		K1=5.4	1999BDb (95243)	1986

Medium: Et4NClO4

C16H32N6O HL CAS 303962-27-8 (7706)

2,6-Bis[(bis(2-aminoethyl)amino)methyl]phenol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	R4N.X	25°C	0.15M	C		K1=7.42 B(MnHL)=16.57 B(MnH2L)=24.08 B(MnH-1L)=-2.17 B(Mn2H-1L)=2.32	2002FGc (95363)	1987

Medium: 0.15 M Me4NCl. B(Mn2H-2L)=-5.89, B(Mn2H-3L)=-16.55.

C16H34N2O5 L (6953)

7,13-Bis(2-methoxyethyl)-1,4,10-trioxa-7,13-diazacyclopentadecane;

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  R4N.X  25°C 0.10M C      K1=4.08      1995LLa (95417)1988
Medium: Et4NClO4
*****
C16H34N2O6      L      CAS 69930-74-1 (1321)
N,N'-Bis(2-hydroxyethyl)-1,7,10,16-tetraoxa-4,13-diazacyclooctadecane;
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  R4N.X  25°C 0.10M C      K1=2.88      1995LLa (95452)1989
Medium: Et4NClO4
*****
C16H40N4O12P4      H8L      CAS 41007-47-0 (2070)
1,4,7,10-Tetraethylphosphonic acid-1,4,7,10-tetraazacyclododecane;
C8H16N4(CH2CH2.PO(OH)2)4
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  KNO3   25°C 1.00M U      K1=12.4      1989PBb (95639)1990
                        K(Mn+HL)=8.9
                        K(Mn+H2L)=5.6
                        K(Mn+H3L)=4.6
*****
C16H40N8      L      CAS 297-11-0 (5588)
1,4,7,10,13,16,19,22-Octaazacyclotetracosane;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  NaClO4 25°C 0.15M C      K1=6.27      1991BBa (95659)1991
                        B(MnHL)=14.51
                        K(MnL+H)=8.24
                        K(Mn+HL)=4.86
*****
C17H12N4O7S2      H3L      (6784)
2-(4-Benzimidazolylazo)-2-hydroxynaphthalene-3,6-disulfonic acid;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  NaCl    25°C 0.10M M      K1=6.49      B2=10.60 19910Ea (95729)1992
*****
C17H13NO3S      H2L      CAS 119516-70-0 (6185)
7-Hydroxy-8((2-mercaptophenyl)iminomethyl)-4-methyl-2H-1-benzopyran-2-one;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mn++      gl  diox/w 20°C 70% U T H      K1=10.83      1988KOb (95750)1993
25 C:K=10.50; 32 C: K=10.05; 45 C:K= 9.22. DH=-114.6 kJ mol-1, DS=-183.5
*****

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C17H14N2O HL CAS 2046-17-5 (5214)
1-(2-Methylphenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	mixed	25°C	75%	U			K1=7.35	1972MCb (95797)	1994
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Medium: 75% acetone, 0.1 M KNO3

C17H14N2O HL CAS 6756-41-8 (5215)
1-(4-Methylphenylazo)-2-hydroxynaphthalene;

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

Mn++	gl	mixed	25°C	75%	U			K1=7.84	1972MCb (95812)	1995
------	----	-------	------	-----	---	--	--	---------	-----------------	------

Medium: 75% acetone, 0.1 M KNO3

C17H14N2O2 HL CAS 1229-55-6 (5216)
1-(2-Methoxyphenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	mixed	25°C	75%	U			K1=8.03	1972MCb (95831)	1996
------	----	-------	------	-----	---	--	--	---------	-----------------	------

Medium: 75% acetone, 0.1 M KNO3

C17H14N2O2 HL CAS 13441-91-1 (5217)
1-(4-Methoxyphenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	mixed	25°C	75%	U			K1=7.76	1972MCb (95846)	1997
------	----	-------	------	-----	---	--	--	---------	-----------------	------

Medium: 75% acetone, 0.1 M KNO3

C17H14O3 HL (6843)
1,1-Dibenzoylpropan-2-one; CH3.CO.CH(CO.C6H5)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	KCl	25°C	0.20M	U			K1=4.49	1992CMd (95966)	1998
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C17H15N3O5 HL (1292)
2-(4',5'-Dimethyl-2-thiazolylazo)-4-phenylphenol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	diox/w	25°C	60%	U			K1=5.00 B2=9.87	1981KTa (95994)	1999
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C17H15N3O3S L CAS 141102-86-5 (8342)
Furoin-4-phenyl-3-thiosemicarbazide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++ gl alc/w 30°C 50% U T H K1=8.47 B2=15.90 1991HRa (96001)2000
 Medium: 50% v/v EtOH/H2O, 0.1 M NaClO4. Data for 40 and 50 C.
 DH(K1)=-130 kJ mol⁻¹, DS(K1)=268 J K⁻¹ mol⁻¹; DH(K2)=-128, DS(K2)=281.

C17H16N2O HL CAS 36458-48-7 (5219)
 2-(4-Tolylaminomethyl)-8-hydroxyquinoline;

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

Mn++ gl diox/w 25°C 50% U K1=6.67 B2=12.87 1972HUb (96025)2001
 Medium: 50% v/v dioxan, 0.1 M KCl

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

Mn++ gl mixed 30°C 60% M I K1=5.21 B2=9.79 1991GDb (96153)2002
 Medium: 60%v/v acetone/water; 0.1M NaClO4; data also for 65% and 75%; for
 75% v/v dioxane/water and EtOH/water.

Mn++ gl mixed 30°C 60% M I K1=5.21 B2=9.79 1991GDc (96154)2003
 Medium: 60%v/v acetone/water; 0.1M NaClO4; data also for 65% and 75%; for
 75% v/v dioxane/water and EtOH/water

Mn++ gl alc/w 30°C 75% M TI K1=4.98 B2=9.01 1990DGc (96155)2004
 Medium: 75% v/v EtOH/H2O

C17H16O4 HL CAS 18362-51-1 (3485)
 Di-2-methoxybenzoylmethane; CH3.O.C6H4.CO.CH2.CO.C6H4.O.CH3

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

Mn++ gl diox/w 30°C 75% U K1=9.65 1955HOa (96172)2005

C17H16O6 HL (4111)
 2-Hydroxy-2',4',4'-trimethoxydibenzoyl; HO.C6H4.CO.CO.C6H2(OCH3)3

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

Mn++ gl NaClO4 ? 0.10M U K1=4.35 B2=8.39 1963DSa (96183)2006

C17H20N4O L CAS 192878-10-7 (8495)
 Di(2-ethylphenyl)carbazone;

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

Mn++ gl diox/w 25°C 50% U K1=4.18 B2= 7.84 1996SKb (96303)2007

Medium: Me4NN03

Medium: 0.10 M Me4NN03

1,4,7,10-Tetraazacyclotridecane-1,4,7,10-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KN03	25°C	0.10M	C		K1=16.74 B(MnHL)=20.65 B(Mn2L)=20.07 B(Mn2HL)=24.03	1992CDd (96653)	2015

Mn++	EMF	KCl	20°C	0.10M	C		K1=14.9	1981SFa (96654)	2016
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Method: Pt/H2 electrode.

C17H31N3O8 H3L CAS 282717-18-4 (7776)
1,4-Dioxa-7,10,14-triazacyclohexadecane-7,10,14-triethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	R4N.X	25°C	0.10M	C		K1=9.47 K(MnL+Mn)=3.07	2000CDd (96682)	2017

Medium: 0.10 M (Me4N)NO3.

C17H32N4O7 H3L CAS 120041-08-9 (6702)
10-Hydroxypropyl-1,4,7,10-tetraazacyclododecane-1,4,7-triethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	R4N.X	25°C	0.10M	C	H	K1=17.89 K(MnL+H)=5.07	2001BCa (96718)	2018

Medium: 0.10 M Me4NCl. By calorimetry: DH(K1)=-33.0 kJ mol⁻¹,
DH(MnL+H)=-25.1.

C18H11N02 HL CAS 83-08-9 (4126)
2-(2'-Quinolyl)indan-1,3-dione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	30°C	75%	U		K1=9.31	1964CMB (96842)	2019

C18H15N3O3S HL CAS 61625-17-0 (4139)
Di-4-tolylthiovioluric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	diox/w	30°C	25%	M T		K1=2.91 B2= 5.08	1978MGe (97014)	2020
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Medium: 25% dioxane/H2O, 0.10 M NaClO4. Data for 40, 45 and 50 C.

C18H16N4O3S HL (3505)
(2-(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)azophenylthio)ethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	30°C	75%	U		K1=8.48	1962SCc (97199)	2021

C18H16N4O4		H2L					(3500)		
2-(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-ylazo)phenoxyethanoic acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	30°C	75%	U		K1=8.50	1962SCc (97211)	2022

C18H18N4		L					CAS 16858-01-8	(1528)	
Tris(2-pyridylmethyl)amine; (C5H4NCH2)3N									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	20°C	0.10M	C	H	K1=5.62 K(MnL(OH)+H) > 10	1977AHc (97266)	2023
DH1=-26.0 kJ mol-1, DS1=18.8									
Mn++	gl	KNO3	20°C	0.10M	U	H	K1=5.6	1970WAa (97267)	2024
By calorimetry, DH=-25.9 kJ mol-1, DS=18.3 J K-1 mol-1									

C18H18O3		HL					(5233)		
Ethyl-2,4-diphenyl acetoacetate; C6H5.CH2.CO.CH(C6H5).CO.O.CH2.CH3									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	30°C	75%	C		K1=9.45	1973AAa (97298)	2025

C18H19N5O		HL					CAS 58858-65-5	(4130)	
4-(2'-Dimethylaminophenylazo)-3-methyl-1-phenylpyrazol-5(2H)-one;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	30°C	75%	U		B2=14	1963SYa (97316)	2026

C18H20N2O6		H4L					CAS 10328-28-6	(3501)	
Ethylenedinitrilo-N,N'-bis(2'-hydroxyphenyl)-N,N'-diethanoic acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	C		K1=16.0 K(Mn+HL)=9.8 K(Mn+H2L)=4.7 *K(MnH2L)=-6.4 *K(MnHL)=-7.3	1992GVa (97405)	2027
Mn++	EMF	oth/un	?	?	U		K1=7.89 K(Mn+HL)=5.49	1968TRc (97406)	2028

$$K(\text{Mn}+\text{H}_2\text{L})=3.91$$

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

Mn++ gl oth/un 25°C 0.10M U K1=12.7 1965LCa (97547)2029

C18H26N6 L (6628)

3,6,14,17,23,24-Hexaazatricyclo[17.3.1.1]tetracos-1(23),8,10,12(24),19,21-hexaene;

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

Mn++ gl KCl 25°C 0.10M M K1=15.1 1996MBb (97718)2030

Mn++ gl KCl 25°C 0.20M C K1=12.5 1992RMa (97719)2031

C18H28O10 H2L (OE0AcAcOE)2 CAS 62950-36-1 (2254)

1,4,10,13,16,22-Hexaoxacyclotetracos-6,8,18,20-tetraone;

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

Mn++ gl diox/w 24°C 50% U K1=7.6 1979ACa (97869)2032

C18H30N2O12 H4L (7125)

1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-bis(malonic acid);

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

Mn++ gl NaCl 25°C 0.15M U K1=7.41 1995BGa (97928)2033

C18H30N4O12 H6L TTHA CAS 869-52-3 (694)

Triethylenetetraaminehexaethanoic acid;((HOOCH₂)₂N.CH₂.CH₂.N(CH₂.COOH).CH₂)₂

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

Mn++ gl KNO3 25°C 0.10M C K1=14.71 1998AKa (98068)2034

$$K(\text{MnL}+\text{H})=9.02$$

$$K(\text{MnHL}+\text{H})=3.51$$

$$K(\text{MnH}_2\text{L}+\text{H})=2.73$$

$$K(\text{MnL}+\text{Mn})=6.32$$

Mn++ ISE KNO3 25°C 0.10M U K1=14.30 1970HAa (98069)2035

By glass electrode : K1=14.65, K(MnL+H)=8.74, K(MnHL+H)=3.45, B(Mn₂L)=6.54

C18H31N5O8 H3L (7300)

1,4,7-Tris(carboxymethyl)-1,4,7,10,14-pentaazacycloheptadeca-9,15-dione;

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

C18H38N2O6 L CAS 72911-99-0 (649)
4,13-Bis(2-methoxyethyl)-1,7,10,16-tetraoxo-4,13-diazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	R4N.X	25°C	0.10M	C			K1=2.78	1995LLa (98841)	2043
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Medium: Et4NClO4

C19H12O9Br2S H6L Bromo Pyrog.Red CAS 16574-43-9 (706)
5',5''-Dibromopyrogallolsulfonephthalein;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	sp	oth/un	25°C	?	U	I			1985XZa (99012)	2044
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B(Mn+2L+surfactant=MnL2)=12.30

C19H13N3O4S H2L CAS 85413-91-9 (4144)
1-Hydroxy-2-(8'-quinolylazo)naphthalene-4-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	alc/w	25°C	50%	U			K1=8.6 B2=15.6	1967And (99030)	2045
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Medium: 50% MeOH, 0.1 M NaClO4

C19H15N08 H4L Alizarin Comp. CAS 3952-78-1 (671)
(3,4-Dihydroxy-2-anthraquinonyl-methyl)iminodiethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	sp	oth/un	RT	dil	C				1982EDa (99138)	2046
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B2eff=8.2

Medium: borax buffer, pH 10.

C19H16O3 HL CAS 29632-57-3 (5270)
alpha-(1-Oxo-3-phenyl-2-propynyl)-benzeneethanoic acid ethyl ester;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	diox/w	30°C	75%	U			K1=8.11 B2=14.78	1973AAa (99177)	2047
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C19H17N3O4S2 HL Cephaloridine CAS 50-59-9 (8404)
7-[a-(2-Thienyl)acetamido]-3-(1-pyridylmethyl)-3-cephem-4-carboxylic acid betaine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn++	gl	NaClO4	25°C	0.10M	U	T	M	K1=4.22 B2= 6.87	2000CCe (99193)	2048
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K(MnL+ala)=3.89

Also data at 35 C.

C19H17N5O5 HL CAS 220035-54-1 (8655)

alpha-Pyridoin 4-phenylthiosemicarbazide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	30°C	50%	U	TIH	K1=8.16 B2=16.21	19980Fa (99200)	2049
Medium: 50% H2O/dioxane, 0.10 M KNO3. Data for 50% v/v H2O/dioxane, I = 0.05-0.20 M, and for 40 and 50 C at I=0.10. DH and DS values.									

C19H18N4O3S H2L (4145)
4-(2'-(2''-Carboxyethylthio)Phe-azo)-3-Me-1-Phe-pyrazole-5(2H)-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	30°C	75%	U		K1=7.3	1965SMh (99229)	2050

C19H18N4O4 H2L (4142)
4-(2'-(2''-Carboxyethoxy)phenylazo)-3-methyl-1-Phe-pyrazol-5(2H)-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	30°C	75%	U		K1=7.80	1965SMh (99250)	2051

C19H19N7O6 H3L Folic acid CAS 75708-92-8 (194)
Pteroylglutamic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	NaClO4	37°C	0.15M	U		B2=6.61	1977RWc (99287)	2052

Mn++ gl oth/un 20°C 0.01M U B2=6 1953ALa (99288)2053
C19H28N4O6 H3L CAS 106967-44-6 (8973)
3,7,11-Tris(carboxymethyl)-3,7,11,17-tetraazabicyclo[11.3.1]heptadeca-1(17),13,15-t
riene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	R4N.X	25°C	0.10M	C		K1=11.810 K(MnL+H)=4.55	1998CDa (99410)	2054

Medium: 0.10 M Me4NNO3.

C20H14N2O HL (5291)
1-(1-Naphthylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	mixed	25°C	75%	U		K1=7.02	1972MCb (99601)	2055

Medium: 75% acetone, 0.1 M KNO3

C20H14N2O HL CAS 2653-64-7 (5292)

1-(2-Naphthylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	mixed	25°C	75%	U		K1=7.27	1972MCb (99616)	2056
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Medium: 75% acetone, 0.1 M KNO₃

C20H16N4O5S H2L EriochromeRed B CAS 14954-75-7 (3510)
 4-(4,5-Dihydro-3-Me-5-oxo-1-Phe-1H-pyrazol-4-ylazo)-3-naphthol-1-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	diox/w	30°C	75%	U		K(Mn+H2L=MnL+2H)=-9.8	1957SFb (99796)	2057
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C20H18N4O2 HL (5917)
 Pyruvic monohydrazone-3-hydrazino-4-benzyl-6-phenylpyridazine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	diox/w	30°C	75%	U		B2=13.61 K(Mn+HL)=4.16 K(Mn+2HL)=8.21 K(Mn+L+HL)=11.44	1985RSb (99837)	2058
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C20H19N3O3S HL CAS 380496-12-8 (9100)
 1,3-Di(3-ethylphenyl)-4,5,6-pyrimidinetrione-2-thio-5-oxime;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	diox/w	25°C	75%	U T H		K1=2.98 B2= 4.27	2001SSd (99874)	2059
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Medium: 75% v/v dioxan/H₂O, 0.10 NaClO₄. Data for 30 and 35 C.
 DH(B2)=-0.25 kJ mol⁻¹.

C20H19N3O3S HL CAS 380496-13-9 (9101)
 1,3-Di(4-ethylphenyl)-4,5,6-pyrimidinetrione-2-thio-5-oxime;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	diox/w	25°C	75%	U T H		K1=3.38	2001SSd (99883)	2060
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Medium: 75% v/v dioxan/H₂O, 0.10 NaClO₄. Data for 30 and 35 C.
 DH(K1)=-0.59 kJ mol⁻¹.

C20H20N4O2S L CAS 90012-52-5 (8482)
 3-(4-Tolyl)-1-phenylpyrazol-5-ylthiourea;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++	gl	alc/w	25°C	70%	U		K1=3.27 B2= 6.45	1995EEa (99895)	2061
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Medium: 70% v/v EtOH/H₂O, 0.10 M NaCl.

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	U		K1=14.78 K(Mn+HL)=9.98 K(Mn+H2L)=5.56	1967LMd (100011)	2062

C20H24O6 L DiBz-18-Crown-6 CAS 14187-32-7 (604)
2,3:11,12-Dibenzo-1,4,7,10,13,16-hexaoxacyclooctadeca-2,11-diene

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	con	mixed	25°C	90%	C		K1=2.69	2003ISa (100168)	2063

Medium: 90% v/v DMSO/H2O.

C20H36O6 L DiCy-18-crown-6 CAS 16069-36-6 (1653)
2,3:11,12-Dicyclohexyl-1,4,7,10,13,16-hexaoxacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	con	mixed	25°C	90%	C		K1=2.88	2003ISa (100669)	2064

Medium: 90% v/v DMSO/H2O.

Mn++	con	alc/w	25°C	40%	C		K1=2.82	2002ISa (100670)	2065
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Medium: 40% EtOH/H2O.

Mn++	con	alc/w	25°C	40%	C		K1=2.88	2001ISa (100671)	2066
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Medium: 40% v/v EtOH/H2O.

C20H39N5O2 HL CAS 333309-52-7 (8662)
16-Aminodocosahydro-16-methyl-dibenzo[b,i][1,4,8,11]tetraazacyclotetradecine-7-carb
oxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.5M	U		K1=8.45 K(MnL+H)=8.0 K(MnL=MnH-1L+H)=8.45	2002WHa (100770)	2067

Data for the trans isomer. For the cis-isomer K1=9.4, K(MnL+H)=7.35
K(MnL=MnH-1L+H)=9.8

C21H13N3O HL (6256)
1-(2'-Quinolylazo)-acenaphthylen-2-ol; C9H6N.N:N.C12H6.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	diox/w	30°C	75%	U	I	K1=5.95 B2=11.05	1979SGd (101014)	2068

C21H21N2O8Cl H2L Demeclocycline CAS 64-73-3 (5759)
7-Chloro-6-demethyltetracycline;

Also data for other tetracycline analogues.

C21H23NO6	HL	Colchicine	(7054)
Colchicine;			

C21H24N3O4SF HL CAS 215190-91-3 (9102)
6-Fluoro-7-(5-nonyl-1,3,4-oxadiazol-2-ylsulphanyl)-4-quinolone-3-carboxylic acid;

C21H24N4 L (931)
Tris((6-methyl-2-pyridyl)methyl)-amine; (CH3.C5H3N.CH2)3N

C21H26N4O4Br2 H2L CAS 354154-84-0 (8978)
N,N'-Bis-(2-(N"-2-hydroxy-5-bromobenzyl)aminoethyl)malondiamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	diox/w	25°C	13%	C			K1=6.02 B(MnHL)=15.22 B(MnH-2L)=-13.78	2001CLa (101285)	2073

Medium: 13% v/v dioxane/H₂O, 0.10 M KNO₃.

C21H30N4O8 H3L Tyr-Val-Asp-Ala (6015)
Tyrosyl-valyl-aspartyl-alanine

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	nmr	KCl	25°C	0.50M	U		K1=3.10 K(Mn+HL)=2.01 ?	1987ZAa (101367)	2074

C22H15N3O		HL		(6255)					
1-(4'-Methyl-2'-quinolyloxy)-acenaphthylen-2-ol; CH3.C9H5N.N:N.C12H6.OH									

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

Mn++	gl	diox/w	30°C	75%	U		K1=6.36 B2=12.09	1979SGd	(101522)2075

C22H21N7O3S		H2L		CAS 76313-93-4		(9224)			
4-Sulfamethazineazo-3-methyl-1-phenyl-2-pyrazolin-5-one;									

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

Mn++	gl	alc/w	35°C	40%	C T H		K1=9.08 B2=16.01	2004MUb	(101715)2076
Medium: 40% v/v EtOH/H2O, 0.10 M KCl. DH(K1)=27.4 kJ mol-1, DS(K1)=263 J K-1 mol-1; DH(K2)=26.4, DS(K2)=218. Also data for 25 and 45 C.									

C22H22N4O2		H2L		CAS 75651-32-0		(5318)			
N,N'-Bis(8-hydroxy-2-quinolylmethyl)ethylenediamine;									

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

Mn++	gl	diox/w	25°C	50%	U		K1=17.6 K(MnL+H)=6.20 K(Mn+HL)=12.4	1972HUa	(101733)2077
Medium: 50% v/v dioxan, 0.1 M KCl									

C22H23N2O8Cl		H2L		Aureomycin		CAS 56235-18-8		(3515)	
Chlorotetracycline;									

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

Mn++	gl	oth/un	20°C	0.01M	U		K1=4.3	1956ARd	(101762)2078

C22H24N2O8		H2L		Tetracycline		CAS 60-54-8		(2201)	
Tetracycline;									

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

Mn++	gl	NaCl04	25°C	0.10M	C			1996SJa	(101820)2079
B(MnHL)=4.60									

Mn++	gl	NaNO3	25°C	0.10M	C		K1=3.9	1992GAa	(101821)2080

Mn++	gl	oth/un	20°C	0.01M	U		K1=4.4	1956ARd	(101822)2081

C22H24N2O8		H4L		CAS 91044-25-6		(1921)			
rac-1,2-Diphenyl-1,2-diaminoethane-N,N,N',N'-tetraethanoic acid;									

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

Mn++ gl KNO3 20°C 0.10M U K1=15.10 1989SLa (101858)2082

C22H24N2O9 H2L Oxotetracycline CAS 79-57-2 (2202)
Oxytetracycline, 5-Hydroxy-tetracycline;

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

Mn++ gl oth/un 20°C .005M U K1=5.8 B2=10.60 1956ARd (101885)2083

C22H26N4O8 H4L (5526)
N,N'-Dipyridoxylethylenediamine-N,N'-diethanoic acid;

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

Mn++ gl NaCl 25°C 0.10M M K1=12.56 1988RSa (101964)2084
K(MnL+H)=8.74
K(MnHL+H)=7.90

C22H26N4O10 H4L BAPTA (7230)
1,2-Bis(o-aminophenoxy)ethane-N,N,N',N'-tetraethanoic acid;
(HOOCCCH2)2NCH(OC6H4NH2)2

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

Mn++ gl R4N.X 25°C 0.10M C K1=8.72 1993YTa (101981)2085

C22H32N4O14P2 H6L DPDP CAS 118248-91-2 (5896)
N,N'-Dipyridoxyldiaminoethane-N,N'-diethanoic acid 5,5'-diphosphoric acid;

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

Mn++ gl NaCl 25°C 0.10M C K1=15.10 1989RCa (102204)2086
K(MnL+H)=9.35
K(MnHL+H)=8.55
K(MnH2L+H)=6.41
K(MnH3L+H)=5.76

C23H18O3 L CAS 29549-01-7 (5321)
Ethyl alpha-(alpha-naphthyl)phenylpropiolylethanoate;

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

Mn++ gl diox/w 30°C 75% U K1=8.12 B2=15.00 1973AAa (102616)2087

C23H25N3O2 L CAS 132097-05-3 (6407)
4,5:12,13-Dibenzo-7,10,20-triaza-3,14-dioxabicyclo[14.3.1]eicosa-1(20),16,18-triene
;

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

Mn++ gl alc/w 25°C 95% U H K1=<4.0 1991BFa (102699)2088
Medium: 95% MeOH/H2O, 0.1 M Et4NC104. DH=10.75, DS=73.6

C23H27N2O8I H2L CAS 6602-90-0 (361)

4-Methyltetracycline Iodide;

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

Mn++ gl KNO3 25°C 0.10M U K1=4.00 B2=7.98 1979HFa (102719)2089

C23H30N4O4Br2 H2L CAS 354154-85-1 (8979)

N,N'-Bis-(3-N"-2-hydroxy-5-bromobenzyl)aminopropyl malondiamide;

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

Mn++ gl diox/w 25°C 13% C K1=6.41 2001CLa (102765)2090

B(MnHL)=15.50

B(MnH-2L)=-13.10

Medium: 13% v/v dioxane/H2O, 0.10 M KNO3.

C24H23N07S H3L (1980)

3-(N-Carboxymethyl)aminomethyl-o-cresolsulfonephthalein;

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

Mn++ gl KNO3 25°C 0.10M U K1=4.6 B2=7.70 1979Ymb (102929)2091

C24H27N3O2 L CAS 132097-06-4 (6408)

4,5:13,14-Dibenzo-7,11,21-triaza-3,15-dioxabicyclo[15.3.1]heneicosa-1(21),4,13,17,19-pentaene;

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

Mn++ gl alc/w 25°C 95% U K1=<4.0 1991BFa (102996)2092

Medium: 95% MeOH/H2O, 0.1 M Et4NC104

C24H32O8 L DiBz-24-Crown-8 CAS 14174-09-5 (580)

2,3:14,15-Dibenzo-1,4,7,10,13,16,19,22-octaoxacyclotetracos-2,14-diene;

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

Mn++ con mixed 25°C 90% C K1=1.85 2003ISa (103146)2093

Medium: 90% v/v DMSO/H2O.

C24H36N6 L CAS 240410-16-6 (8656)

N,N'-Bis[2-[(1-methylethyl)amino]ethyl]-1,10-phenanthroline-2,9-dimethanamine;

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

Mn++ gl NaNO3 25°C 0.10M C K1=7.32 1999SLa (103285)2094

B(MnHL)=15.34
B(MnH2L)=23.07

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

Mn++ EMF KCl 20°C 0.10M C K1=14.2 1981SFa (103381)2095
Method: Pt/H2 electrode.

C24H44O8 L Dicy-24-crown-8 CAS 17455-23-1 (2401)
2,3,14,15-Dicyclohexyl-1,4,7,10,13,16,19,22-octaoxacyclotetracosane;

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

Mn++ con mixed 25°C 90% C K1=1.98 2003ISa (103431)2096
Medium: 90% v/v DMSO/H2O.

C24H51OP L CAS 78-50-2 (4162)
Triocetylphosphine oxide; (C8H17)3P:O

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

Mn++ dis non-aq 20°C 100% U M 1974HHc (103543)2097
K(MnA2+L)=5.70
K(MnA2+2L)=10.80

A=thenoyltrifluoroacetone, (4,4,4-trifluoro-1-(2-thienyl)-1,3-butanedione)
Medium: cyclohexane

C25H28N4O10 L CAS 752-13-6 (2940)
Tetraacetylriboflavine;

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

Mn++ sp non-aq 38°C 100% U K1=1.6 1975LHa (103677)2098
Medium: acetone

C26H23N5O2 HL (5918)
Hippuric monohydrazone-3-hydrazino-4-benzyl-6-phenylpyridazine;

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

Mn++ gl diox/w 30°C 75% U K1=9.19 B2=16.97 1985RSb (103884)2099

C26H25N9O5 H4L Semi-Xylenol O (426)
3-(N,N-Di(carboxymethyl)aminomethyl)-2-cresolsulfonephthalein;

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

Mn++ gl KNO3 25°C 0.10M U K1=9.4 1981MUa (103946)2100

 C26H27N3O10 H4L (7231)
 2-((2-Amino-5-methylphenoxy)-methyl)-6-methoxy-8-aminoquinoline-N,N,N',N'-tetraetha
 noic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++ gl R4N.X 25°C 0.10M C K1=9.91 1993YTa (103967)2101

 C26H28N6 L CAS 16858-02-9 (933)
 N,N,N',N'-Tetrakis-(2-pyridylmethyl)-diaminoethane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++ dis non-aq 25°C 100% U 1997HIb (104006)2102
 $K(M+3L+2ClO4=ML3.2ClO4)=27.47$
 Method: extraction form 0.1 M NaClO4 into nitrobenzene.
 Reaction is: Mn(aq)+3L(org)+2ClO4(aq)=MnL3.2ClO4(org)

Mn++ gl KNO3 20°C 0.10M C H K1=10.27 1977AHc (104007)2103
 Calorimetry: DH1=-47.8 kJ mol⁻¹, DS1=32.6

Mn++ cal KNO3 20°C 0.10M U H K1=10.3 1970WAa (104008)2104
 DH=-47.6 kJ mol⁻¹, DS=33.4 J K⁻¹ mol⁻¹

 C26H34N6O8 H4L CAS 132709-65-0 (8941)
 3,6,14,17,23,24-Hexaazatricyclotetracos-1,8,10,12,19,21-hexaene-3,6,14,17-tetraace
 tic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++ gl KCl 25°C 0.10M M K1=15.1 1996MBb (104097)2105
 $K(MnL+H)=5.5$

 C26H38N6 L CAS 180684-75-7 (7295)
 1,8,14,17,24,31-Hexaazatricyclo[25.3.1.1.0.0]dotriaconta-10,12,14,26,28,

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++ gl KNO3 25°C 0.20M C K1=13 1996FJa (104208)2106

 C26H40N6 L CAS 240410-17-7 (8657)
 N,N'-Bis[2-(diethylamino)ethyl]-1,10-phenanthroline-2,9-dimethanamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mn++ gl NaNO3 25°C 0.10M C K1=5.34 1999SLa (104232)2107
 $B(MnHL)=14.07$
 $B(MnH2L)=22.18$

C26H42N6O2 H2L BDBPH CAS 226714-05-2 (7225)
13,27-Dimethyl-3,6,9,17,20,23-hexaazatricyclo[23.3.1]triacontahexaene-29,30-diol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	gl	KCl	25°C	0.10M	C	M			2001GMa (104262)	2108
								B(MnH-1L)=-0.84 B(Mn2L)=19.57 B(CuMnL)=39.63 B(CuMnH-1L)=28.97		

B(CuMnH-2L)=18.37.

Mn++	gl	NaCl	25°C	0.10M	C			K1=11.58 K(MnL+H)=10.65 K(MnHL+H)=9.96 K(MnH2L+H)=6.43 *K(MnL)=-12.42	2000SMi (104263)	2109
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*K(MnH-1L)=-10.74, K(MnL+Mn)=7.99, *K(Mn2L)=-10.76, *K(Mn2H-1L)=-13.83,
K(Mn2L+H)=5.10.

C27H33N9O15P2 H2L FAD CAS 146-14-5 (3521)
Flavin adenine dinucleotide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	ix	NaCl	23°C	0.1M	U			K1=2.39	1958WAa (104546)	2110

C27H38N6O12 H4L DGYVDA (6016)
Aspartyl-glycyl-tyrosyl-valyl-aspartyl-alanine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	nmr	KCl	25°C	0.50M	U				1987ZAa (104585)	2111
								K(Mn+HL)=3.08 ? K(Mn+H2L)=2.04 ?		

C28H22N2O8S2 H2L CAS 4403-90-1 (2911)
1,4-Di(4-methylanilino)anthraquinone; (Alizarin cyanin green)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++	sp	oth/un	25°C	?	U			K1=4.2 B2=9.34	1978ISb (104664)	2112

C30H50N6O2 L CAS 380446-61-7 (8002)
3,7,11,19,23,27-Hexaaza-33,34-dihydroxy-15,31-dimethyltricyclotetratritriaconta-1,13,15,17,29,30-hex

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K	values	Reference	ExptNo
Mn++	EMF	oth/un	var	var	U					1963LCc (106035)	2118
									K(MnL+H)=6.9 K(MnLOH+H)=12.8		

C34H46N4O14 H2L CAS 226947-33-7 (8530)
N,N'-Bis[(benzo-15-crown-5)-oylmethyl]diaminoglyoxime;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	mixed	25°C	60%	U		K1=9.53 B(MnHL)=19.43 B(MnH2L2)=26.53 B(MnH-1L)=-0.50	1999ADd (106077)	2119

Medium: 60% v/v acetone/H2O, 0.20 M KNO3.

C34H54O8 H2L Lasalocid CAS 25999-20-6 (2335)
Lasalocid acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	cal	alc/w	25°C	100%	U T H			1990PJa (106146)	2120

Medium: MeOH. DG(K1)=-26.3 kJ mol⁻¹, DH=23.4; DG(B2)=-44.0; DH=30

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	25°C	100%	M		K1=4.6 B2=7.7	1988LTa (106147)	2121

Medium: MeOH

C36H60N8O8 L CAS 121925-84-6 (7152)
Cyclo(Gly-eLL-Gly)2 (eLL=N,N'-ethylene-bridged (S)-leucyl-(S)-leucine

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	sp	non-aq	25°C	100%	U		K1=3.87	1994MKa (106456)	2122

Medium: MeCN

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
Mn++	gl	KNO3	30°C	0.0	U T H		K1=7.82	1978SSj (106613)	2123

Extrapolated from data for I=0.1-1.0 M KNO3. Data for 40 C.
DH(K1)=-22 kJ mol⁻¹, DS(K1)=77.8 J K⁻¹ mol⁻¹.

C43H58N4O12 H3L Rifampicin CAS 13292-46-1 (8977)
3-[[[(4-Methyl-1-piperazinyl)imino]methyl]rifamycin;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	alc/w	30°C	50%	C T H		K(Mn+H2L)=6.71 K(MnH2L+H2L)=5.22	2001SKd (107020)	2124

Medium: 50% v/v MeOH/H2O, 0.05 M KCl. DH(Mn+H2L)=-48.26 kJ mol⁻¹, DS=-31.0 J K⁻¹ mol⁻¹; DH(MnH2L+H2L)=-39.03, DS=-29.0. Also data for 35 and 40 C.

C44H30N4 H2L Tetraphenylpor. CAS 917-23-7 (1781)
5,10,15,20-Tetraphenyl-21H,23H-porphine;

Medium: acetonitrile

C48H38N4 H2L CAS 14527-51-6 (1780)
5,10,15,20-Tetrakis-(4-methylphenyl)-21H,23H-porphine;

Medium:toluene. -40 to 40 C. K=-0.229(-40C); -0.180(-20C); 0.0086(0C); 0.134 (40C). H2A:Octaethylporphyrin. DH=8.4 kJ mol⁻¹; DS=30. N=nitride + others

C69H102N4O9 L CAS 116352-85-3 (9286)
para-t-Butyldihomooxacalix[4]arene tetra(diethyl)amide;

Polymer	Albumin	(3526)
Albumin;		

$$K' = 3.52 (2\text{nd}-6\text{th Mn}^{++} \text{ bound})$$

Medium: Me_4NCl . K' is the average for binding of 2nd to 6th Mn^{++} .

See reference for definitions

Polymer	CPA	CAS 11075-17-5	(1758)
Carboxypeptidase A			

Medium: 0.05 M tris buffer pH 8

Polymer HL (2215)
Deoxyribonuclease;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	con	none	25°C	0.0	U		K1=5.1	1980WHa (108120)	2130
pH 8. Protein from bovine pancreas *****									
Polymer				DNA			(4185)		
Deoxyribonucleic acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	nmr	NaCl	25°C	0.01M	C		K1eff=5.52	2000CCb (108150)	2131
Method: 23 Na nmr, using calf thymus Na-DNA. K1eff at pH 6.0.									
Mn++	ix	NaCl	25°C	0.15M	U		K'=2.44(calf thymus)	1957WNa (108151)	2132
See reference for definition *****									
Polymer				Enolase			CAS 9014-08-8	(4186)	
Enolase;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	nmr	oth/un	20°C	0.50M	U		K'=5.0(yeast)	1963C0a (108165)	2133
Medium: 0.5 M KCl, 0.05 Tris.HCl. See reference for definition *****									
Polymer				Gelatin			(4187)		
Gelatin									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	oth	none	24°C	0.0	C T		K1eff=4.38	2001THa (108196)	2134
Method: fluorescence quenching. Medium: pH 10.0. At 32 C, K1eff=4.48. *****									
Polymer							(5382)		
Polyacroleinoxime;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn++	gl	KNO3	25°C	0.10M	U		B2=11.6	1971MKb (108299)	2135

Polymer							(4195)		
Polyethylene and maleic anhydridecopolymer (1:1)									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

Mn++ gl oth/un 25°C 0.0 U 1968BHd (108334)2136
K'=8.81

Polymer (6896)
Polymaleic acid-methacrylic acid copolymer; (-C4H2O3.CH2.C(CH3)COOH-)n

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

Mn++ dis NaCl 25°C 0.10M U 1993KHa (108349)2137
K1eff=5.3

Method: dialysis; pH=8 [Mn]=0.00005 M

Polymer (1642)
Polymethacrylic acid;

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

Mn++ vlt KNO3 25°C 0.01M U I 1996CAa (108377)2138
K1eff=4.39

Method: differential pulse polarography. Also K1eff=4.70 (I=0.005 M),
and 4.00 (I=0.02).

Polymer (4203)
Procarboxypeptidase;

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

Mn++ oth NaCl 4°C 1.0M U K1=3.4 1967PVa (108398)2139
Method: dialysis

Polymer (4204)
Pyruvate kinase;

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

Mn++ sp R4N.X 25°C 0.10M U 1966SSc (108404)2140
K'=4.0

Medium: Me4NCl. See reference for definition

Mn++ nmr oth/un 27°C 0.10M U T 1965MCc (108405)2141
K'=4.1

Medium: 0.1 M KCl, 0.02 Tris. By kinetics: K'=4.2(29 C)

Mn++ nmr oth/un 20°C 0.50M U 1963COa (108406)2142
K'=4.2

Medium: 0.5 M KCl, 0.05 Tris

Mn++ sp oth/un 25°C 0.10M U 1963SMb (108407)2143
K'=4.16

Medium: 0.1 M KCl, 0.05 Tris

e- HL Electron (442)
Electron;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn+++	EMF	none	25?°C	0.00	U				1970TTa	(658)2144
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K=9.0(0.53V,X=Zn++)

K: XMn(III)W11040H2 n- + e=XMn(II)W11040H2 (n+1)-; data also for various X
(K=7.3(0.43V,X=B(III), 11.0(0.65V,X=Si(IV))

Mn+++	EMF	none	25?°C	0.00	U				1970TTa	(659)2145
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K=13.7(0.81V,X=Ge(IV))

K: XMn(III)W11040H2 n- + e=XMn(II)W11040H2 (n+1)-; data also for X=P(V)
K=14.9(0.88V,X=P(V))

Mn+++	EMF	none	25?°C	0.00	U				1970TTa	(660)2146
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K=11.7(0.69V,X=P(V))

K: X2Mn(III)W17062H2 (7-) + e=X2Mn(II)W17062H2 (8-); data also for X=As(V)
(K=13.5(0.80V,X=As(V))

Mn+++	EMF	NaCl04	25°C	3.00M	U				1969CGa	(661)2147
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K(Mn+++ + e)=26.057(1541.5mV)

Medium: HCl04

Mn+++	oth	none	25°C	0.0	U				1952LAb	(662)2148
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K=2.6(100 mV)

K: Mn(OH)3(s)+e=Mn(OH)2(s)+OH. From thermodynamic data

Mn+++	oth	none	25°C	0.0	U				1952RWa	(663)2149
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K=31.12

K: Mn(OH)3(s) + 3H + e = Mn++ + 3H2O

Mn+++	EMF	oth/un	25°C	1.50M	U				1952TRa	(664)2150
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K=-4.12(-244 mV)

Medium NaCN. K: Mn(CN)6+e=Mn(II)(CN)6

Mn+++	sp	KCl	25°C	10.1M	U T				1950IDa	(665)2151
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K=0.72

Medium: HCl. K: Mn+Cl=Mn(II)+1/2Cl2. At 0 C: K=0.48

Mn+++	EMF	oth/un	25°C	7.50M	U				1950VMa	(666)2152
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K(Mn+e=Mn(II))=25.15(1488 mV)

Medium: H2SO4

Mn+++	EMF	oth/un	18°C	var	U				1927GBa	(667)2153
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K=-4.23(-244 mV)

Medium: KCN. K: Mn(CN)6+e=Mn(II)(CN)6

Mn+++	EMF	oth/un	12°C	7.50M	U				1923GHa	(668)2154
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K(Mn+e=Mn(II))=26.7(1511 mV)

Medium: H2SO4

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

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

Mn+++ sp non-aq 25°C 100% U M 1991LMb (2133)2155

K=1.68

Medium(S): CH2Cl2. K:a2-P2W17O61MnS+L=a2-P2W17O61MnL+S.

CN- HL Cyanide CAS 74-90-8 (230)
Cyanide;

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

Mn+++ oth oth/un 18°C var U 1913MEa (2740)2156

K=9.70

Method: chemical analysis. K: K(MnOOH(s)+3CN+3HCN=Mn(CN)6+2H2O)

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

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

Mn+++ sp NaClO4 25°C 7.10M U I K1=3.04 1980TGa (5233)2157

Mn+++ sp oth/un 25°C 3.26M U K1=1.12 B2=1.16 1974RNA (5234)2158
Medium: HClO4/Mn(ClO4)2

Mn+++ kin NaClO4 25°C 2.0M U K1=0.95 1948TAa (5235)2159

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

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

Mn+++ con non-aq 25°C 100% U 1993DVA (6325)2160

Kout(Mn(dmso)6+L)=2.70

Kout(Mn(dmso)6L+L)=1.90

Kout(Mn(urea)6+L)=2.15

Kout(Mn(urea)6L+L)=1.56

Medium(S): acetonitrile.

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

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

Mn+++ EMF NaClO4 25°C 3.00M U K1=2.6 B2=4.42 1981CCb (7023)2161
B3=4.95

Mn+++ sp NaClO4 25°C 6.0M U 1969DIb (7024)2162
K(Mn+HF=MnF+H)=2.88

Medium: HClO4

Mn+++ sp NaClO4 23°C 5.35M U 1969DKa (7025)2163
K(Mn+HF=MnF+H)=2.20
K(MnOH+HF=MnOHF+H)=2.28

Medium: HClO4

Mn+++ sp NaClO4 23°C 5.30M U I 1964FCa (7026)2164
K(Mn+HF=MnF+H)=2.4

Medium: HClO4. *K1=2.7(I=6.1)

Mn+++ kin NaClO4 25°C 2.0M U 1948TAa (7027)2165
*K1=2.51

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

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

Mn+++ kin NaNO3 30°C 0.10M U 1996KBa (9388)2166
Kout(Mn2O2(A)4+NO2)=1.15
Kout(Mn2O2(A)4+2NO2)=2.85
K(Mn2O2(A)4+H=Mn2O2A3+HA)=1.54

Mn2O2A4 is oxygen-bridged Mn(III)Mn(IV)(O2)(phen)4.

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

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

Mn+++ kin NaClO4 25°C 3.80M U 1969DKb (10242)2167
K(Mn+HL=MnL+H)=1.85

By spectrophotometry K=1.95

Mn+++ sp NaClO4 25°C 0.25M U M 1967SHb (10243)2168
K(Mn(EDTA)+L)=1.51

OH- HL Hydroxide (57)
Hydroxide;

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

Mn+++ sp oth/un 25°C 0.01M U 1998RNb (11743)2169
*K(MnP(H2O)2)=-8.0
*K(MnP(OH)(H2O))=-10.6

MnP: (meso-tetrakis(1-methyl-4-pyridinium)porphyrinato)Mn(III)

Medium: 0.01 M buffer.

Mn+++ oth NaNO3 25°C 1.00M U K1=12.5 B2=24.0 1987NSa (11744)2170
B3=35.6

Mn+++ EMF NaClO4 25°C 3.00M C 1978BPa (11745)2171
*K1=0.4
*B2=0.1

Eo(e + Mn+++)=0.1559 V

Mn+++ EMF NaClO4 25°C 5.60M U 1974RNa (11746)2172
*K1=0.02

Mn+++ sp NaClO4 23°C 4.00M U 1973GTb (11747)2173
*K1=-0.02

Mn+++ kin NaNO3 25°C 1.90M U 1969DKc (11748)2174
*K1=0.04

Medium: NaNO3 or NaClO4 at I=1.9-4.2 M

Mn+++ kin NaClO4 12°C 3.00M U H 1968RNa (11749)2175
*K1=-0.20

DH(*K1)=20.1 kJ mol⁻¹

Mn+++ sp NaClO4 25°C 4.00M U H 1967WDa (11750)2176
*K1=-0.03

Medium: 4 M Mn(ClO4)2. DH(*K1)=20.1 kJ mol⁻¹. DS=65.6 J K⁻¹ mol⁻¹

Mn+++ sp NaClO4 25°C 4.00M U T H 1965WDa (11751)2177
*K1=-0.06

Medium: 4M (Mn,H)ClO4. DH(*K1)=20.0 kJ mol⁻¹, DS=65 J K⁻¹ mol⁻¹

Mn+++ sp NaClO4 23°C 6.00M U 1964DSb (11752)2178
*K1=0.6

Mn+++ sp NaClO4 23°C 5.0M U 1964FCa (11753)2179
*K1=0.2

Medium: 5-6 M HClO4

P04--- H3L Phosphate CAS 7664-38-2 (176)

Phosphate;

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

Mn+++ EMF NaClO4 25°C 3.00M C 1981CPa (13248)2180
K(Mn+H3L=MnHL+2H)=1.5
K(Mn+H3L=MnH2L+H)=1.3
K(Mn+2H3L=MnH4L2+2H)=2.9

P207---- H4L Pyrophosphate CAS 2466-09-3 (198)
Diphosphate; from (HO)2PO.O.PO(OH)2

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

Mn+++ EMF oth/un 25°C 3.0M C 1983CPb (13621)2181
K(Mn+H4L=MnH2L+2H)=4.86
K(Mn+H4L=MnHL+3H)=4.2
K(Mn+2H4L=MnH4L2+4H)=6.54
K(Mn+2H4L=MnH5L2+3H)=6.76

Mn+++ EMF oth/un 25°C 3.0M C 1983CPf (13622)2182
K(Mn+H4P207=MnH2P207+2H)=4.86
K(Mn+H4P207=MnHP207+3H)=4.2

Medium: 3.0 M (Li,H)ClO4. Method: Ir/Mn(III),Mn(II) electrode.
K(Mn+2H4P207=MnH4(P207)2+4H)=6.54, K(Mn+2H4P207=MnH5(P207)2+3H)=6.76

Mn+++ sp NaClO4 20°C 1.80M U 1972BPd (13623)2183
K(Mn+H2L)=9.0

Medium: HClO4

Mn+++ vlt NaClO4 25°C 0.34M U K1=16.7 B2=30.9 1970GSg (13624)2184
K(Mn+H2L)=5.1
K(Mn+2H2L)=8.4
K(Mn+3H2L)=11.2

S03-- H2L Sulfite CAS 7782-99-2 (801)
Sulfite;

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

Mn+++ kin NaClO4 30°C 1.00M U 1993MBa (15467)2185
Kout(MnA2(H2O)2+HL)=1.48
Kout(MnA2(H2O)2+L)=2.00

HA=acetylacetone.

S04-- H2L Sulfate CAS 7664-93-9 (15)
Sulfate;

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

Mn+++ sp NaClO4 23°C 2.70M U I 1973GTb (16354)2186
K(Mn+HL)=0.08

Medium:(Na,H)ClO4. K(Mn+HL)=0.21(I=4.3), 0.27(I=5), 0.40(I=6.6), 0.57(I=8.2)

CH4N2O L Urea CAS 57-13-6 (2018)
Carbamide, Urea; (H2N)2CO

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

Mn+++ nmr non-aq 25°C 100% U 1993DVa (17722)2187
 $K(\text{MnL6+S}=\text{MnL5S+L})=-3.72$
 $K(\text{MnL6+2S}=\text{MnL4S2+2L})=-6.55$
 $K(\text{MnL6+3S}=\text{MnL3S3+3L})=-14.78$

Medium(S): acetonitrile.

CH4O L Methyl alcohol CAS 67-56-1 (597)
 Methanol; CH3.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn+++ sp non-aq 25°C 100% U M 1981IKa (17885)2188
 $K(\text{MnClA2+L})=0.13$

Medium: dichloromethane. HA=acetylacetone. Also for HA=benzoylacetone

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
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Mn+++ kin NaClO4 25°C 2.0M U K1=9.98 B2=16.57 1948TAa (18964)2189
 K3=2.85

Medium:HClO4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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 Mn+++ sp oth/un 0°C 0.0 U 1936CEa (18965)2190
 K3=2.42

C2H6OS L DMSO CAS 67-68-5 (329)
 Dimethylsulfoxide; (CH3)2.SO

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn+++ nmr non-aq 25°C 100% U 1993DVa (22109)2191
 $K(\text{MnL6+S}=\text{MnL5S+L})=-3.23$
 $K(\text{MnL6+2S}=\text{MnL4S2+2L})=-6.27$
 $K(\text{MnL6+3S}=\text{MnL3S3+3L})=-11.29$

Medium(S): acetonitrile.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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 Mn+++ sp non-aq 21°C 100% U M 1983LKa (22110)2192
 $K(\text{MnA+L})=3.49$
 $K(\text{MnA+2L})=5.74$

Medium: C2H4Cl2. A=tetraphenylporphin

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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 Mn+++ sp non-aq 25°C 100% U M 1981IKa (22111)2193
 $K(\text{MnClA2+L})=1.45$

Medium: dichloromethane. HA=acetylacetone

C3H4N2 L Imidazole CAS 288-32-4 (90)
 1,3-Diazole, imidazole; C3H4N2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn+++	kin	NaNO3	30°C	0.20M	U	M		1991ABd (23911)	2194
							K(MnPA2+HL=MnPA(HL)+A)=2.43 K(MnP(OH)L+H=MnP(OH)(HL))=11.3		
A=H2O or OH. P:meso-tetrakis(2,6-dimethyl-3-sulfonatophenyl)porphyrin.									

Mn+++	sp	non-aq	21°C	100%	U	M		1983LKa (23912)	2195
							K(MnA+L)=4.35 K(MnA+2L)=7.45		

Medium: C2H4Cl2. A=tetraphenylporphin

C3H7NO	L	DMF	CAS 68-12-2	(598)
N,N-Dimethylformamide; HCO.N(CH3)2				

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn+++	sp	non-aq	25°C	100%	U	M		1981IKa (25663)	2196
							K(MnClA2+L)=1.00		

Medium: dichloromethane. HA=acetylacetone

C4H6N2	L	N-Me-Imidazole	CAS 616-47-7	(354)
N-Methyl-1,3-diazole; C3H3N2.CH3				

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn+++	sp	non-aq	25°C	100%	U	M		1991LMb (29604)	2197
							K=3.56		

Medium S): CH2Cl2. K:a2-P2W17O61MnS+L=a2-P2W17O61MnL+S.

C4H11NO8P2	H5L		CAS 2439-99-8	(2129)
N-Carboxymethyl-N,N-bis(methylenephosphonic acid); HOOCH2.N(CH2.PO3H2)2				

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn+++	sp	NaClO4	20°C	1.00M	U		K1=12.46	1978KPb (35114)	2198

C5H5N	L	Pyridine	CAS 110-86-1	(31)
Pyridine, Azine;				

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mn+++	sp	non-aq	25°C	100%	U	M		1991LMb (36656)	2199
							K=3.61		

Medium(S): CH2Cl2. K:a2-P2W17O61MnS+L=a2-P2W17O61MnL+S.

Mn+++	sp	non-aq	21°C	100%	U	M		1983LKa (36657)	2200
							K(MnA+L)=4.08 K(MnA+2L)=6.99		

Medium: C2H4Cl2. A=tetraphenylporphin

Mn+++ sp non-aq 25°C 100% U M 1981IKa (36658)2201
K(MnClA2+L)=2.01

Medium: dichloromethane. HA=acetylacetone

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

Mn+++ gl oth/un 25°C 0.20M U 1951CAa (38029)2202

K3=3.86

C6H9NO6 H3L NTA CAS 139-13-9 (191)

Nitrilotriethanoic acid; N(CH2.COOH)3

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

Mn+++ sp NaClO4 ? 1.00M U K1=20.25 1971BPh (46921)2203

C6H11NO5 H2L HIMDA CAS 93-62-9 (192)

N-(2-Hydroxyethyl)iminodiethanoic acid; HO.CH2.CH2.N(CH2.COOH)2

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

Mn+++ sp NaClO4 ? 1.00M U M 1973BPb (48763)2204

K(MnH2P207+L)=6.80

C6H20N2O12P4 H8L EDTPA CAS 1429-50-1 (434)

Ethane-1,2-bis(iminobis(methylenephosphonic acid)); ((H2O3PCH2)2NCH2.)2

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

Mn+++ gl oth/un 25°C 0.10M U K1=9.75 1956WMe (52353)2205

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

Mn+++ EMF NaClO4 20°C 1.50M U K1=4.3 B2=9.6 1990IAa (69623)2206

B3=15.3

Medium: LiClO4

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

Mn+++ sp oth/un ? dil U K1=5.3 1963MRb (69959)2207

C10H12N4O6 H2L Xanthosine CAS 5968-90-1 (1176)
3,9-Dihydro-9-ribofuranosyl-1H-purine-2,6-dione;

$K(\text{Mn}+\text{HL}+\text{B})=8.70$. H_2A is catechol, H_2B is oxalic acid.

C10H16N2O8	H4L	EDTA	CAS 60-00-4 (120)
1,2-Diaminoethane-N,N,N',N'-tetraethanoic acid, Sequesteric acid;			

Mn+++ sp oth/un ? 0.10M U 1962Y0a (73969)2215
K(Mn(OH)L+H)=5.3

C10H18N2O7	H3L	HEDTA	CAS 150-39-0	(392)
N-(Hydroxyethyl)diaminoethane-N,N',N'-triethanoic acid;				

C11H11NO2 HL CAS 7545-59-7 (4830)
8-Hydroxy-5-methoxymethylquinoline;

Mn+++ vlt mixed ? 50% U K1=39.35 1970CVa (77770)2218

Medium: 50% DMF, 1 M NaClO4

C12H8N2 L Phenanthroline CAS 66-71-7 (144)

1,10-Phenanthroline;

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

Mn+++ EMF NaClO4 20°C 1.50M U K1=5.5 B2=20.7 1990IAa (80496)2219

Medium: LiClO4

C12H20N2O9 H4L EDTA CAS 923-73-9 (2112)

Oxa-bis(ethyleneimino)diethanoic acid; ((HOOC.CH2)2N.CH2.CH2)2O

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

Mn+++ sp oth/un 19°C ? U K1=17.18 1971MAk (82552)2220

K(Mn+HL)=10.04

C13H10N2O2Br H2L (1385)

2'-Hydroxy-5'-bromobenzophenone oxime; Br(HO)C6H3.C(:NOH)C6H5

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

Mn+++ gl diox/w 30°C 50% U K1=5.09 1982UVa (84691)2221

C13H11NO3 H2L CAS 55260-17-8 (9214)

N-2-Hydroxy-1-naphthalideneglycine;

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

Mn+++ gl mixed 25°C 50% C K1=13.23 B2=18.73 2004DSa (85203)2222

Medium: 50% v/v DMSO/H2O, 0.10 M NaCl.

C13H11N2O3F3 HL (5563)

3-(2-Acetylphenylhydrazone)-1,1,1-trifluoropentane-2,4-dione;

CF3.CO.C(CO.CH3):N.HN.C6H4.COCH3

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

Mn+++ gl diox/w 25°C 75% U K1=6.10 B2=10.90 1990ASb (85250)2223

C13H14N2O L CAS 87413-05-6 (6300)

1-Benzyl-1,4-dihydronicotinamide;

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

Mn+++ sp non-aq 25°C 100% U 1989FKb (85580)2224

K(MnP+L)=2.40

K(MnP+L+L)=1.93

Medium: CH₂Cl₂. MnP=tetraphenylporphyrinatomanganese(III) perchlorate

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

Mn+++ gl diox/w 25°C 75% U K1=7.75 B2=12.75 1990ASb (85613)2225

C14H13NO2 H2L (1387)

2'-Hydroxy-5'-methylbenzophenone oxime; HO(CH₃)C₆H₃.C(:NOH)C₆H₅

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

Mn+++ gl diox/w 30°C 50% U K1=6.28 1982UVa (87391)2226

C14H13NO3 H2L CAS 41084-64-4 (9215)

N-[(2-Hydroxy-1-naphthalenyl)methylene]-alanine;

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

Mn+++ gl mixed 25°C 50% C K1=13.99 B2=19.20 2004DSa (87567)2227

Medium: 50% v/v DMSO/H₂O, 0.10 M NaCl.

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

Mn+++ kin NaClO₄ 25°C 0.20M U 1994GAa (88722)2228

*K(MnL)=-7.90

Mn+++ sp NaClO₄ 25°C 0.20M U K1=28.9 1967HSa (88723)2229

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

Mn+++ sp NaClO₄ ? 1.0M U K1=31.06 1971BPh (89323)2230

Mn+++ sp oth/un 20°C dil U K1=19.35 1971MAn (89324)2231

K(Mn+H₂L)=5.36

K(Mn+H₃L)=3.70

C15H11N3 L CAS 1148-79-4 (488)

2,2':6'2"-Terpyridine; C₅H₄N.C₅H₃N.C₅H₄N

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

Mn+++ gl oth/un 25°C 2.00M U K1=12.35 B2=19.69 1992IAa (91163)2232

C15H14O3 HL CAS 84-79-7 (3446)
2-Hydroxy-3-(3-methylbut-2-enyl)-1,4-naphthoquinone;

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

Mn+++ vlt R4N.X 25°C 0.10M U K1=15.25 1989BAb (91773)2233
Medium: (CH3CH2)4NClO4

C15H15NO4 H2L CAS 162127-15-3 (9217)
N-[(2-Hydroxy-1-naphthalenyl)methylene]-threonine;

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

Mn+++ gl mixed 25°C 50% C K1=15.45 B2=20.62 2004DSa (91873)2234
Medium: 50% v/v DMSO/H2O, 0.10 M NaCl.

C16H12N2 L (6848)
6-Phenyl-2,2'-bipyridyl;

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

Mn+++ gl oth/un 25°C 2.00M U K1=6.30 B2=11.25 1992IAa (92908)2235
K3=3.62

C16H17NO3S H2L CAS 162127-16-4 (9218)
N-[(2-Hydroxy-1-naphthalenyl)methylene]-methionine;

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

Mn+++ gl mixed 25°C 50% C K1=6.68 B2= 9.50 2004DSa (93730)2236
Medium: 50% v/v DMSO/H2O, 0.10 M NaCl.

C16H18N2O3 HL (5564)
2-(2-Acetylphenylhydrazone)-5,5-dimethyl-1,3-cyclohexanedione;

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

Mn+++ gl diox/w 25°C 75% U K1=6.80 B2=10.77 1990ASb (93782)2237

C18H15P L CAS 603-35-0 (621)
Triphenylphosphine; (C6H5)3P

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

Mn+++ sp non-aq 25°C 100% U M 1991LMb (97142)2238
K=0.78

Medium(S): CH2Cl2. K:a2-P2W17O61MnS+L=a2-P2W17O61MnL+S.

C18H16N2O3 HL (5560)
2-(2-Acetylphenylhydrazone)-1-phenyl-but-1,3-dione;
C6H5.CO.C(CO.CH3):N.NH.C6H4.COCH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn+++	gl	diox/w	25°C	75%	U			K1=7.60 B2=11.52	1990ASb (97175)	2239

C18H20N2O6 H4L EHPG CAS 10328-28-6 (429)
N,N'-Ethylene-bis-(2-(2'-hydroxyphenyl))glycine; (H00CCH(C6H4OH)NHCH2.)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn+++	sp	NaCl	25°C	1.0M	U				1990ADb (97436)	2240

K(Mn(OH)L+H)=9.3

K(MnL+H) is about 3

C20H17NO3 H2L CAS 162127-28-8 (9216)
N-[(2-Hydroxy-1-naphthalenyl)methylene]-phenylalanine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn+++	gl	mixed	25°C	50%	C			K1=12.32 B2=15.43	2004DSa (99818)	2241

Medium: 50% v/v DMSO/H2O, 0.10 M NaCl.

C20H24N2O6 H4L (6591)
Diaminoethanebis(2-hydroxy-4-methyl-phenyl)ethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn+++	sp	NaCl	25°C	1.0M	U				1990ADb (99963)	2242

K(Mn(OH)L+H)=9.2
K(MnL+H)=1.9

Data listed refer to meso-form of L
For racemic form: K(Mn(OH)L+H)=9.1;K(MnL+H)=2.5

C21H26N2O6 H4L BHTDA CAS I4 (6592)
N,N'-Bis(2-hydroxybenzyl-trimethylenedinitrilo-N,N'-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn+++	sp	NaCl	25°C	1.0M	U				1990ADb (101277)	2243

K(Mn(OH)L+H)=9.5

K(MnL+H) is about 3

C23H18N2O3 HL (5561)
2-(2-Acetylphenylhydrazone)-1,3-diphenyl-prop-1,3-dione;
C6H5.CO.C(CO.C6H5):N.NH.C6H4.COCH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mn+++ gl diox/w 25°C 75% U K1=7.18 B2=11.58 1990ASb (102598)2244

C34H38N4O6 H4L (3525)

Haematoporphyrin IX;

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

Mn+++ EMF oth/un var var U 1963LCc (106036)2245

K(MnLOH+H)=12.0

e- HL Electron (442)

Electron;

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

Mn++++ EMF none 25°C 0.00 U 1969ACa (669)2246

K=41.6(1.231V) to 42.1(1.244V)

K: beta-MnO2(s)+4H+ + 2e=Mn++ + 2H2O. K=40.43(1.196V, highly crystalline)

Mn++++ EMF none 18°C 0.0 U 1967LIa (670)2247

K(Mn+2e=Mn(II))=52.3 (1510 mV)

Extrapolation from 1.5 M HCl

Mn++++ EMF none 25°C 0.0 U 1962CCa (671)2248

K=41.7 to 42.0(1233 to 1241mV)

K: beta-MnO2(s)+4H+2e=Mn(II)+2H2O

Mn++++ EMF none 25°C 0.0 U 1959GBa (672)2249

K=40.84(gamma-MnO2;1208 mV)

K: MnO2(s)+4H+2e=Mn(II)+2H2O

Mn++++ sp oth/un 25°C 7.0M U I 1959SLa (673)2250

K(Mn(IV)+Mn(II)=2Mn(III))=4

Medium: H2SO4. In 4 M H2SO4: K=3

Mn++++ EMF none 25°C 0.0 U 1954MTa (674)2251

K=41.25(beta-MnO2;1220 mV)

K: MnO2(s)+4H+2e=Mn(II)+2H2O. Data also for alpha-, gamma, and delta-MnO2:

K=42 to 44(1250 to 1300 mV)

Mn++++ EMF oth/un 25°C 7.50M U 1950VMa (675)2252

K(Mn+e=Mn(III))=27.93(1652 mV)

Medium: H2SO4

Mn++++ EMF none 25°C 0.0 U 1949WWa (676)2253

K=41.55(1229 mV)

K: MnO2(s)+4H+2e=Mn(II)+2H2O

Mn++++ EMF none 25°C 0.0 U 1947HUa (677)2254

K=41.60(1230 mV)

K: $\text{MnO}_2(\text{s}) + 4\text{H} + 2\text{e} = \text{Mn}(\text{II}) + 2\text{H}_2\text{O}$

Mn++++ EMF oth/un 12°C 7.50M U 1923GHa (678)2255
K(Mn+e=Mn(III))=29.0(1642 mV)

Medium: H₂SO₄

Mn++++ EMF oth/un 18°C 8.0M U I 1912STa (679)2256
K=15.27(441 mV)

Medium: KOH. K: $\text{Mn}(\text{VI}) + 2\text{e} = \text{Mn}(\text{IV})(\text{s})$. At I=0 K($\text{MnO}_4 + 2\text{H}_2\text{O} + 2\text{e} = \text{MnO}_2(\text{s}) + 4\text{OH}$)=17.7 (510 mV)

I04- HL Periodate CAS 13444-71-8 (6063)
Periodate;

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

Mn++++ gl oth/un ? dil U 1961LIa (8609)2257
Successive $K_a(\text{H}_9\text{Mn}(\text{IO}_6)_3) = -2.75, -4.35, -5.45?, -9.55?, -10.45?$
By kinetics, 35 C, $K(\text{MnL}_2(\text{OH})_3 + 2\text{OH} + \text{L} = \text{MnL}_3(\text{OH})_5) = 8.7$

Te04-- H2L Tellurate (5750)
Tellurate(VI); Te04-- or Te02(OH)4--

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

Mn++++ sp oth/un ? var U 1971IIa (17310)2258
B4=14.6

Mn++++ sol oth/un var dil U 1971IIb (17311)2259
Kso=ca.-13.2 (26-80 C)

Mn++++ sp oth/un 25°C var U 1962LYa (17312)2260
 $K(\text{MnL}_3(\text{OH})_5 = \text{MnL}_2(\text{OH})_4 + \text{L} + \text{OH}) = -4.4$

Mn++++ kin oth/un 25°C 0.10M U 1961LIa (17313)2261
 $K_{\text{eff}} = 3.37$ (0.1 M NaOH)
 $K(\text{MnL}_2 + \text{L} + \text{OH} = \text{MnL}_3\text{OH}) = 4.37$

Medium: NaOH. By pH $K(\text{H}_{13}\text{Mn}(\text{TeO}_6)_3 + \text{H}) = 2.2$, $K(\text{H}_{12}(\text{TeO}_6)_3 + \text{H}) = 2.2$, $K(\text{H}_{11}(\text{TeO}_3)_6 + \text{H}) = -7.5$ etc.

Mn++++ EMF oth/un 0°C dil U 1961LIa (17314)2262
 $K(\text{H}_{10}\text{Mn}(\text{TeO}_6)_3 + \text{H}) = 7.5$
 $K(\text{H}_9\text{Mn}(\text{TeO}_6)_3 + \text{H}) = 7.5$
 $K(\text{H}_8\text{Mn}(\text{TeO}_6)_3 + \text{H}) = 11.5$

By pH method. Temp. unknown.

C34H38N4O6 H4L (3525)
Haematoporphyrin IX;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mn++++	EMF	oth/un	var	var	U				1963LCc (106037)	2263
								K(MnL(OH)2+H) < 10		

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EXPLANATORY NOTES

DATA Flags are :-

T Data at other TEMPERATURES
 I Data with various BACKGROUNDS
 H Data for THERMOCHEMICAL quantities
 M Data for TERNARY Complexes

EVALUATION Flags are :-

T or IUP=T signifies EVALUATION RATING = Tentative by IUPAC
 R or IUP=R signifies EVALUATION RATING = Recommended by IUPAC

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