

## SC-Database

Software version = 5.81 Data version = 4.62

Experiment list contains 2162 experiments for  
(no ligands specified)

Metal : Mg++

(no references specified)

(no experimental details specified)

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e- HL Electron (442)  
Electron;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	EMF	none	25°C	0.00	U				1973LMa (288)	1
K(Mg+2e=Mg/Hg)=-65.59(-1.940V)										

Mg++	oth	none	25°C	0.0	U				1946STa (289)	2
K(Mg+2e)=-79.75(-2358 mV)										

Mg++	oth	none	25°C	0.0	U				1945COa (290)	3
K(Mg+2e)=-80.3(-2375 mV)										

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	sol	oth/un	20°C	var	U				1956CHd (1127)	4
Kso(Mg3L2)=-19.68										

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AsW11039----- H7L (2468)  
alpha-Heteromonoarseno-polytungstate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	1.00M	U			K1=0.4	1984COa (1175)	5

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As2W17H2061----- H8L (2469)  
alpha-Heteropolydiarseno-polytungstate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	1.00M	U			K1=3.94 K1=1.06 (alpha2 isomer)	1984COa (1186)	6

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B04H4- HL Borate CAS 10043-35-3 (991)  
Borate; B(OH)4-

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++ EMF oth/un 25°C 0% M TIH K1=1.487 1995SWa (1296) 7  
Method: Pt/H2 electrode. Medium: LiCl/MgCl2/B(OH)3/LiB(OH)4, 0.015-0.15 m.  
DH(K1)=10.2 kJ mol-1, DS(K1)=62.6 J K-1 mol-1.  
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Mg++ gl NaCl 25°C 0.70M U K1=1.13 1988RBa (1297) 8  
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Mg++ gl none 25°C 0.0 M TIH 1976REa (1298) 9  
K(Mg+H2BO3)=1.62  
Calculated from data for 0.02-0.16 M MgCl2. Data for 10-50 C.  
DH(Mg+H2BO3)=2.0 kJ mol-1, DS=38 J K-1 mol-1.  
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Mg++ EMF NaCl 25°C 0.68M U K1=0.90 1974BKd (1299) 10  
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Mg++ oth NaCl 25°C 0.70M U K1=0.73 1972DHa (1300) 11  
Method: estimated value  
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Br- HL Bromide CAS 10035-10-6 (19)  
Bromide;  
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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Mg++ gl NaCl04 25°C 3.0M U K1=-1.5 1973HHa (1714) 12  
Method: also vapor phase osmometry  
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Mg++ con alc/w 20°C 100% U K1=3.38 1949GOb (1715) 13  
Medium: EtOH; I=0 corr.  
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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  
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Mg++ cal oth/un 25°C 0.03M C I 1981HWb (2609) 14  
DH(Mg + Fe(CN)6)=12.2 kJ mol-1. Fe is Fe(II). Data for I = 0.02-0.08 M.  
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CO3-- H2L Carbonate CAS 465-79-6 (268)  
Carbonate;  
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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Mg++ EMF NaCl04 25°C 3.0M C HM 1992KSb (3100) 15  
Solubility of Eitelite: Ks(NaMg0.5CO3+2H=Na+0.5Mg+CO2+H2O)=14.67.  
Pitzer parameters evaluated  
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Mg++ sol none 25°C 0.0 U K1=3.32 1985LDb (3101) 16  
K(Mg+HCO3)=1.23  
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Mg++ gl NaCl04 25°C 3.00M U T 1977RGb (3102) 17  
K(Mg+CO2+H2O=MgCO3+2H)=-15.64  
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$$K(\text{Mg}+\text{CO}_2+\text{H}_2\text{O}=\text{MgHCO}_3+\text{H})=-7.64$$

$$K'=-15.00$$

at 50 C:  $K(\text{Mg}+\text{CO}+\text{H}_2\text{O}=\text{MgHCO}_3+\text{H})=7.46$ ,  $K(\text{Mg}+\text{CO}_2+\text{H}_2\text{O}=\text{MgCO}_3+2\text{H})=-15.23$ ,  
 $K'=-15.37$ .  $K'$ :  $\text{Mg}+2\text{CO}_2+2\text{H}_2\text{O}=\text{Mg}(\text{HCO}_3)_2+2\text{H}$

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Mg++ gl none 25°C 0.0 U T H K1=2.984 1977SHb (3103) 18

$$K(\text{Mg}+\text{HL})=1.066$$

Calculated from data for 0.09-0.33 m  $\text{MgCl}_2/\text{KHCO}_3$ . Data for 10-90 C.

DH(K)=4.99 kJ mol<sup>-1</sup>, DS(K)=37.1 J K<sup>-1</sup> mol<sup>-1</sup>. At 90 C, K=1.34

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Mg++ gl oth/un 25°C 0.0 M TIH K1=2.98 1977SHc (3104) 19

Calculated from data for 0.04-0.12 m  $\text{MgCl}_2/\text{KHCO}_3$ . Data for 10-90 C.

DH(K)=8.44 kJ mol<sup>-1</sup>, DS(K)=85.4 J K<sup>-1</sup> mol<sup>-1</sup>. At 90 C, K1=3.41

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Mg++ EMF oth/un 25°C 0.70M U K1=2.05 1974PHc (3105) 20

$$K(\text{Mg}+\text{HL})=0.21$$

Medium: synthetic seawater

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Mg++ EMF oth/un 25°C 0.70M U M 1974PHc (3106) 21

$$B(\text{MgCaL}_2)=3.02$$

Medium: synthetic seawater

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Mg++ gl none 25°C 0.0 U T K1=2.88 1974RLa (3107) 22

$$K1=-21.39+3265/T+0.0446T$$

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Mg++ oth NaCl 25°C 0.70M U K1=1.5 1972DHa (3108) 23

$$K(\text{Mg}+\text{HCO}_3)=0.02$$

Method: Estimated data

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Mg++ sol none 25°C 0.0 U T M 1971LAa (3109) 24

$$K_{\text{so}}(\text{MgCaL}_2)=-17.0$$

$K_{\text{so}}(\text{MgCaL}_2)=-16.56(0\text{ C}), -16.63(5\text{ C}), -16.71(10\text{ C}), -16.79(15\text{ C}), -16.89(20\text{ C})$

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Mg++ ISE none 25°C 0.0 U I K1=3.24 1971NAa (3110) 25

$$K(\text{Mg}+\text{HL})=1.23$$

Also data at various ionic strengths

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Mg++ sol none 90°C 0.0 U 1970CHa (3111) 26

$$K_{\text{so}}=-9.1(\text{magnesite})$$

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Mg++ oth none 25°C 0.0 U T 1970CHa (3112) 27

$$K_{\text{so}}=-8.09$$

Method: Estimated data.  $K_{\text{so}}=-7.60(0\text{C}), -7.80(10\text{C}), -7.99(20\text{C}), -8.17(30\text{C}), -8.34(40\text{C}), -8.51(50\text{C}), -8.69(60\text{C}), -8.88(70\text{C}), -9.10(80\text{C}), -9.29(90\text{C}), -9.50(100\text{C})$

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Mg++ oth none 50°C 0.0 U T 1969HEa (3113) 28

$$K_{\text{so}}(\text{MgCa}(\text{CO}_3)_2)=-17.63$$

Method: Estimated data.  $K_{\text{so}}=-17.92(60\text{ C}); -19.28(100\text{ C}); -21.02(150\text{ C}); -23.26(200\text{ C}); -25.83(250\text{ C}); -28.46(300\text{ C}).(\text{dolomite})$

Mg++	sol	NaCl04	25°C	3.00M	U			K(Mg+HL)=1.49	1969H0d	(3114)	29
K(MgCO3(s)+2H=Mg+CO2(g)+H2O)=9.58(magnesite)											
Mg++	sol	NaCl04	25°C	3.00M	U	M			1969H0d	(3115)	30
K(CaMg(CO3)2(s)+4H=Mg+Ca+2CO2(g)+2H2O)=18.16(dolomite)											
Mg++	EMF	NaCl04	25°C	3.00M	U			K1=1.79	1969RGa	(3116)	31
K(Mg+HL)=0.15											
K(MgHL+HL)=0.47											
K1 and K on the basis of Kw=-14.22, K(H+L)=9.57, K(HL+H)=7.80											
Mg++	oth	oth/un	25°C	0.0	U	M			1965HAb	(3117)	32
K(CaL(s)+MgL(s))=1.26											
Mg++	oth	oth/un	18°C	0.0	U	M			1964HKa	(3118)	33
Kso(MgCaL2)=-17											
K(2CaL(s)+Mg=MgCaL2(s)+Ca)=0.54. Method: analysis											
Mg++	sol	oth/un	180°C	var	U	M			1964USa	(3119)	34
K(2CaL(s)+Mg=MgCaL2(s)+Ca)=1.28, K(MgCaL2(s)+Mg=2MgL(s)+Ca)=0.37											
Mg++	gl	oth/un	22°C	0.0	U				1963H0d	(3120)	35
K(Mg+HL)=0.86											
K(MgL+H)=8.00											
Mg++	gl	oth/un	25°C	0.0	U				1963H0d	(3121)	36
K(Mg+HL)=0.95											
Mg++	sol	oth/un	25°C	0.0	U	M			1963SRa	(3122)	37
Medium: 0 corr. K(CaMgL2(s)+2CO2(g)=Mg+Ca+4HL)=-13.19,											
K(CaL(s)+MgL(s)=CaMgL2(s))=2.07											
Mg++	oth	oth/un	25°C	0.0	U	HM			1963SRa	(3123)	38
K(CaL(s)+MgL(s)=MgCaL2(s))=1.98, DH=-12.3 kJ mol-1											
Mg++	gl	none	25°C	0.0	U				1962GTa	(3124)	39
K(Mg+HL)=1.16											
Mg++	gl	none	25°C	0.0	U			K1=3.40	1961GTa	(3125)	40
Mg++	sol	none	25°C	0.0	U	T			1961YRb	(3126)	41
Kso(MgCO3(s))=-7.46											
Kso(MgCO3(H2O)3(s))=-4.56											
I=0 corr. Kso(MgCO3, magnesite)=-7.52(0 C), -7.66(40 C), -7/09(55 C).											
Kso(MgCO3(H2O)3, nesquehonite)=-4.70(0 C), -4.49(40 C)											
Mg++	sol	none	25°C	0.0	U	M			1960GTa	(3127)	42
Kso(MgCaL2(s))=-19.33											

Mg++	sp	oth/un	20°C	0.10M	U		K1=2.18	1960RAa	(3128)	43
Mg++	sol	none	25°C	0.0	U	T HM		1959HAb	(3129)	44
							K=0.52			
K: CaL(s)+MgL(s)=CaMgL2(s). DH(K)=-7.32 kJ mol-1; DS=14.7 J K-1 mol-1										
Mg++	sol	oth/un	25°C	3.5%	U	M		1959KRd	(3130)	45
							Kso(MgCaL2(s)=Mg+Ca+2L)=-12.35			
							Ks(MgCaL2+Ca=2CaL(s)+Mg)=-0.15			
Medium: 3.5-6.0% sea water. Kso=-11.86, Ks=-0.16(at 4.5% salinity); Kso=-11.69, Ks=-0.21(at 6.0% salinity). Ks=-16.82(I=0 corr)										
Mg++	sol	oth/un	25°C	3.5%	U	I M		1958KRd	(3131)	46
							K=1.28			
Medium: 3.5-6.0% sea water. K(MgCaL2(s)+Ca=2CaL(s)+Mg)=1.00 at 4.5% salinity and 0.90(at 6.0% salinity).										
Mg++	EMF	oth/un	25°C	var	U			1942NAb	(3132)	47
							K(Mg+HL)=3.7			
Method: H electrode										
Mg++	gl	oth/un	22°C	var	U			1941GRa	(3133)	48
							K(Mg+HL)=0.77			
							K(MgL+H=MgHL)=-8.50			
Mg++	sol	none	25°C	0.0	U	T H		1935HRa	(3134)	49
							Kso(MgCO3(magnesite))=-7.80			
I=0 corr. K=-7.74(38.8 C). By calorimetry, 20 C, 2 M HCl: DH(MgCO3(s)+2H=Mg+H2O+CO2(g))=-14.6 kJ mol-1										
Mg++	sol	none	25°C	0.0	U	T HM		1935HRa	(3135)	50
							Kso(MgCaL2(s))=-16.50			
							K'=0.39			
							K"=-0.58			
I=0 corr. Kso=-16.74(38.8 C). K': 2CaCO3(s)+Mg=MgCa(CO3)2(s)+Ca =0.42(38.8C) K": MgCaL(s)+Mg=2MgL(s)+Ca. K"=-0.61(38.8 C).										
Mg++	cal	oth/un	20°C	2.0M	U	H		1935HRa	(3136)	51
Medium:HCl. DH(MgCa(CO3)2(s)+4H=Mg+Ca+2CO2(g)+H2O)=-41.8 kJ mol-1.										
Mg++	sol	none	25°C	0.0	U			1929KLa	(3137)	52
							Kso(MgCO3(s))=-5.0			
Mg++	sol	none	25°C	0.0	U			1923MIa	(3138)	53
							Ks(MgCO3(s)+H2CO3)=-0.35			
I=0 corr. Ks: MgCO3(s)+H2CO3=Mg+2HCO3										
Mg++	sol	none	22°C	0.0	U	T H		1915JOa	(3139)	54
							Kso(MgCO3(s))=-4.01			
I=0 corr. Kso=-3.51(3.5 C), -3.73(12 C), -3.94(18 C), -4.23(30 C),										

-4.49(40 C), -4.68(50 C). DH=-44.4 kJ mol<sup>-1</sup>

Mg++ sol none 12°C 0.0 U 1900B0a (3140) 55

Kso(MgCO<sub>3</sub>(s))=-4.59

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C<sub>6</sub>N<sub>6</sub>Fe---- H4L (2191)

Hexacyanoferrate (II); Fe(II)(CN)<sub>6</sub>----

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

Mg++ ISE oth/un 25°C 0.00 U H K1=3.77 1975JLa (3553) 56

DH=18.8 kJ mol<sup>-1</sup>

Mg++ EMF oth/un 25°C 3.0M U K1=3.40 1975LMd (3554) 57

Background salt: LiClO<sub>4</sub>

Mg++ sp none 25°C 0.0 U I K1=3.81 1957CPa (3555) 58

Also for iso-Pr/H<sub>2</sub>O mixtures

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C<sub>6</sub>N<sub>6</sub>Fe--- H3L Ferricyanide (2491)

Hexacyanoferrate (III); Fe(III)(CN)<sub>6</sub>---

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

Mg++ cal oth/un 25°C 0.10M U K1=1.44 1982ARa (3624) 59

Mg++ EMF oth/un 25°C 3.0M U K1=0.79 1975LMd (3625) 60

Background salt: LiClO<sub>4</sub>

Mg++ sol oth/un 25°C 3.0M U K1=0.04 1967RMd (3626) 61

Medium: LiNO<sub>3</sub>

Mg++ sol oth/un 25°C 3.0M U H K1=-1.03 1966MRb (3627) 62

Medium: LiCl. By calorimetry: DH(K1)=-14.2 kJ mol<sup>-1</sup>, DS=-67 J K<sup>-1</sup> mol<sup>-1</sup>

Mg++ con none 25°C 0.0 U K1=2.79 1952GMB (3628) 63

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

Chloride;

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

Mg++ ISE NaNO<sub>3</sub> 25°C 0 C TI K1=0.49 1998RSa (4423) 64

Method: Cl-ISE, extrapolated to I=0

Mg++ oth alc/w 25°C 61% C K1=20.80 1996CHF (4424) 65

Kso(MgCl<sub>2</sub>.6H<sub>2</sub>O)=4.55

Method: application of Pitzer theory to literature data.

Mg++ cal none 250°C 0.0 C TIH K1=1.86 1992G0a (4425) 66

Calculated from data for 0.24-1.0 m MgCl<sub>2</sub>. Data for 250-325 C.  
 DH(K<sub>1</sub>)=72.7 kJ mol<sup>-1</sup>, DS(K<sub>1</sub>)=175 J K<sup>-1</sup> mol<sup>-1</sup>.

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Mg++	sol NaCl	300°C	var	M TI	K <sub>1</sub> =2.30	1990SSa	(4426)	67
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300-400 C and 500 bar. Constants at I=0

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Mg++	sp	NaClO <sub>4</sub>	25°C	1.00M	U	K <sub>1</sub> <0.77	1983BWa	(4427)	68
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Mg++	gl	KNO <sub>3</sub>	25°C	3.00M	U T H	K <sub>1</sub> =-0.13	1982MSb	(4428)	69
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K<sub>1</sub>=-0.14(15 C), K<sub>1</sub>=-0.08(45 C), K<sub>1</sub>=-0.02(65 C), K<sub>1</sub>=0.10(85 C)  
 DH=2.34 kJ mol<sup>-1</sup>, DS=5.4 J mol<sup>-1</sup> K<sup>-1</sup>

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Mg++	gl	KCl	25°C	0.70M	U	K <sub>1</sub> =-0.46	1978EWa	(4429)	70
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Mg++	con none	25°C	0.0	C		K <sub>1</sub> =0.66	1977FFa	(4430)	71
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P=1 atm. Also data for P=250-2000 atm.

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Mg++	sol oth/un	25°C	0.70M	C		K <sub>1</sub> =-0.32	1975EWa	(4431)	72
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Mixed medium of NaCl, KCl, MgCl<sub>2</sub>, NaClO<sub>4</sub>, Mg(ClO<sub>4</sub>)<sub>2</sub>, Na<sub>2</sub>SO<sub>4</sub>.  
 Method: solubility of gypsum.

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Mg++	EMF	NaNO <sub>3</sub>	25°C	0.10M	C T H	K <sub>1</sub> =-0.11	1975SCd	(4432)	73
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Method: Ag,AgCl electrode. Data for 15-60 C.  
 DH(K<sub>1</sub>)=-5.42 kJ mol<sup>-1</sup>, DS(K<sub>1</sub>)=-20.5 J K<sup>-1</sup> mol<sup>-1</sup>.

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Mg++	con non-aq	25°C	100%	U		K <sub>1</sub> =2.6	1974KKc	(4433)	74
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Medium: 50% w/w EtOH/acetone. K<sub>1</sub>=2.48 to 2.68 (depending upon eqn)

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Mg++	oth	NaClO <sub>4</sub>	25°C	3.0M	U	K <sub>1</sub> =1.0	1973HHa	(4434)	75
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Method: vapor phase osmometry

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Mg++	sol oth/un	25°C	0.0	U			1967LEa	(4435)	76
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K<sub>s</sub>(KMgCl<sub>3</sub>(H<sub>2</sub>O)<sub>3</sub>,x)=4.00  
 K<sub>s</sub>(MgCl<sub>2</sub>(H<sub>2</sub>O)<sub>6</sub>,y)=4.445

x=carnallite, y=bischofite

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Mg++	con alc/w	20°C	100%	U T		K <sub>1</sub> =3.79	1960GDa	(4436)	77
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Medium: EtOH, I=0 corr. K<sub>1</sub>=3.22(-40 C), 3.40(-20 C), 3.67(0 C)

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Mg++	con diox/w	35°C	20%	U I		K <sub>1</sub> =1.3	1959DDa	(4437)	78
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I=0 corr. K<sub>1</sub>=1.7(30% dioxan)

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Mg++	oth	NaClO <sub>4</sub>	0°C	sat	U I	K <sub>1</sub> =0.62	1959KEb	(4438)	79
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Method: freezing point, Medium:KClO<sub>4</sub> sat. In KClO<sub>3</sub> sat K<sub>1</sub>=0.08.  
 I=0 corr. K<sub>1</sub>=0.91

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 ClO<sub>4</sub>- HL Perchlorate CAS 7001-90-3 (287)  
 Perchlorate;

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++ con mixed 25°C 20% C K1=1.66 2003SIa (6142) 80  
Medium: 20% w/w propylene carbonate/ethylene carbonate.

Mg++ con non-aq 25°C 100% C K1=1.54 1992STa (6143) 81  
Medium: propylene carbonate.

Mg++ oth non-aq 25°C 100% U T H K1=0.06 1974PKc (6144) 82  
Medium: acetone. DH(K1)=5.4 kJ mol<sup>-1</sup>. K1=-0.40(-90 C), -0.17(-45 C),  
-0.07(-25 C), 0.02(0 C), 0.23(45 C). Method: infrared spectra

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

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
Mg++ ISE none 25°C 0.0 C B2=3.2 2000FGa (6676) 83  
Calculated from data for I=0.10 M (TISAB).

Mg++ ISE none 25°C 0.0 C Kso(MgF2)=-8.12 1993DPd (6677) 84  
Method: double membrane F ion selective electrode.

Mg++ ISE NaCl 25°C 1.0M M I K1=1.16 1988CBb (6678) 85  
Method: F ion selective electrode and glass electrode. At I=3.0, K1=1.12;  
at I=5.0, K1=1.32.

Mg++ ISE alc/w 25°C 100% C B2=11.1 1988Tia (6679) 86

Mg++ gl KNO3 25°C 3.00M U T H K1=1.35 1982MSb (6680) 87  
K1=1.31(15 C), K1=1.44(45 C), K1=1.54(65 C), K1=1.64(85 C)  
DH=7.32 kJ mol<sup>-1</sup>, DS=50.6 J mol<sup>-1</sup> K<sup>-1</sup>

Mg++ ISE alc/w 25°C 100% C I K1=4.40 1978BBc (6681) 88  
Medium: MeOH, 0.05 M NaClO4. In 0.05 M Et4NClO4 K1=4.56  
In H2O, 0.05 M NaClO4 K1=1.80, in 0.05 M Et4NClO4 K1=1.86

Mg++ gl NaClO4 25°C 0.70M U K1=1.36 1978EWa (6682) 89

Mg++ ISE NaClO4 25°C 1.0M U T K1=1.38 1971BHc (6683) 90  
K1=1.23(2 C), 1.40(35 C)

Mg++ ISE NaNO3 25°C 1.0M U T H K1=1.32 1971CVa (6684) 91  
DH(K1)=6.3 kJ mol<sup>-1</sup>, DS=46.9 J K<sup>-1</sup> mol<sup>-1</sup>. K1=1.27(15 C), 1.35(35 C)

Mg++ ISE NaClO4 16°C 0.50M U K1=1.26 1970BOa (6685) 92

Mg++ ISE NaCl 25°C 0.10M U I K1=1.46 1970ELd (6686) 93  
K1=1.41(I=0.2), 1.34(I=0.4), 1.29(I=0.6), 1.27(I=0.7-1.0)



Mg++	ISE	NaClO4	25°C	0.50M	U	K1=1.32	1969ALa	(6687)	94
Mg++	ISE	NaNO3	25°C	1.0M	U	K1=1.31	1969GSa	(6688)	95
Mg++	ISE	NaClO4	25°C	1.0M	U T	K1=1.32	1968TWa	(6689)	96
K1=1.15(2 C), 1.40(39 C)									
Mg++	cal	NaClO4	25°C	1.0M	U H		1968TWa	(6690)	97
By calorimetry: DH(K1)=13.4 J K-1 mol-1, DS(K1)=70.3 J K-1 mol-1									
Mg++	ISE	NaClO4	25°C	1.0M	U H		1968TWa	(6691)	98
DH(K1)=11.3 kJ mol-1, DS(K1)=62.8 J K-1 mol-1									
Mg++	EMF	NaClO4	25°C	0.50M	U T H	K1=1.30	1954CTa	(6692)	99
At 15 C K1=1.20. DH(K1)=17 kJ mol-1, DS=80 J K-1 mol-1. AT I=0 corr, 25 C, K1=1.82									
Mg++	con	none	27°C	0.0	U T		1923BOa	(6693)	100
Kso(MgF2)=-8.19									
*****									
GeW11039----- H8L CAS 37369-86-1 (2466)									
alpha-Heteromonogermanium-polytungstate;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	1.00M	U		K1=2.96	1984COa	(7467) 101
*****									
I-		HL		Iodide			CAS 10034-85-2	(20)	
Iodide;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	con	alc/w	20°C	100%	U		K1=3.29	1949GOB	(7882) 102
Medium: EtOH, I=0 corr.									
*****									
I03-		HL		Iodate			CAS 7782-68-5	(1257)	
Iodate;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sol	none	25°C	0.0	U		K1=0.72	1938WDa	(8489) 103
Mg++	sol	none	25°C	0.0	U		K1=0.72	1930DAa	(8490) 104
*****									
MoO4--		H2L		Molybdate			(443)		
Molybdate;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	oth/un	25°C	?	U M			1997STa	(8708) 105

$$K(\text{Mg}+\text{H}_2\text{L}=\text{MgL}+2\text{H})=-3.1$$

Ligand: nano-Molibdenomanganate, MnMo9032-----

\*\*\*\*\*

NH<sub>3</sub> L Ammonia CAS 7664-41-7 (414)  
Ammonia

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	vlt	oth/un	0°C	2.40M	U			K1=0.19 B3=-0.19 B4=-1.0 B5=-1.7	1973SBd	(9087) 106

Medium:Na<sub>2</sub>SO<sub>4</sub>

Mg++	cal	R4N.X	rt	3.0M	U	H			1952FYa	(9088) 107
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Medium: NH<sub>4</sub>NO<sub>3</sub>. DH(B6?)=-0.42 kJ mol<sup>-1</sup>; DS(B6?)=-79.5.

Mg++	sol	oth/un	25°C	dil	U			K1=-0.1	1943DVa	(9089) 108
Mg++	gl	R4N.X	23°C	2.0M	U			K1=0.23 K3=-0.42 K4=-0.7 K5=-0.95 K6=-1.3	1941BJa	(9090) 109

Also by solubility. Medium: NH<sub>4</sub>NO<sub>3</sub>.

\*\*\*\*\*

NO<sub>3</sub>- HL Nitrate CAS 7697-37-2 (288)  
Nitrate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	sp	oth/un	25°C	5.80M	U			K1=0.061	1980BDa	(9562) 110
Mg++	con	non-aq	25°C	100%	U			K1=2.60	1974KKc	(9563) 111
Medium:1:1 EtOH/Me <sub>2</sub> CO										
Mg++	ix	mixed	23°C	90%	U			K1=0.20 B2=-0.07	1966WFa	(9564) 112

Medium: i-PrOH, 0.5 M HL

\*\*\*\*\*

OH- HL Hydroxide (57)  
Hydroxide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	EMF	NaCl	25°C	0.0	C	H			1997PWa	(10855) 113

\*K1=-11.68

Method: Pt/H<sub>2</sub> electrode. Data for 1-250 C and 0.11-5.0 mol kg<sup>-1</sup> NaCl.  
DH(\*K1)=70.1 kJ mol<sup>-1</sup>, DS(\*K1)=11 J K<sup>-1</sup> mol<sup>-1</sup>. For 1.0 M NaCl, \*K1=-11.91.

Mg++	EMF	NaCl	60°C	0.10M	C	TIH			1996BDb	(10856) 114
------	-----	------	------	-------	---	-----	--	--	---------	-------------

K(Mg=Mg(OH)<sub>2</sub>+2H)=-15.29

Hydrogen electrode. No evi. Mg(OH)<sub>2</sub>. At I=1.0 M NaCl: K=15.52. Also data at T=100, 150, 200 C. At I=0.0 M: K=-17.13 (25 C), -15.61 (60 C), DH=112 kJ m<sup>-1</sup>

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Mg++            sol oth/un 350°C   var   U T                            1986WAa (10857) 115

\*K<sub>1</sub>=-5.38

K(Mg(OH)<sub>2</sub>(s)+H=Mg(OH)+H)=7.22

300-600 C, P=1-3 kbar. Constant at I=0

---

Mg++            gl    NaNO<sub>3</sub>   25°C 1.00M U                            1981Eib (10858) 116

\*B(2,2)=-21.07

\*B(3,4)=-39.16

---

Mg++            gl    NaClO<sub>4</sub> 25°C 3.00M U T                            1978BBa (10859) 117

\*K<sub>1</sub>=-12.00

\*B(2,1)=-12.30

\*B(4,4)=-38.80

---

Mg++            gl    NaNO<sub>3</sub>   25°C   1.0M U                            1977Eia (10860) 118

\*B(2,2)=-22.07

\*B(3,4)=-39.06

---

Mg++            gl    none     25°C   0.0   U T                            K<sub>1</sub>=2.21            1975MHb (10861) 119

At 10 C: K<sub>1</sub>=2.18; 90 C: 2.54

---

Mg++            oth NaCl     25°C 0.70M U                            K<sub>1</sub>=1.6            1972DHa (10862) 120

Method:Estimated data

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Mg++            gl    KNO<sub>3</sub>     37°C 0.15M U                            1970CHc (10863) 121

\*K<sub>1</sub>=-11.5

---

Mg++            oth none     60°C   0.0   U T                            K<sub>1</sub>=2.8            1969HEa (10864) 122

\*K<sub>so</sub>=14.84

Method:Literature evaluated data. K<sub>1</sub>=2.7(50 C). 100 C: K<sub>1</sub>=3.1, \*K<sub>so</sub>=13.19. 150 C: K<sub>1</sub>=3.6,\*K<sub>so</sub>=11.41. 200 C:K<sub>1</sub>=4.1,\*K<sub>so</sub>=10.09.\*K<sub>so</sub>=9.08(250C),8.53(300C)

---

Mg++            sol NaClO<sub>4</sub> 25°C 3.00M U                            K<sub>1</sub>=4.48            1969H0d (10865) 123

\*K<sub>s</sub>=16.58(brucite)

\*K<sub>s</sub>(Mg(OH)<sub>2</sub>+2H=Mg+2H<sub>2</sub>O)

---

Mg++            oth none     25°C   0.0   U T                            1968KRa (10866) 124

K<sub>so</sub>=-10.50

Method:Estimated data. K<sub>so</sub>=-10.71(50 C), -11.45(100 C), -12.48(150 C)

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Mg++            sol none     25°C   0.0   U                            K<sub>1</sub>=2.60            1963H0b (10867) 125

K<sub>so</sub>=-11.15

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Mg++            gl    NaCl     25°C   3.0M U                            1963LEa (10868) 126

\*K<sub>1</sub>=-12.2 or \*B(2,1)=-12.3 or \*B(4,4)=-39.8. Method: H electrode

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Mg++	EMF	KCl	30°C	0.10M	C		1952CCa (10869)	127
						*K1=-12.8		
Mg++	EMF	none	0°C	0.0	C		1951VIa (10870)	128
						Kso(Mg(OH)2)=-9.22		
Mg++	con	oth/un	20°C	dil	U		1948KAa (10871)	129
						Kso(Mg(OH)2)=-10.85		
Mg++	gl	none	25°C	0.0	U	K1=2.58	1948SDa (10872)	130
Mg++	EMF	none	25°C	0.0	C		1941NAa (10873)	131
						Kso(Mg(OH)2)=-10.51		
Method: H electrode. Also Kso=-10.74								
Mg++	sol	none	25°C	0.0	U		1929KLa (10874)	132
						Kso(Mg(OH)2)=-11.30		
Mg++	EMF	oth/un	16°C	var	C		1925BRa (10875)	133
						Kso(Mg(OH)2)=-10.64		
Method: H electrode								
Mg++	EMF	none	18°C	0.0	C	K1=2.1	1925GJa (10876)	134
						Kso=-10.93 (stable)		
						Kso=-9.2 (unstable)		
Mg++	con	oth/un	20°C	var	U		1924RKa (10877)	135
						Kso(Mg(OH)2)=-9.63		
Mg++	sp	oth/un	18°C	var	U	K1=2.4	1923K0a (10878)	136
Medium: MgCl2 var. Method: colorimetry								
Mg++	kin	oth/un	100°C	0.06M	U	K1=2.62	1913KUa (10879)	137
						*K1=-9.76		
*****								
P04---		H3L	Phosphate			CAS 7664-38-2	(176)	
Phosphate;								
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Mg++	gl	KCl	25°C	0.25M	C	T		1996IFa (13057) 138
							B(MHL)=13.80	
At 37 C: B(MgHL)=13.76								
Mg++	gl	NaNO3	25°C	0.10M	M			1996SSa (13058) 139
							K(Mg+HL)=1.83	
Mg++	gl	NaCl04	25°C	3.0M	C	I		1994CIa (13059) 140
							K(Mg+H2L)=0.16	
							K(Mg+2H2L)=0.64	

$$K(\text{Mg} + 3\text{H}_2\text{L} = \text{MgH}_3\text{L}_2 + \text{H}_3\text{L}) = -2.49$$

Mg++      oth NaCl    25°C 0.15M U T      K1=1.9      1993GMa (13060) 141  
Method: Coulometric titration. K1=2.9 (37 C)

Mg++	gl	KCl	25°C 0.20M U	K1=3.13	1985LLa (13062) 143
				K(Mg+HL)=1.94	
				K(Mg+H2L)=1.51	

Mg++      sol none    25°C   0.0 U                          1984VBa (13063) 144  
K(Mg+H<sub>2</sub>P<sub>4</sub>O)=1.28  
K(Mg+HP<sub>4</sub>O)=2.85

Mg++      gl   R4N.X   37°C   0.10M C   I      1982DRc (13064) 145  
K(Mg+H2PO4)=1.22  
K(Mg+HPO4)=2.16

Additional method: Data for 0.03-0.50 M Et4NI.  
At I=0.0 M,  $K(\text{Mg}+\text{H}_2\text{PO}_4)=1.66$ .

Mg++ gl oth/un 20°C ? U 1977KGa (13065) 146  
K(Mg+H2PO4)=0.42

Mg++ gl oth/un 25°C 0.68M C K1=3.56 1976ACc (13066) 147  
K(Mg+HP04)=1.47  
K(Mg+H2P04)=0.37

Medium: NaCl/MgCl<sub>2</sub> and KCl/MgCl<sub>2</sub> mixtures.

Mg++ sol NaClO4 25°C 3.00M C 1976HHC (13067) 148  
K(MgHL.3H2O(s)=Mg+HL)=-4.50

Mg++ sp oth/un 30°C 0.30M U I K1=1.20 1975Kwa (13068) 149  
K1=2.52 using an ISE at I=0.01, 23 C

Mg++      gl   NaClO4 25°C 3.00M C      1974HHb (13069) 150  
K(Mg+HL)=1.42  
K(Mg+H+HL)=6.44

Mg++      gl    KNO3    15°C 0.10M U      1972FSa (13070) 151  
K(Mg+HL)=1.78

Mg++	gl	KN03	37°C	0.15M	U	K1=3.4	1970CHC (13071)	152
						K(Mg+HL)=1.8		
						K(Mg+H2L)=0.6		
						K(MgH2L+HL)=2.5		

$$K(2\text{MgHL}=(\text{MgHL})_2)=1.4$$

Mg++ oth none 25°C 0.0 U 1969PGa (13072) 153  
 $K(\text{Mg}+\text{HPO}_4)=2.74$

Mg++ gl oth/un 25°C 0.0 U 1963TFa (13073) 154  
 $K_{\text{so}}(\text{MgNH}_4\text{L}(\text{H}_2\text{O})_6)=-13.15$   
 $K_{\text{so}}(\text{MgKL}(\text{H}_2\text{O})_6)=-10.62$   
 $K_{\text{s}}(\text{MgHL}(\text{H}_2\text{O})_3)=-5.82$   
 $K(\text{Mg}+\text{HL})=2.91$

Also by solubility. Medium:0 corr.  $K_{\text{so}}(\text{Mg}_3\text{L}_2(\text{H}_2\text{O})_n)=-25.20(n=8)$ ,  $-23.1(n=22)$

Mg++ sol oth/un 20°C var U 1961CAb (13074) 155  
 $K_{\text{so}}(\text{Mg}_3\text{L}_2)=-23.77$

Mg++ gl R4N.X 25°C 0.20M U 1956SAa (13075) 156  
 $K(\text{Mg}+\text{HL})=1.88$

Medium: Pr4NCl

Mg++ sol none 38°C 0.0 U 1954HPa (13076) 157  
 $K_{\text{so}}(\text{Mg}_3\text{L}_2)=-27.2$

Mg++ sol NaCl 38°C 0.16M U I 1943THa (13077) 158  
 $K(\text{Mg}+\text{HL})=1.62$   
 $K_{\text{s}}(\text{MgHL}(s)=\text{Mg}+\text{HL})=-4.5$

By conductivity, I=0 corr.  $K(\text{Mg}+\text{HL})=2.87$

Mg++ gl none 25°C 0.0 U 1940GRa (13078) 159  
 $K(\text{Mg}+\text{HL})=2.50$

Mg++ sol oth/un 25°C dil U M 1910BUa (13079) 160  
 $K_{\text{s}}(\text{Mg}(\text{NH}_4)\text{L}(s)=\text{Mg}+\text{NH}_4+\text{L})=-12.6$

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	NaNO3	25°C	1.00M	U		K1=1.23	1984COa (13399)	161
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\*\*\*\*\*  
 P206---- H4L Hypophosphate CAS 9803-60-3 (199)  
 Hypophosphate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	R4N.X	25°C	0.50M	U		K1=2.65	1967CMc (13413)	162
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Ligand: O3POPHO2---, Medium: Me4NCl

\*\*\*\*\*  
 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
Mg++	kin	R4N.X	30°C	0.10M	U		K1=5.69	1978KHa (13550)	163
Mg++	ix	NaClO4	25°C	0.10M	U	I	K1=5.06	1978MOa (13551)	164
Mg++	EMF	R4N.X	25°C	1.00M	U		K(Mg+H2L)=1.33	1973PTa (13552)	165
Medium: Me4NCI									
Mg++	EMF	KNO3	15°C	0.10M	U		K1=5.37 K(Mg+HL)=3.18	1972FSa (13553)	166
Mg++	gl	NaNO3	25°C	0.10M	U		K1=4.7 K(MgL+H)=6.0	1963JWa (13554)	167
Mg++	gl	R4N.X	25°C	1.00M	U	T	K1=5.42 K(MgL+Mg)=2.33 K(Mg+HL)=3.05	1961IRa (13555)	168
Medium: Me4NBr. K(Mg+HL)=4.13(65 C)									
Mg++	gl	none	25°C	0.0	U	T	K1=7.2 B(Mg(OH)L)=9.3	1959WOa (13556)	169
K1=7.1(40 C)									
Mg++	gl	R4N.X	25°C	1.00M	U		K1=5.41 K(MgL+Mg)=2.34 K(Mg+HL)=3.06	1957LWa (13557)	170
Medium: Me4NCI									
Mg++	sp	KNO3	19°C	0.02M	U		K1=5.70	1957VAc (13558)	171
Mg++	cal	oth/un	25°C	var	U	H		1957VAc (13559)	172
DH(K1)=12.1 kJ mol <sup>-1</sup> , DS=150 J K <sup>-1</sup> mol <sup>-1</sup>									
*****									
P208---- H4L CAS 13825-81-5 (2402)									
Peroxodiphosphate, also cyclic metaposphates, thiophosphates etc.;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	kin	NaNO3	65°C	1.0M	C		K(Mg+HP208)=1.63	1985GGb (13688)	173
Ligand is peroxydisulfate, S208----									
Mg++	gl	R4N.X	25°C	1.00M	U		K1=3.33 K(MgL+Mg)=1.32 K(Mg+HL)=1.76	1960CEa (13689)	174
Medium: Me4NCI									
*****									

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	1.00M	U			K1=4.16 K1=2.16 (alpha2 isomer)	1984COa (13707)	175

\*\*\*\*\*  
 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
Mg++	sp	oth/un	25°C	0.05M	C			K1=5.8 K(MgL+Mg)=2.04	1981BKf (13823)	176

Method: by competition with 8-hydroxyquinoline.  
 Medium: 0.05 M Tris buffer, pH 7.5. K(MgL+Mg) determined by 31P nmr.

Mg++	kin	oth/un	30°C	0.10M	U			K1=5.97	1978KHa (13824)	177
------	-----	--------	------	-------	---	--	--	---------	-----------------	-----

Mg++	gl	KNO3	25°C	0.10M	U T H			K1=4.93 K(Mg+HL)=3.33	1973TRa (13825)	178
------	----	------	------	-------	-------	--	--	--------------------------	-----------------	-----

At 2 C: K1=6.39, K(Mg+HL)=3.60; 35 C: K1=6.56, K=4.06. DH(K1)=-8.8 kJ mol<sup>-1</sup>, DH((Mg+HL)=5.9

Mg++	EMF	KNO3	15°C	0.10M	U			K1=5.75 K(Mg+HL)=4.00	1972FSa (13826)	179
------	-----	------	------	-------	---	--	--	--------------------------	-----------------	-----

Mg++	gl	KNO3	45°C	0.10M	U			K1=5.47 B2=6.57 K(Mg+HL)=3.49	1971TRa (13827)	180
------	----	------	------	-------	---	--	--	----------------------------------	-----------------	-----

On the basis of K(HL)=8.13, K(H2L)=5.43, K(MgL+HL)=1.9, K(MgL2+H)=8.9

Mg++	gl	R4N.X	20°C	0.10M	U H			K1=7.05 K(Mg+HL)=4.45 K(MgL+H)=6.22	1965ANa (13828)	181
------	----	-------	------	-------	-----	--	--	-------------------------------------------	-----------------	-----

Medium: Me4NNO3. By calorimetry: DH(K1)=18.1 kJ mol<sup>-1</sup>, DS=196 J K<sup>-1</sup> mol<sup>-1</sup>

Mg++	gl	KCl	25°C	0.10M	U			K1=5.65 K(Mg+HL)=3.27 K(MgL+H)=5.68	1964EMb (13829)	182
------	----	-----	------	-------	---	--	--	-------------------------------------------	-----------------	-----

Mg++	gl	NaNO3	25°C	0.10M	U			K1=5.7 K(MgL+H)=5.8	1963JWa (13830)	183
------	----	-------	------	-------	---	--	--	------------------------	-----------------	-----

Mg++	gl	R4N.X	?	0.10M	U			K1=5.8 K(Mg+HL)=3.6	1962RKa (13831)	184
------	----	-------	---	-------	---	--	--	------------------------	-----------------	-----

Medium: K,NH4Cl

Mg++	gl	R4N.X	25°C	1.00M	U T			K1=5.81 K(MgL+Mg)=2.13	1961IRa (13832)	185
------	----	-------	------	-------	-----	--	--	---------------------------	-----------------	-----



K(Mg+HL)=3.36

Medium: Me4NBr. At 65 C: K1=5.76, K(MgL+Mg)=2.12, K(Mg+HL)=3.40

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Mg++	gl	none	25°C	0.0	U T	K1=8.6	1959W0a (13833)	186
						B(Mg(OH)L)=11.0		

At 40 C: K1=8.3, B(Mg(OH)L)=10.4

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Mg++	gl	R4N.X	25°C	1.00M	U	K1=5.83	1957LWb (13834)	187
						K(MGL+Mg)=2.13		
						K(Mg+HL)=3.34		

Medium: Me4NCl

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Mg++	gl	KCl	20°C	0.10M	U	K1=5.80	1956MSa (13835)	188
						K(Mg+HL)=3.7		

\*\*\*\*\*

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

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	sp	R4N.X	?	0.10M	U		K1=2.74	1962RKa (13941)	189
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Medium: NH4Cl

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Mg++	con	none	25°C	0.0	U		K1=3.31	1949JMa (13942)	190
------	-----	------	------	-----	---	--	---------	-----------------	-----

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Mg++	EMF	KCl	20°C	0.10M	U		K1=1.11	1949ZUa (13943)	191
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P4012---- H4L CAS 13598-74-8 (234)  
Cyclotetrametaphosphate;

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	sp	R4N.X	?	0.10M	U		K1=4.52	1962RKa (13994)	192
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Medium: NH4Cl

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Mg++	con	none	25°C	0.0	U		K1=5.17	1950JMb (13995)	193
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P4013----- H6L Tetraphosphate (1102)  
Tetraphosphate;

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	ix	R4N.X	25°C	0.1M	U		K1=5.60	19810Ma (14041)	194
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For the pentaphosphate: K1=6.03; hexaphosphate: K1=6.22

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Mg++	kin	oth/un	30°C	0.10M	U		K1=6.33	1978KHa (14042)	195
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Mg++	gl	R4N.X	25°C	1.0M	U		K1=6.04	1968WMc (14043)	196
						K(Mg+HL)=3.74			
						K(Mg+MgL)=2.19			

Medium: Me4NCl

-----  
Mg++ kin oth/un 60°C var U K1=1.75 1967Wic (14044) 197  
\*\*\*\*\*

P6012----- H6L CAS 25268-83-1 (6590)  
Dodecaoxohexaphosphate(III); anion of (PO.OH)<sub>6</sub>

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

Mg++ sp R4N.X 25°C 0.10M C K1=8.4 1999Nwa (14056) 198  
Method: competition with EDTA. Medium: 0.10 M Me4NCl, pH 7.

-----  
Mg++ sp KCl 25°C 0.50M U I K1=5.77 1990NTa (14057) 199  
Data also at I= 1.0 M KCl: B1=5.16; 1.5 4.95; 2.0 4.82; 2.5 4.49; 3.0 4.26

-----  
Mg++ gl R4N.X 25°C 1.0M U K1=3.33 B2=4.65 1960CEa (14058) 200  
K(Mg+HL)=1.76

Medium: Me4NCl

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

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

Mg++ gl NaClO4 25°C 3.0M U K1=-1 1973HHa (14797) 201  
Method: also vapor phase osmometry

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S04-- H2L Sulfate CAS 7664-93-9 (15)  
Sulfate;

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

Mg++ sp oth/un 25°C 0.0 C K1=2.22 2004BCa (15906) 202  
Method: dielectric relaxation spectroscopy. Calculated from data for  
0.017-2.24 M MgSO4 solutions. Evidence for Mg2SO4.

-----  
Mg++ con oth/un 25°C 0.0 C TIH K1=2.196 2002TBb (15907) 203  
Data for 5-35 C and 0.0001 to 2.5 m. Assumes formation of contact plus  
solvent-separated ion pairs. DH(K1)=6.627 kJ mol<sup>-1</sup>, DS=64.3 J K<sup>-1</sup> mol<sup>-1</sup>.

-----  
Mg++ con none 20°C 0.0 C I K1=2.21 2000TMa (15908) 204  
Also data for 0.06-0.69 mole fraction MeOH/H2O.

-----  
Mg++ con none 25°C 0.0 C I K1=2.19 1986SDa (15909) 205  
Value derived from data for 0.001-0.05 self medium.

-----  
Mg++ con none 25°C 0.0 C K1=2.17 1985SGd (15910) 206

-----  
Mg++ EMF none 25°C 0.0 C TI K1=2.88 1983PGa (15911) 207  
Method: Pt/quinhydrone electrode. Data for 5-35 C. At 15 C, K1=2.958.

DH(K1)=-12.9 kJ mol<sup>-1</sup>. K1 extrap. from data for I=0.015-0.05 M MgSO<sub>4</sub>/H<sub>2</sub>SO<sub>4</sub>

Mg++ oth none 25°C 0.0 C H K1=2.10 1981YYa (15912) 208  
Calcd from published osmotic coefficient data. From UV spectrometry  
(competition with Cu), K1=2.03. From conductivity, K1=2.08, DH=6.78 kJ m<sup>-1</sup>

Mg++ ISE oth/un 25°C 0.10M C I K1=1.48 1980ELb (15913) 209  
Extrapolation to zero concentration: K=2.34.

Mg++ ISE oth/un 25°C 0.10M C I K1=1.48 1980ELc (15914) 210  
Medium: MgCl<sub>2</sub>. At I=0.0 M, K1=2.34. By spectrophotometry (competition with  
terpyridyl), at I=1.0, K1=0.72; at I=0.0 M, K1=2.29.

Mg++ con none 25°C 0.0 C T K1=2.21 1979FFc (15915) 211  
Data for 15-25 C. Also data at 1000 and 2000 atm.  
K expressed on molal scale.

Mg++ ISE none 25°C 0.0 M T H K1=2.23 1978EFb (15916) 212  
Method: divalent cation electrode in dil NaCl. at 15 C, K1=2.21;  
at 35 C, K1=2.26. DH(K1)=4.81 kJ mol<sup>-1</sup>, DS=59 J K<sup>-1</sup> mol<sup>-1</sup>.

Mg++ gl NaCl 25°C 0.70M U I K1=0.79 1978EWa (15917) 213  
In NaClO<sub>4</sub>: K=0.81

Mg++ gl oth/un 20°C ? U K1=0.40 1977KGa (15918) 214

Mg++ sol oth/un 25°C 0.70M C K1=1.09 1975EWa (15919) 215  
Mixed medium of NaCl, KCl, MgCl<sub>2</sub>, NaClO<sub>4</sub>, Mg(ClO<sub>4</sub>)<sub>2</sub>, Na<sub>2</sub>SO<sub>4</sub>.  
Method: solubility of gypsum.

Mg++ cal none 25°C 0.0 C H 1975LMe (15920) 216  
DH(Mg+SO<sub>4</sub>)=4.8-5.7 kJ mol<sup>-1</sup>. Determined from enthalpies of dilution.

Mg++ gl oth/un 25°C 0.50M U T K1=2.47 1975MVa (15921) 217

Mg++ con none 0°C 0.0 U K1=2.2 1975TAa (15922) 218

Mg++ sp none 25°C 0.0 C K1=1.99 1975YYa (15923) 219  
By vapour pressure osmometry, K1=2.04

Mg++ cal oth/un 25°C 0.0 U H 1973HPa (15924) 220  
DH(K1)=6.5 kJ mol<sup>-1</sup>

Mg++ con oth/un 0°C 0.0 U T H K1=2.01 1973KAb (15925) 221  
K1=2.06(10 C), 2.13(25 C), 2.24(45 C)  
DH(K1)=8.54 kJ mol<sup>-1</sup>, DS=69.5 J K<sup>-1</sup> mol<sup>-1</sup> (25 C)

Mg++ cal oth/un 25°C 0 U H 1973POa (15926) 222  
DH(K1)=5.5 to 5.7 kJ mol<sup>-1</sup>

Mg++	con none	25°C	0.0	U	K1=2.24	1972ISa (15927)	223
Pressure: 100 kg/cm <sup>2</sup> . K1=2.17(p=200), 2.13(p=400), 2.12(p=600), 2.11(p=800), 2.09(p=1000), 2.06(p=1200)							
-----							
Mg++	oth none	25°C	0.0	C	K1=2.38	B2= 2.20 1972PIa (15928)	224
Calculated from published osmotic coefficient data.							
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Mg++	con oth/un	25°C	0.0	U	K1=2.24	1971HPa (15929)	225
-----							
Mg++	con none	25°C	0.0	U	K1=2.17	1971ISb (15930)	226
Pressure: 200 kg/cm <sup>2</sup> . K1=2.13(p=400), 2.13(p=600), 2.11(p=800), 2.09(p=1000), 2.06(p=1200)							
-----							
Mg++	oth oth/un	0°C	0.0	U	K1=2.1	1971ISc (15931)	227
Method: freezing point; K1=1.72 to 2.4(depending upon ion size parameter)							
-----							
Mg++	ISE oth/un	1.7°C	0.66M	U	K1=1.18	1970KPa (15932)	228
Medium: synthetic seawater							
-----							
Mg++	cal none	25°C	0.0	C H		1970LAe (15933)	229
DH(K1)=5.3 kJ mol <sup>-1</sup> , DS(K1)=61.5 J K <sup>-1</sup> mol <sup>-1</sup> . Method: heat of dilution measurements.							
-----							
Mg++	sp oth/un	37°C	var	U	K1=1.3	1970NOa (15934)	230
-----							
Mg++	oth none	50°C	0.0	U T	K1=2.6	1969HEa (15935)	231
Method: estimated from literature data. K1=2.7 (60 C), 3.2 (100 C), 3.9 (150 C), 4.8 (200 C)							
-----							
Mg++	cal none	25°C	0.0	U H	K1=2.23	1969IEa (15936)	232
DH(K1)=2.1 kJ mol <sup>-1</sup> , DS=51.2 J K <sup>-1</sup> mol <sup>-1</sup>							
-----							
Mg++	con mixed	25°C	20%	U I	K1=2.65	1969SMd (15937)	233
Medium:w/w THF/H <sub>2</sub> O. 50% THF: K1=3.20; 0%: K1=2.07							
-----							
Mg++	EMF oth/un	25°C	0.70M	U	K1=1.01	1968KPa (15938)	234
Medium: synthetic seawater							
-----							
Mg++	ISE oth/un	35?°C	0.0	U	K1=1.97	1968PRd (15939)	235
-----							
Mg++	oth oth/un	25°C	0.0	U H	K1=2.25	1967HEb (15940)	236
From thermodynamic data. DH(K1)=20.4 kJ mol <sup>-1</sup> , DS=111.6 J K <sup>-1</sup> mol <sup>-1</sup>							
-----							
Mg++	sol oth/un	370°C	0.0	U T	K1=6.27	1967MAg (15941)	237
K1=2.13(0 C), 2.40(25 C), 2.63(50 C), 2.85(75 C), 3.06(100 C), 3.27(125 C), 3.50(150 C), 3.74(175 C), 4.00(200 C), 4.58(250 C), values for DH1, DS1 etc.							
-----							
Mg++	oth oth/un	25°C	0.0	U	K1=2.22	1966APc (15942)	238
K(Mg(aq)+Laq)=1.70 K(Mg(aq)+L(aq)=MgH <sub>2</sub> OL)=0.29							

Method:ultrasound absorption. Medium: 0 corr

$$K(MgH_2O_L = MgL) = -0.95$$

Method: sound absorption. Medium:0 corr.

Medium:  $\text{H}_2\text{NCHO}$ .  $K_1=4.50$  in 50% w/w  $\text{Me}_2\text{CO}$  in  $\text{H}_2\text{NCHO}$ , also other mixtures

Medium: 20% dioxan in H<sub>2</sub>NCHO. K<sub>1</sub>=2.33(25%), 2.65(30%), 3.09(35%), 3.58(40%), 4.39(50%), 5.38(60%), 6.42(70%)

$$K_{1out}/K_{1in}=0.8 \text{ and } \theta$$

Method:sound absorption. Medium:MgL

Method: freezing point

Method: freezing point

Medium: 50% EtOH. Also K1 for 5-45% EtOH

K1=2.19, I=0 corr.

Method: H electrode. K1=1.96(0 C), 2.20(20 C), 2.35(30 C), 2.40(35 C), 2.45(40 C), 2.49(45 C). DH(K1)=20.3 kJ mol<sup>-1</sup>, DS=110 J K<sup>-1</sup> mol<sup>-1</sup>(25 C)

Medium: 20% EtOH

Method: freezing point

Method ultrasonic data. K1=3.19(25% dioxan)

Method: freezing point, K1=1.98 to 2.39

Mg++	con	oth/un	18°C	0.0	U	K1=2.30	1955RSa (15957)	253
Mg++	EMF	oth/un	20°C	0.0	U T H	K1=2.29	1952JMb (15958)	254
Method: H electrode. K1=2.36(25 C), 2.43(30 C), 2.49(35 C). DH(K1)=23.8 kJ mol <sup>-1</sup> , DS=130 J K <sup>-1</sup> mol <sup>-1</sup> (25 C)								
Mg++	con	oth/un	25°C	0.0	U I	K1=2.21	1951DJa (15959)	255
also for dioxan/H2O and glycine/H2O mixtures								
Mg++	oth	oth/un	20°C	0.0	U	K1=2.20	1940MSa (15960)	256
Method: dielectric constant								
Mg++	con	oth/un	18°C	0.0	U	K1=2.11	1938DAa (15961)	257
Mg++	con	oth/un	18°C	0.0	U	K1=2.21	1927DAb (15962)	258
*****								
S2O3--		H2L	Thiosulfate			CAS 73686-28-7	(177)	
Thiosulfate;								
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Mg++	cal	R4N.X	25°C	0.50M	U		K1=0.53	1997MKa (16799) 259
DH(K1)=1.70 kJ mol <sup>-1</sup>								
Mg++	cal	R4N.X	25°C	0.50M	U	H	K1=0.56	1974ARa (16800) 260
DH=1.67 kJ mol <sup>-1</sup> .								
Mg++	con	alc/w	25°C	44%	U T		K1=3.23	1956BMa (16801) 261
Medium: 44% EtOH. K1=3.31(20 C), 3.36(30 C)								
Mg++	sp	alc/w	25°C	50%	U		K1=3.39	1956TMa (16802) 262
Medium: 50% EtOH								
Mg++	sp	none	25°C	0.0	U		K1=1.79	1955GMa (16803) 263
Mg++	sol	none	25°C	0.0	U		K1=1.84	1951DMb (16804) 264
*****								
SeO3--		H2L	Selenite				CAS 7783-00-8	(2391)
Selenite;								
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Mg++	con	oth/un	18°C	dil	U			1968RVa (17037) 265
Kso=-5.74								
Mg++	sol	oth/un	20°C	0.0	U			1966LSd (17038) 266
Kso=-5.36								
Mg++	sol	oth/un	20°C	var	U			1956CHe (17039) 267

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	EMF	NaClO4	25°C	1.0M	U			K1=4.17 K(Mg+HL)=0.64 K(Mg+2HL)=3.82	1974SSc (17185)	268

Mg++            oth none        0°C   0.0   U T                                  1973CHa (17186) 269  
Kso((MgO)2(SiO2)3(H2O)8)=-41.8  
Method: Estimated data.(((MgO)2(SiO2)34)9H2O)8,sepiolite). Ks=-41.0(10 C);  
-40.4(20 C); -40.1(25 C); -39.8(30 C); -39.2(40 C); -38.7(50 C); -38.2(60 C)

Mg++            oth none       70°C   0.0 U T                      1973CHa (17187) 270  
                                          Kso(MgO)2(SiO2)3(H2O)8=-37.8  
Method: Estimated data.(((MgO)2(SiO2)3(H2O)8,sepiolite). Ks=-37.5(80 C);  
-37.2(90 C);-36.9(100 C);-36.7(110 C);-36.5(120 C);-36.3(130 C);-36.1(140 C)

Mg++ sol oth/un 51°C 0.0 U T 1973CHa (17188) 271  
Ks((MgO)2(SiO2)3(H2O)8)=-38.8  
Ks=-37.5(70 C), -37.2(90 C)(well crystalline);  
-38.1(51 C), -37.2(70 C), -37.0(90 C)(poorly cryst)

Mg++            oth none       60°C   0.0   U T                                  1969HEa (17189) 272  
                                                                                                  \*Ks(MgSiO<sub>3</sub>+2H)=9.83  
 Method: Estimated data.  
 \*Ks=8.48(100 C); 7.14(150 C); 6.16(200C); 5.37(250 C); 4.70(300 C) (MgSiO<sub>3</sub>)

Mg++            oth none      60°C   0.0 U T                          1969HEa (17190) 273  
                                                                              \*Ks(Mg<sub>3</sub>Si<sub>4</sub>O<sub>10</sub>(OH)<sub>2</sub>+6H)=16.40  
Method: Estimated data  
\*Ks=14.17(100 C); 11.96(150 C); 10.53(200C); 9.42(250 C); 8.45(300 C)

Mg++            oth none     150°C   0.0   U T                                1969HEa (17191) 274  
                                                                                                  \*Ks(MgCa(SiO<sub>3</sub>)<sub>2</sub>+4H)=13.01  
 Method:est.data. \*Ks=17.41(60 C),15.23(100 C),11.41(200 C),10.03(250C).  
 Also \*Ks(Ca<sub>2</sub>Mg<sub>5</sub>Si<sub>8</sub>O<sub>22</sub>(OH)<sub>2</sub>+14H)=36.42,49.22(60 C),25.27(300 C).Also 100-250C

Mg++          oth none      150°C    0.0   U T                                 1969HEa (17192) 275  
                                                                                         \*Ks(Mg<sub>5</sub>Al<sub>2</sub>Si<sub>30</sub>O<sub>10</sub>(OH)<sub>8+16H</sub>)=43  
Method:est.data.(chlorite). \*Ks=61.90 (60 C),27.34 (300 C); montmorillonite  
2.75(60 C),-7.97(300 C). Also data at 60-300 C

Mg++ cal oth/un 25°C 0.0 U T 1967KBc (17193) 276  
K=9.5  
K=6.2(100C), -1.5(227 C), -7.7(427 C), -10.9(627 C). K: 2Mg2SiO4(s, forsterite)+

3H2O=Mg(OH)2(s,brucite)+Mg3Si2O5(OH)4(chrysotile)

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SiW11039----- H8L (2464)

alpha-Heterosilicon-polytungstate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	1.00M	U			K1=3.46 K(beta1 isomer)=3.29 K(beta2 isomer)=3.12 K(beta3 isomer)=2.98	1984COa (17233)	277

\*\*\*\*\*

TeO4-- H2L Tellurate (5750)

Tellurate(VI); TeO4-- or TeO2(OH)4--

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	sol	oth/un	20°C	dil	U			Ks(Mg3TeO6)=-16.6	1966KCa (17305)	278

Not corrected for reactions with H+?

\*\*\*\*\*

VO4--- H3L CAS 15457-75-7 (1586)

Vanadate; VO2(OH)3-- or polymers

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	NaClO4	25°C	1.00M	U			K(Mg+H7PV12036)=3.48	1975KIc (17375)	279

\*\*\*\*\*

CH2O2 HL Formic acid CAS 64-18-6 (37)

Methanoic acid; H.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	ISE	NaCl	25°C	0.03M	U	TIH		K1=0.75	1981EFa (17583)	280
At 35 C, I=0.045: K1=0.85; 45 C, I=0.45: 0.30; 25 C, I=0.45: 1.89										
DH=7.2 kJ mol-1, DS=41.8 J K-1 mol-1										

Mg++	sol	NaClO4	25°C	0.80M	U	I		K1=0.28	1977FHc (17584)	281
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Mg++	gl	NaNO3	30°C	0.40M	U			K1=0.34	1970BTa (17585)	282
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Mg++	gl	oth/un	25°C	0.0	U	T H		K1=1.43	1956NAa (17586)	283
Medium: 0 corr, K(35 C)=1.39, DH(K1)=7.4 kJ mol-1, DS=2.5 J K-1 mol-1										

Mg++	gl	oth/un	25°C	0.0	U			K1=1.43	1948SCa (17587)	284
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CH3O5P H3L Phosphonoformic CAS 4428-95-9 (5654)

Phosphonoformic Acid; O:P(OH)2.COOH



Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.10M	C		K1=4.11 K(Mg+HL)=1.61 K(MgL+H)=5.07	1994SCa (17698)	285

Mg++	gl	R4N.X	25°C	0.05M	C		K1=3.59 K(Mg+HL)=1.70	1981FHa (17699)	286
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Medium: 0.05 M Et4NClO4.

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CH4N2O	L	Urea	CAS 57-13-6	(2018)
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Carbamide, Urea; (H2N)2CO

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	NaClO4	22°C	4.00M	U		K1=-0.31 B2=-0.92	1970KLf (17713)	287

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CH4O3ClP	H2L	CAS 2565-58-4	(1973)
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Chloromethylphosphonic acid; Cl.CH2.PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	EMF	NaNO3	25°C	0.10M	U		K1=1.62	1970TNa (17927)	288

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CH4O6Cl2P2	H4L	CAS 10596-23-3	(2370)
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Dichloromethanediphosphonic acid; Cl2.C(PO3H2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	R4N.X	25°C	0.10M	C	H	K1=6.20 K(Mg+HL)=3.15	1993KLa (17951)	289

DH(K1)=12.8 kJ mol-1, DS=162 J K-1 mol-1

Mg++	gl	KCl	25°C	0.10M	U		K1=4.75 K(Mg+HL)=2.92	1976DGe (17952)	290
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CH5O3P	H2L	CAS 13590-71-1	(1752)
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Methylphosphonic acid; CH3.PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	0.10M	M		K1=1.86	1992SCa (18119)	291
Mg++	gl	KCl	25°C	0.10M	U		K1=2.22	1986NIa (18120)	292
Mg++	sp	oth/un	30°C	0.30M	U		K1=1.53	1975Kwa (18121)	293

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CH5O4P	H2L	CAS 2617-47-2	(1977)
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Hydroxymethylphosphonic acid; HO.CH2.PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	R4N.X	25°C	0.10M	U		K1=1.92	1972WFa (18145)	294
Medium: (CH3)4NCl									

\*\*\*\*\*

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
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Mg++	gl	NaNO3	25°C	0.10M	M		K1=1.67	1996SSa (18170)	295
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Mg++	sp	oth/un	30°C	0.30M	U		K1=1.34	1975KWa (18171)	296
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Mg++	sp	oth/un	20°C	0.10M	U T		K1=1.57	1965BRb (18172)	297
K1(65 C)=2.09									

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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
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Mg++	gl	KNO3	25°C	0.10M	C I	R	K1=2.00 K(Mg+HL)=1.3	2001PRa (18222)	298
------	----	------	------	-------	-----	---	-------------------------	-----------------	-----

IUPAC Recommended values

Mg++	gl	NaNO3	25°C	0.10M	C		K1=1.94 K(Mg+HL)=1.22 K(MgL+H)=9.36	1994SCa (18223)	299
------	----	-------	------	-------	---	--	-------------------------------------------	-----------------	-----

Mg++	gl	KNO3	25°C	0.10M	U		K1=2.03 B(MgHL)=11.38	1979WNb (18224)	300
------	----	------	------	-------	---	--	--------------------------	-----------------	-----

Mg++	gl	KNO3	25°C	0.10M	U		K1=2.04 B(MgHL)=11.35	1971WNC (18225)	301
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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
-------	-----	--------	------	------	-----	-------	-------------	-----------	--------

Mg++	gl	NaCl	37°C	0.15M	C		K1=5.68 K(MgL+H)=7.56 K(MgL+Mg)=2.68	1997ZJa (18269)	302
------	----	------	------	-------	---	--	--------------------------------------------	-----------------	-----

Mg++	gl	R4N.X	25°C	0.50M	U		K1=5.78 K(Mg+HL)=2.92	1968CIa (18270)	303
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Medium: (CH3)4NCl

Mg++	gl	KCl	25°C	0.10M	U		K1=6.38	1967KLa (18271)	304
------	----	-----	------	-------	---	--	---------	-----------------	-----

K(Mg+HL)=4.02

Mg++ gl oth/un 25°C 0.10M U K1=5.51 1963KEa (18272) 305  
K(Mg+HL)=2.76  
K(Mg+MgL)=2.60

Mg++ gl R4N.X 25°C 1.0M U T H K1=4.82 1962IMb (18273) 306  
K(Mg+HL)=2.97

Medium: Me4NBr. (50 C):K1=5.07, K=3.33

At I=o corr: K1=6.3, DH(K1)=18.4 kJ mol<sup>-1</sup>, DS=142 J K<sup>-1</sup> mol<sup>-1</sup>

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CH607P2 H3L CAS 56399-35-0 (7664)

Methyldiphosphoric acid;

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

Mg++ gl NaNO3 25°C 0.10M M K1=3.29 1999SSa (18308) 307

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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

Mg++ oth NaCl 25°C 0.15M U T K1=2.18 1993GMa (18757) 308

Method: Coulometric titration. K1=2.39 (37 C)

Mg++ sol oth/un 37°C dil C I K1=3.604 1989SIb (18758) 309

Medium: 0.001-0.008 M MgCl2 with 0 or 0.15 M NaCl.

Mg++ gl NaClO4 30°C 1.0M U K1=2.65 1988GMd (18759) 310

Mg++ gl KNO3 35°C 0.10M C M K1=4.65 1985RRc (18760) 311

B(MgL(cytidine))=8.81

Mg++ gl KNO3 35°C 0.10M C K1=4.65 1985RRh (18761) 312

Mg++ gl oth/un 37°C 0.10M U I K1=2.75 1982DMa (18762) 313

Medium: Et4NI; ionic strength range: 0.03-0.5.

Mg++ sol NaClO4 25°C 0.80M U K1=1.62 1977FHc (18763) 314

Mg++ dis NaClO4 20°C 0.10M U K1=2.39 1963STc (18764) 315

Mg++ oth KCl 23°C 0.20M U K1=2.61 1962AMa (18765) 316

Method: interferometer. Medium: 0.2 KCl, 0.1 (HOCH2)3CNH2

Mg++ ISE oth/un 25°C 0.09M U I B2=4.24 1959TVa (18766) 317

B2=4.54(I=0.03-0.5)

Mg++ EMF NaNO3 20°C 0.10M U K1=2.76 1957SAb (18767) 318

Mg++	sol	oth/un	25°C	0.0	U		B2=4.38	1951BAa (18768)	319
Mg++	sol	oth/un	37°C	0.62M	U		K1=2.28	1939PEa (18769)	320
By conductivity, K1=2.28									
Mg++	EMF	KCl	25°C	0.20M	U		K1=2.55	1938CKa (18770)	321
Method: H electrode									
Mg++	EMF	oth/un	?	0.07M	U		K1=2.65	1928SIa (18771)	322
Mg++	con	oth/un	18°C	0.0	U		K1=3.43	1927DAb (18772)	323
*****									
C2H3NO4		HL					CAS 625-75-2	(2968)	
Nitroacetic acid; O2N.CH2.COOH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	kin	oth/un	18°C	0.20M	U		K1=-0.19	1949PEa (19205)	324
Medium: Ba(NO3)2									
*****									
C2H3O2Cl		HL		Chloroacetic			CAS 79-11-8	(34)	
Chloroethanoic acid; ClCH2.COOH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaNO3	30°C	0.40M	U		K1=0.23	1970BTa (19354)	325
*****									
C2H4O2		HL		Acetic acid			CAS 64-19-7	(36)	
Ethanoic acid; CH3.COOH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	oth	none	25°C	0	U T H		K1=1.70	1994SHd (19864)	326
Data also at 35, 45 55 C. DH(K1)=3.3 KJ mol-1, DS=43.5 J K-1 mol-1									
Mg++	oth	NaCl	25°C	0.15M	U T		K1=0.46	1993GMa (19865)	327
Method: Coulometric titration. K1=0.58 (37 C)									
Mg++	sol	oth/un	80°C	var	U		K1=1.3	1991FEa (19866)	328
Brucite(Mg(OH)2) solubility measurements Constant at I=0									
Mg++	gl	alc/w	25°C	100%	M		K1=4.4 B2=6.6	1988PPa (19867)	329
Medium: MeOH									
Mg++	gl	R4N.X	25°C	0.16M	U I		K1=0.55	1985RSa (19868)	330
K1=0.64 (I=0.04); 0.55 (0.25); 0.61 (0.49); 0.71 (1.00)									
Mg++	ISE	NaCl	25°C	0.03M	U TIH		K1=0.81	1981EFa (19869)	331
At 35 C, I=0.045; K1=0.85; 45 C, I=0.45; 0.40; 45 C, I=0.45; 1.10									

DH=5.1 kJ mol<sup>-1</sup>, DS=36.8 J K<sup>-1</sup> mol<sup>-1</sup>

Mg++ ISE NaCl 25°C 0.10M C T K1=0.737 1979EFc (19870) 332  
Method: divalent ion selective electrode. Data for 15-35 C and for  
I=0.025-0.206 M NaCl. At I=0, K1=1.04.

Mg++ sol NaCl04 25°C 0.80M U I K1=0.26 1977FHc (19871) 333

Mg++ gl NaNO3 30°C 0.40M U K1=0.47 1970BTa (19872) 334

Mg++ gl none 25°C 0.0 U K1=1.28 1964AMa (19873) 335

Mg++ gl non-aq 25°C 100% U K2=7.22 1964KLa (19874) 336  
Medium: ethanoic acid

Mg++ sp non-aq 25°C 100% U B2=9.92 1961PSa (19875) 337  
Medium: ethanoic acid

Mg++ gl none 25°C 0.0 U T H K1=1.25 1956NAa (19876) 338  
Medium: 0 corr. K1(35 C)=1.21; DH(K1)=-6.4 kJ mol<sup>-1</sup>, DS=2.5 J K<sup>-1</sup> mol<sup>-1</sup>

Mg++ sol oth/un 25°C ->0 U K1=0.82 1956NAa (19877) 339

Mg++ EMF KCl 20°C 0.20M U K1=0.51 1938CKa (19878) 340

\*\*\*\*\*  
C2H4O3 HL Glycolic acid CAS 79-14-1 (33)  
2-Hydroxyethanoic acid; HO.CH2.COOH

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

Mg++ gl NaCl04 25°C 0.50M C K1=1.03 1995PLa (20489) 341

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

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

Mg++ gl NaNO3 25°C 0.10M C M K1=3.45 2000KAb (21473) 342  
K(MgA+L)=3.92  
B(MgAL)=6.42

H2A=Dipicolinic acid.

Mg++ gl oth/un 25°C 0.50M C K1=1.68 1995CDc (21474) 343  
B(MgHL)=10.05

Medium: 0.50 M MgCl2.

Mg++ gl NaNO3 25°C 0.10M C K1=3.30 1989GAb (21475) 344

Mg++ gl NaCl04 37°C 0.15M C T K1=1.979 1987BBd (21476) 345  
B(MgHL)=10.879

B(MgH2L2)=21.614

B(MgH-1L)=-8.735

Mg++	sp	oth/un	25°C	1.0M	U		K1=1.17		1987HAa (21477)	346
Mg++	gl	KNO3	35°C	0.10M	C	M	K1=3.40 K(Mg+HL+cytidine)=8.19 K(MgL(cytidine)+H)=3.59		1985RRc (21478)	347
Mg++	gl	KNO3	35°C	0.10M	C		K1=3.40		1985RRh (21479)	348
Mg++	gl	NaCl	20°C	0.15M	U	M	K1=2.33		1983VDb (21480)	349
Mg++	EMF	NaClO4	25°C	3.0M	C		K1=1.53	B2= 2.26	1982BPc (21481)	350
Method: Pt/H2 electrode.										
Mg++	gl	KCl	25°C	0.50M	U	M	K1=1.34 B(MgLA)=4.77		1969HLa (21482)	351
HA=salicylaldehyde										
Mg++	gl	KCl	0°C	0.09M	U	T	K1=2.12		1957MMa (21483)	352
K1=2.23(30 C)										
Mg++	gl	diox/w	30°C	75%	U		K1=4.8	B2=8.0	1954UFa (21484)	353
Mg++	gl	oth/un	25°C	->0	U		K1=3.44		1951MOa (21485)	354
Mg++	gl	oth/un	25°C	0.01M	U		K1=3.45	B2=6.46	1949MMa (21486)	355
*****										
C2H5NO2										

Ionic strength=0.45-0.75

-----  
Mg++ sp KCl 25°C 1.00M U T K1=1.88 1970BSg (21877) 361  
4 C: K1=1.48. pH 8 (tris buffer)  
-----

Mg++ kin oth/un 39°C 0.60M U K1=0.76 19660Ja (21878) 362  
\*\*\*\*\*  
C2H5O5P H3L CAS 4408-78-0 (4225)  
Phosphonoethanoic acid; H00C.CH2.PO3H2  
-----

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

Mg++ gl R4N.X 25°C 0.05M C H K1=4.50 1981FHa (21888) 363  
K(Mg+HL)=2.60

Medium: 0.05 M Et4NClO4. Data for 0.10-0.25 M.

At I=0.0 M, K1=5.58, DH(K1)=12.6 kJ mol<sup>-1</sup>, DS(K1)=146 J K<sup>-1</sup> mol<sup>-1</sup>.

\*\*\*\*\*  
C2H6OS L DMSO CAS 67-68-5 (329)  
Dimethylsulfoxide; (CH3)2.SO  
-----

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

Mg++ ISE non-aq 25°C 100% M K1=2.45 B2= 3.67 1999NMa (22089) 364  
B3=4.96  
B4=5.13

Method: ISE based on benzo-12-crown-4 coupled to polyacrylamide.

Medium: propylenecarbonate, 0.01 M Et4NClO4.  
-----

Mg++ ISE non-aq 25°C 100% M K1=2.65 B2=3.72 1988NHa (22090) 365  
Medium: MeCN, 0.01 M Et4NClO4  
\*\*\*\*\*

C2H7NS HL CAS 60-23-1 (588)  
2-Aminoethanethiol; H2N.CH2.CH2.SH  
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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----

Mg++ gl KNO3 25°C 0.10M U K1=2.30 1963TAa (22486) 366  
\*\*\*\*\*

C2H7O3P H2L CAS 71778-99-9 (1978)  
Ethylphosphonic acid; CH3.CH2.PO3H2  
-----

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

Mg++ gl NaNO3 25°C 0.10M M K1=1.85 1992SCa (22565) 367  
\*\*\*\*\*

C2H7O3P HL CAS 868-85-9 (1756)  
Methylphosphonic acid methyl ester; CH3P(O)(OH)(OCH3)  
-----

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

Mg++ sp oth/un 30°C 0.30M U K1=0.48 1975KWa (22572) 368  
\*\*\*\*\*

C2H7O4P HL CAS 813-78-5 (1754)  
Dimethylphosphoric acid; (CH3O)2P(O)OH

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

Mg++ sp oth/un 30°C 0.30M U K1=0.78 1975KWa (22574) 369  
\*\*\*\*\*

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  
-----

Mg++ gl KNO3 25°C 0.10M U K1=2.00 1979WNb (22611) 370  
B(MgHL)=11.54

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Mg++ gl KNO3 25°C 0.20M C K1=1.84 1978MAb (22612) 371  
K(Mg+HL)=1.27  
\*\*\*\*\*

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  
-----

Mg++ gl KNO3 25°C 0.10M U K1=2.13 1979WNb (22633) 372  
B(MgHL)=12.48

-----  
Mg++ gl KNO3 25°C 0.20M C K1=2.24 1978MAb (22634) 373  
K(Mg+HL)=1.37  
\*\*\*\*\*

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  
-----

Mg++ gl KNO3 25°C 0.20M C K1=1.56 1978MAb (22666) 374  
K(Mg+HL)=1.17

-----  
Mg++ gl KNO3 25°C 0.20M C K1=1.56 1978MAc (22667) 375  
K(Mg+HL)=1.17  
K(MgL+H)=9.73

-----  
Mg++ gl R4N.X 20°C 0.10M U T K1=2.2 1965HFb (22668) 376  
K(Mg+HL)=1.5

Medium: (C3H7)4NI

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Mg++ gl KCl 25°C 0.15M U K1=1.70 19620Sa (22669) 377  
K(Mg+HL)=1.23  
\*\*\*\*\*



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
Mg++	gl	NaCl	25°C	0.0	C		K1=0.38 K(Mg+HL)=-0.15	1999SFc (23124)	378

Extrapolated from data for 0.03-0.96 M NaCl using the Pitzer equation.

Mg++	sp	alc/w	25°C	95%	U		K1=1.31	1993GSa (23125)	379
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Medium: 95% w/w EtOH/H2O, 0.05 M Et4NClO4, by competitive spectrophotometry

Mg++	gl	diox/w	30°C	75%	U		K1=1.8	1954UFa (23126)	380
Mg++	EMF	KCl	30°C	1.0M	U		K1=0.37	1941BJa (23127)	381

Method: H electrode

\*\*\*\*\*  
 C2H8O6P2 H4L CAS 6145-31-9 (2579)  
 1,2-Ethylenediphosphonic acid; H2O3P.CH2.CH2.PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	R4N.X	25°C	1.0M	U		K1=2.85 K(Mg+HL)=2.67	1962IMb (23259)	382

Medium: Me4NBr  
 \*\*\*\*\*  
 C2H8O6P2 H4L CAS 6145-33-1 (3543)  
 Ethane-1,1-diphosphonic acid; CH3.CH(PO3H2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	R4N.X	25°C	0.50M	U		K1=6.26 K(Mg+HL)=2.99	1968CIa (23265)	383

Medium: (CH3)4NCl  
 \*\*\*\*\*  
 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
Mg++	cal	none	25°C	0	U	H		1998KKa (23345)	384

K(Mg+L+OH)=10.85

DH(Mg+L+OH)= -65.5 kJ/mol

Mg++	gl	NaCl	37°C	0.15M	C		K1=6.03 K(MgL+H)=7.48 k(MgL+OH)=3.24 K(MgL+Mg)=3.67	1997ZJa (23346)	385
------	----	------	------	-------	---	--	--------------------------------------------------------------	-----------------	-----

Mg++	cal	oth/un	25°C	0.04M	U	T	K1=7.7	1986VKa (23347)	386
------	-----	--------	------	-------	---	---	--------	-----------------	-----

B(Mg2L)=11.3  
DH1=13.5 kJ mol-1, DS1=192 J K-1 mol-1; DH(M+ML)=23.5, DS(M+ML)=148

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Mg++ cal R4N.X 25°C 0.50M U H K1=6.40 1986VKb (23348) 387  
Medium: Et4N.Cl DH1=5.1 kJ mol-1, DS1=140 J K-1 mol-1

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Mg++ gl NaCl 25°C 0.02M U K1=7.95 1986VZa (23349) 388  
K(Mg+HL)=4.10  
B(Mg2L)=10.96

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Mg++ cal KCl 25°C 0.02M U T K(Mg+HL)=3.42 1984VKd (23350) 389  
DH=14.48 kJ mol-1; DS=114 J mol-1 K-1.

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Mg++ gl KNO3 25°C 0.10M U K1=4.49 1980ZRc (23351) 390  
K(Mg+HL)=3.31  
K(Mg+H2L)=1.39

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Mg++ gl KCl 25°C 0.10M U K1=6.17 1976DGe (23352) 391  
K(Mg+HL)=3.03

---

Mg++ gl R4N.X 25°C 0.10M U K1=7.28 1972WFa (23353) 392  
K(Mg+HL)=3.70  
B(2Mg+L)=10.7  
Medium: (CH3)4NCl

---

Mg++ gl R4N.X 25°C 0.50M U K1=6.39 1968CIa (23354) 393  
K(Mg+HL)=3.32  
Medium: (CH3)4NCl

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Mg++ gl KCl 25°C 0.10M U K1=6.55 1967KLa (23355) 394  
K(2Mg+H-1L)=14.95  
K(2Mg+L)=10.50

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C2H9NO6P2 H4L IDPA CAS 32545-63-4 (1335)  
Imino-N,N-bis(methylenephosphonic acid); HN(CH2PO3H2)2

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.20M	C		K1=3.47 B(MgHL)=12.70 B(MgH2L)=17.08 B(MgH-1L)=-8.29	1999MKa (23449)	395
Mg++	gl	KNO3	25°C	0.1M	C		K1=4.25 B(MgHL)=13.50 B(MgH2L)=18.74 K(Mg(OH)L+H)=7.1	1985MMa (23450)	396

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

1,3-Diazole, imidazole; C<sub>3</sub>H<sub>4</sub>N<sub>2</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaNO <sub>3</sub>	25°C	0.50M	M		K <sub>1</sub> =0.16	1998KSa (23857)	397
Mg++	gl	oth/un	25°C	0.15M	C	I	K <sub>1</sub> =0.10	1989DDb (23858)	398
Medium: MgCl <sub>2</sub> . Also data for I=0.3-1.0 M.									
Mg++	sp	non-aq	21°C	100%	U	M	K(MgA+L)=4.98 K(MgA+2L)=5.19	1983LKa (23859)	399

Medium: C<sub>2</sub>H<sub>4</sub>Cl<sub>2</sub>. A=tetraphenylporphin

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C<sub>3</sub>H<sub>4</sub>O<sub>3</sub> HL Pyruvic acid CAS 127-17-3 (1152)  
2-Oxopropanoic acid; CH<sub>3</sub>.CO.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaClO <sub>4</sub>	30°C	1.0M	U	M	K <sub>1</sub> =2.05 K(Mg(ox)+L)=3.40 K(Mg(cit)+L)=2.50	1988GMd (24043)	400

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C<sub>3</sub>H<sub>4</sub>O<sub>4</sub> H<sub>2</sub>L Malonic acid CAS 141-82-2 (79)  
Propanedioic acid; CH<sub>2</sub>(COOH)<sub>2</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	ix	KNO <sub>3</sub>	25°C	0.10M	U		K <sub>1</sub> =2.045	1995RKc (24371)	401
At I=0.15 M K <sub>1</sub> =1.970; at 0.20 M K <sub>1</sub> =1.918									
Mg++	gl	NaCl	25°C	1.00M	C		K <sub>1</sub> =1.73	1988BSa (24372)	402
Mg++	sp	none	25°C	0.0	U	T	K <sub>1</sub> =2.86	1976K0a (24373)	403
Also data at 15,30,35 C. By competition with bromocresol purple									
Mg++	gl	NaClO <sub>4</sub>	25°C	0.10M	U		K <sub>1</sub> =2.11 K(Mg+HL)=0.96	19680Va (24374)	404
Mg++	gl	NaClO <sub>4</sub>	20°C	0.10M	U		K <sub>1</sub> =1.95 K(Mg+HL)=0.83	1963CAa (24375)	405
Mg++	EMF	oth/un	25°C	->0	U		K <sub>1</sub> =2.84	1952EMa (24376)	406
Method: H electrode. d(logK <sub>1</sub> )/dT=0.008									
Mg++	EMF	oth/un	25°C	0.04M	U		K <sub>1</sub> =2.85	1949SDa (24377)	407
Mg++	EMF	KCl	25°C	0.20M	U		K <sub>1</sub> =1.91 K(Mg+HL)=0.47	1938CKa (24378)	408

Mg++	con	oth/un	25°C	->0	U	K1=2.43	1932MDa (24379)	409
Mg++	gl	oth/un	?	0.07M	U	K1=2.06	1928SIa (24380)	410
*****								
C3H4O5		H2L			Tartronic acid	CAS 80-69-3	(839)	
Hydroxypropanedioic acid; HO.CH(COOH)2								
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Mg++	gl	NaCl04	20°C	0.10M	U		K1=2.17 K(Mg+HL)=1.23	1963CAa (24614) 411
*****								
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
Mg++	oth	none	25°C	0	U T H		K1=2.36	1994SHd (24976) 412
Data also at 35, 45 55 C. DH(K1)=1.9 KJ mol-1, DS=51.5 J K-1 mol-1								
Mg++	ISE	NaCl	25°C	0.03M	U TIH		K1=1.01	1981EFa (24977) 413
At 35 C, I=0.045: K1=1.10; 45 C, I=0.45: 0.48; 25 C, I=0.45: 1.12								
DH=4.3 kJ mol-1, DS=36.8 J K-1 mol-1								
Mg++	sol	NaCl04	25°C	0.80M	U I		K1=0.12	1977FHc (24978) 414
Mg++	EMF	KCl	20°C	0.20M	U		K1=0.54	1938CKa (24979) 415
Method: H electrode								
*****								
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
Mg++	gl	NaCl04	25°C	0.5M	C		K1=0.93	1995PLa (25384) 416
Mg++	oth	NaCl	25°C	0.15M	U T		K1=0.61	1993GMa (25385) 417
Method: Coulometric titration. K1=0.64 (37 C)								
Mg++	gl	NaCl04	37°C	0.15M	C		K1=1.235	1987BBd (25386) 418
Mg++	EMF	oth/un	25°C	1.0M	U		K1=0.73 B2=1.30	1965VTa (25387) 419
Method: quinhydrone electrode.								
Mg++	EMF	oth/un	25°C	->0	U		K1=1.37	1954DMb (25388) 420
Method: H electrode								
Mg++	EMF	KCl	20°C	0.20M	U		K1=0.93	1938CKa (25389) 421
Method: H electrode								
*****								

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

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

Mg++            EMF KCl      20°C 0.20M U            K1=0.86            1938CKa (25629) 422

Method: H electrode

\*\*\*\*\*

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  
-----

Mg++            ISE non-aq 25°C 100% M            K1=2.21    B2= 3.29    1999NMa (25653) 423

B3=3.57

B4=3.72

Method: ISE based on benzo-12-crown-4 coupled to polyacrylamide.

Medium: propylenecarbonate, 0.01 M Et4NClO4.

-----  
Mg++            ISE non-aq 25°C 100% M            K1=2.32    B2=3.34    1988NHa (25654) 424

Medium: MeCN, 0.01 M Et4NClO4

\*\*\*\*\*

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  
-----

Mg++            gl    oth/un 25°C ->0 U            T K1=1.96            1951MOa (26136) 425

\*\*\*\*\*

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  
-----

Mg++            gl    KNO3    25°C 0.50M C            K1=1.38            2003FCa (26445) 426

for 1.0 M KNO3 K1=1.53; for 1.5 M KNO3 K1=1.65;

\*\*\*\*\*

C3H7NO2                      HL      DL-Alanine                      CAS 302-72-7    (189)

DL-2-Aminopropanoic acid; H2N.CH(CH3).COOH

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

Mg++            gl    NaCl      20°C 0.15M U            M    K1=1.96            1983VDb (26539) 427

\*\*\*\*\*

C3H7NO2                      HL                                      (6927)

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

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

Mg++            gl    KCl      25°C 0.20M C            K1=2.63    B2= 3.90    2000FEc (26619) 428

\*\*\*\*\*

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
Mg++	gl	KN03	25°C	0.10M	U	I	K1=3.37	1990RAB (27111)	429
Data also for 10% w/w EtOH/H2O (K1= 3.63) and 25% (K1=3.88)									

Mg++	gl	NaCl	25°C	3.00M	M		K1=1.03	1988BFa (27112)	430
Mg++	gl	NaCl	25°C	3.00M	C		K1=1.03	1985PBb (27113)	431
D-, L- and DL-serine studied.									

\*\*\*\*\*

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
Mg++	gl	NaCl	20°C	0.15M	U	M	K1=1.47	1983VDb (27231)	432

\*\*\*\*\*

C3H7O4P                      H2L                      CAS 6913-02-6    (1755)  
Prop-2-onephosphonic acid; CH3.CO.CH2.PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	oth/un	30°C	0.30M	U	I	K1=1.30	1975KWa (27293)	433
K1=2.54 using an ISE at I=0.01, 23 C									

\*\*\*\*\*

C3H7O5P                      H3L                      CAS 5926-41-4    (3549)  
2-Phosphonopropanoic acid; CH3.CH(PO3H2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	oth/un	37°C	0.07M	U		K1=2.3	1970NOa (27300)	434
Medium: tris buffer									

Mg++	gl	R4N.X	25°C	0.25M	U		K1=2.26	1957WBa (27301)	435
Medium: 0.1-0.4 M (C3H7)4NI									

\*\*\*\*\*

C3H7O5P                      H3L                      CAS 5962-42-5    (522)  
3-Phosphonopropanoic acid; HOOCH2.CH2.PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	R4N.X	25°C	0.05M	C		K1=2.28	1981FHa (27310)	436
							K(Mg+HL)=1.70		

Medium: 0.05 M Et4NClO4.

\*\*\*\*\*

C3H7O6P                      H2L                      (6830)

3-Hydroxy-2-oxopropylphosphoric acid; CH<sub>2</sub>(OH).CO.CH<sub>2</sub>.OP<sub>3</sub>H<sub>2</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	NaN <sub>3</sub>	25°C	0.10M	U			K <sub>1</sub> =1.57	1992LCb (27321)	437
*****										
C <sub>3</sub> H <sub>7</sub> O <sub>7</sub> P			H <sub>3</sub> L					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
Mg++	gl	R <sub>4</sub> N.X	25°C	0.25M	U			K <sub>1</sub> =2.45	1957WBa (27330)	438
Medium: 0.1-0.4 M (C <sub>3</sub> H <sub>7</sub> ) <sub>4</sub> NI										
*****										
C <sub>3</sub> H <sub>8</sub> N <sub>5</sub> O <sub>5</sub> P			H <sub>3</sub> L					3-Phosphono-Ala CAS 20263-06-3	(1509)	
2-Amino-3-phosphonatopropanoic acid; (H <sub>2</sub> O <sub>3</sub> P)CH <sub>2</sub> .CH(NH <sub>2</sub> ).COOH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KN <sub>3</sub>	25°C	0.20M	C			K <sub>1</sub> =2.59 K(Mg+HL)=1.00	1978MAb (27349)	439
*****										
C <sub>3</sub> H <sub>8</sub> N <sub>5</sub> O <sub>5</sub> P			H <sub>3</sub> L					Glyphosate CAS 1071-83-6	(1617)	
N-(Phosphonomethyl)glycine; H <sub>2</sub> O <sub>3</sub> P.CH <sub>2</sub> .NH.CH <sub>2</sub> .COOH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.10M	C	I	R	K <sub>1</sub> =3.3 B(MgHL)=12.1	2001PRa (27397)	440
IUPAC Recommended value										

Mg++	gl	NaCl	25°C	0.5M	C			K <sub>1</sub> =2.52 B(MgHL)=11.15 B(MgH <sub>2</sub> L)=15.73 B(Mg <sub>2</sub> L)=3.49	1996AMa (27398)	441
------	----	------	------	------	---	--	--	---------------------------------------------------------------------------------------------------	-----------------	-----

Mg++	gl	KN <sub>3</sub>	25°C	0.1M	C			K <sub>1</sub> =3.31 B <sub>2</sub> =5.47 B(MgHL)=12.12	1985MMa (27399)	442
------	----	-----------------	------	------	---	--	--	------------------------------------------------------------	-----------------	-----

Mg++	gl	KN <sub>3</sub>	25°C	0.10M	M			K <sub>1</sub> =3.25 K(MgL+OH)=2.8	1978LCa (27400)	443
------	----	-----------------	------	-------	---	--	--	---------------------------------------	-----------------	-----

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C <sub>3</sub> H <sub>8</sub> N <sub>6</sub> O <sub>6</sub> P			H <sub>3</sub> L					Phosphoserine CAS 17885-08-4	(1865)	
Serine dihydrogenphosphate, O-Phosphoserine; NH <sub>2</sub> .CH(CH <sub>2</sub> .OP <sub>3</sub> H <sub>2</sub> ).COOH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KN <sub>3</sub>	25°C	0.20M	C			K <sub>1</sub> =2.00 K(Mg+HL)=1.30	1978MAb (27457)	444





B(MgHL)=12.57

\*\*\*\*\*

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  
-----

Mg++            gl    KNO3    25°C 0.10M C            K1=2.0            1993SKc (28099) 455

\*\*\*\*\*

C3H10O6P2                      H4L                      CAS 29712-42-3 (3554)  
Propane-1,2-diphosphonic acid; CH3.CH(PO3H2).CH2(PO3H2)

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

Mg++            gl    KCl       20°C 0.10M U            K1=3.04            1951SRa (28386) 456

K(Mg+HL)=2.08

\*\*\*\*\*

C3H10O6P2                      H4L                      CAS 4671-82-3 (3555)  
Propane-1,3-diphosphonic acid; (H2O3P).CH2.CH2.CH2(PO3H2)

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

Mg++            gl    oth/un 25°C 0.10M U            K1=2.8            1962IMb (28392) 457

Mg++            gl    KCl       20°C 0.10M U            K1=2.84            1951SRa (28393) 458

K(Mg+HL)=2.08

\*\*\*\*\*

C3H10O6P2                      H4L                      (3556)  
Propane-2,2-diphosphonic acid; CH3.C(PO3H2)2.CH3

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

Mg++            gl    R4N.X    25°C 0.50M U            K1=6.83            1968CIa (28398) 459

K(Mg+HL)=3.33

Medium: Me4NCl

\*\*\*\*\*

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  
-----

Mg++            gl    KCl       25°C 0.20M C            K1=4.74            1999MKa (28442) 460

B(MgHL)=14.16

B(MgH2L)=18.72

B(MgH-1L)=-7.42

-----  
Mg++            gl    KNO3    25°C 0.10M C            K1=5.13            1993SKc (28443) 461

K(MgL+H)=9.72

K(MgHL+H)=5.0

-----

Mg++ gl NaClO4 25°C 0.10M U K1=5.00 1988Lda (28444) 462  
\*\*\*\*\*

C3H11NO7P2 H4L CAS 40291-99-9 (1346)  
1-Hydroxy-3-aminopropyl-1,1-diphosphonic acid; (H2O3P)2C(OH).CH2.CH2.NH2

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

Mg++ gl NaCl 37°C 0.15M C 1999ZJa (28458) 463  
K(Mg+H+L)=16.81  
K(Mg2L+H)=9.28  
K(2Mg+L)=10.85  
K(MgHL+H)=6.86  
\*\*\*\*\*

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  
-----

Mg++ gl KNO3 25°C 0.10M C H K1=7.54 1993SMa (28547) 464  
K(MgL+H)=9.42  
K(MgHL+H)=6.10  
DH(K1)=25.8, DH(MgHL)=-48.6, DH(MgH2L)=8.8 kJ mol-1.

-----  
Mg++ gl KNO3 25°C 0.10M C K1=7.52 1987SAa (28548) 465  
K(MgL+H)=9.42  
K(MgHL+H)=6.10  
K(MgH2L+H)=4.8  
-----

Mg++ cal none 25°C 0.0 U TIH 1987VOa (28549) 466  
DH(K1)=-39.7 kJ mol-1, DH(Mg+HL)=-30.2  
-----

Mg++ gl KNO3 25°C 1.0M U K1=6.49 1967CCb (28550) 467  
K(Mg+HL)=3.24  
K(Mg+H2L)=2.7  
K(Mg+H3L)=1.9  
\*\*\*\*\*

C3H12NO10P3 H6L CAS 15834-10-3 (3559)  
Nitrilotri(methylphosphonic acid) N-oxide; O-N(CH2.PO3H2)3

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

Mg++ gl KNO3 25°C 1.0M U K1=8.3 1967CCc (28604) 468  
K(Mg+HL)=3.6  
K(Mg+H2L)=2.1  
K(Mg+H3L)=1.05  
\*\*\*\*\*

C3H12O10P4 H6L (7924)  
Tris(dihydroxy-phosphonylmethyl)phosphineoxide;

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

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-----
Mg++      gl  R4N.X  20°C 0.10M C      K1=7.52      1977ANb (28610) 469
                                     K(MgL+Mg)=3.8
                                     K(MgHL+H)=6.12
                                     K(MgL+H)=7.96
                                     K(Mg+H2L)=3.56

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

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++      gl  diox/w 30°C 50% U      K1=2.63      1973CSb (28718) 470
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

```

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++      sp  NaClO4 20°C 0.20M U      K1=3.10      1981LDa (28758) 471

```

```

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

```

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++      gl  KNO3   45°C 0.10M U      K1=2.6      1974KKa (28856) 472

```

```

*****
C4H4N2S      HL   CAS 1450-85-7 (1521)
2-Mercapto-1,3-diazine, 2-Mercaptopyrimidine; C4H3N2.SH

```

```

-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++      gl  KNO3   45°C 0.10M C      K1=2.76      1986KZa (28936) 473

```

```

*****
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
-----
Mg++      gl  KNO3   30°C 0.10M U      K1=5.1      1983SKa (28952) 474

```

```

-----
Mg++      gl  KNO3   45°C 0.10M U      K1=3.9      1973TKa (28953) 475
*****

```

```

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
-----

```

Mg++ sp none 25°C 0.0 U T K1=2.30 1976K0a (29045) 476  
Also data at 15,30,35 C. Determined colourimetrically

\*\*\*\*\*

C4H4O4F2 H2L CAS 665-31-6 (515)  
2,2-Difluorosuccinic acid; HOOCCF2CH2COOH

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

Mg++ con none 25°C 0.0 U K1=2.31 1984TWa (29234) 477

\*\*\*\*\*

C4H4O5 H2L Oxobutanedioic CAS 328-42-7 (1733)  
2-Oxosuccinic acid, Oxalacetic acid; HOOCCOCH2COOH

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

Mg++ kin oth/un 25°C 0.27M U K1=6.0 1987TLA (29259) 478  
Result given for enol form. For ligand hydrate, K1=5.4

-----  
Mg++ kin KCl 25°C 0.50M U I K1=0.81 1982BLb (29260) 479  
K(2Mg+L=Mg2H-1L+H)=-6.4  
K(MgL=MgH-1L+H)=-8.6  
K(MgL(keto)=MgL(enol))=-0.5

Also in 50% dioxan/H2O

-----  
Mg++ gl KCl 25°C 0.10M U K1=6.27 B2=11.09 1964TGA (29261) 480  
K(Mg+HL)=1.96

k=keto form, e=enol. K(Mg+HL(k))=1.91, K(Mg+HL(e))=2.20, K(MgHL(e)=MgHL(k))=0.49 by spectrophotometry

\*\*\*\*\*

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

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

Mg++ gl NaNO3 25°C 0.50M M K1=0.13 1998KSA (29334) 481

\*\*\*\*\*

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

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

Mg++ gl KNO3 35°C 0.10M U M 1986RRe (29406) 482

K(Mg+HL+HA)=8.29  
K(Mg(HL)A+H)=3.30  
K(Mg+HL+D)=8.07  
K(Mg+HL+HC)=6.91

HA is glycine; H2D is oxalic acid; C is histamine.  
K(Mg(HL)C+H)=3.06

-----  
Mg++ gl KNO3 35°C 0.10M U T H 1983KSA (29407) 483

K(Mg+HL)=1.76  
K(Mg+2HL)=3.24

-----  
Mg++ gl KNO3 30°C 0.10M U K1=2.2 1983SKa (29408) 484  
-----

Mg++ gl KNO3 45°C 0.10M U K1=2.7 1974KKa (29409) 485  
K(Mg+HL)=2.4

\*\*\*\*\*  
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  
-----

Mg++ gl NaNO3 25°C 0.50M M K1=0.12 1998KSa (29574) 486  
-----

\*\*\*\*\*  
C4H6N4O L CAS 56-06-4 (5994)  
2,4-Diamino-6-hydroxypyrimidine;  
-----

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

Mg++ gl KNO3 45°C 0.10M C K1=2.7 1986KZa (29671) 487  
-----

\*\*\*\*\*  
C4H6N4O L CAS 1672-50-0 (5993)  
4,5-Diamino-6-hydroxypyrimidine;  
-----

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

Mg++ gl KNO3 45°C 0.10M C K1=3.14 1986KZa (29682) 488  
-----

\*\*\*\*\*  
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  
-----

Mg++ gl R4N.X 25°C 0.10M C TIH K1=1.47 1984DDa (29924) 489  
B(MgHL)=5.95

Medium: Et4NI. Data for 0.05-1.0 M and 15-45 C.DH(K1)=8.0 kJ mol<sup>-1</sup>, DS(K1)=54 J K<sup>-1</sup> mol<sup>-1</sup>; DH(MgHL)=7.1, DS=138. At I=0, K1=2.18, B(MgHL)=6.64.  
-----

Mg++ EMF KCl 25°C 0.20M U K1=1.20 1938CKa (29925) 490  
K(Mg+HL)=0.52

\*\*\*\*\*  
C4H6O4 HL Acetoxyacetic a CAS 13831-30-6 (4249)  
Acetoxyethanoic acid; CH3.CO2.CH2.COOH  
-----

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

Mg++ gl NaNO3 30°C 0.40M U K1=0.31 1970BTa (30086) 491  
-----

\*\*\*\*\*  
C4H6O4 H2L Me-Malonic Acid CAS 516-15-2 (816)

Methylpropanedioic acid; HOOC.CH(CH3).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl04	25°C	0.10M	U		K1=1.73	19680Va (30113)	492
*****									
C4H6O5		H2L		Malic acid			CAS 617-48-1	(393)	
2-Hydroxybutane-1,4-dioic acid, Hydroxy-succinic acid; HOOC.CH2.CH(OH).COOH									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	cal	NaNO3	25°C	1.00M	U	H	K1=1.42	1980ARa (30575)	493
DH(K1)=4.1 kJ mol-1									
-----									
Mg++	gl	NaCl04	20°C	0.10M	U			1963CAa (30576)	494
							K(Mg+H2L)=0.90		
							K(Mg+HL)=1.70		
-----									
Mg++	EMF	KCl	25°C	0.20M	U		K1=1.55	1938CKa (30577)	495
							K(Mg+HL)=0.77		
*****									
C4H6O5		H2L		Diglycolic acid			CAS 110-99-6	(243)	
Di(carboxy)methyl ether, 2,2'-Oxydiethanoic acid; HOOC.CH2.O.CH2.COOH									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	oth/un	25°C	0.0	C	I	K1=2.51	1999DGa (30845)	496
							B(MgHL)=5.12		
Medium: artificial seawater. Extrapolated from data for 5-45% salinity.									
-----									
Mg++	gl	oth/un	25°C	0.25M	C	TIH	K1=1.70	1987DDe (30846)	497
							K(Mg+HL)=0.62		
Medium: Mg(NO3)2. At I=0 M, K1=2.51; at 1.0 M, K1=1.82. Data for 12.5-48 C. At 25 C, I=0.25 M: DH(K1)=19.2 kJ mol-1, DS(K1)=97 J K-1 mol-1.									
-----									
Mg++	gl	KCl	25°C	0.10M	C		K1=1.61	1984MMg (30847)	498
							K(MgL+H)=2.0		
-----									
Mg++	gl	KNO3	25°C	0.10M	C		K1=2.15	1975FCc (30848)	499
							B(MgHL)=5.88		
-----									
Mg++	gl	KNO3	25°C	0.10M	U		K1=2.06	1974MSa (30849)	500
-----									
Mg++	gl	KCl	30°C	0.10M	U		K1=1.7	1957TBb (30850)	501
*****									
C4H6O6		H2L		DL-Tartaric acid			CAS 133-37-9	(94)	
DL-Tartaric acid,DL-2,3-Dihydroxybutanedioic acid; HOOC.CH(OH).CH(OH).COOH									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

Mg++	gl	NaClO4	25°C	1.00M	M				1988MOa (31007)	502
K(Mg+H2L+(ascorbate))=3.77										
Mg++	oth	oth/un	25°C	dil	C		K1=2.349		1982HKa (31008)	503
Method: isotachophoresis. Medium: 0.006-0.019 M tartrate buffer, pH 5.1.										
*****										
C4H6O6		H2L		L-Tartaric acid	CAS	87-69-4	(92)			
L-Tartaric acid, L-2,3-Dihydroxybutanedioic acid; H00C.CH(OH).CH(OH).C00H										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	nmr	KN03	25°C	1.50M	U				1994PRa (31179)	504
Keff(Mg+B04(H-1L)2=MgB04(H-1L)2)<1.04, Keff(MgL+B04(H-1L)2=MgB04(H-1L)2+L)<0										
At pH 11.5										
Mg++	ix	oth/un	30°C	dil	C T		K1=1.18		1992LHb (31180)	505
Medium: 0.2-5.0 mM tartaric acid eluent. At 40 C, K1=1.39										
Mg++	gl	NaClO4	37°C	0.20M	U		K1=1.91		1967TTb (31181)	506
Mg++	dis	NaClO4	20°C	0.10M	U		K1=<2		1963STc (31182)	507
Mg++	gl	diox/w	30°C	75%	U		K1=7.9	B2=13.2	1954UFa (31183)	508
Mg++	EMF	KCl	25°C	0.20M	U		K1=1.36		1938CKa (31184)	509
K(Mg+HL)=0.92										
*****										
C4H7N02S		HL		Thiopropine	CAS	444-27-9	(1183)			
Thiazolidine-4-carboxylic acid; C3H6NS.C00H										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	NaCl	37°C	0.15M	C		K1=1.683		1981HMa (31472)	510
*****										
C4H7N03		HL			CAS	543-24-8	(3586)			
N-Acetyl glycine; CH3.CO.NH.CH2.C00H										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	NaClO4	30°C	0.40M	U		K1=0.32		1970BTa (31498)	511
*****										
C4H7N04		H2L		Aspartic acid	CAS	56-84-8	(21)			
Aminobutanedioic acid; H2N.CH(CH2.C00H).C00H										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	0.10M	C	M	K1=4.35		2000KAb (31806)	512
K(MgA+L)=4.59										
B(MgAL)=7.09										
H2A=Dipicolinic acid										

C4H8N2O4                      H2L            HDA                      CAS 19247-05-3    (1025)



Hydrazine-N,N'-diethanoic acid; HOOC.CH2.NH.NH.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KCl	30°C	0.10M	U			K1=1.9	1957TBb (33080)	525
*****										
C4H8O2		HL						CAS 107-92-6	(1118)	
n-Butanoic acid; <chem>CH3.CH2.CH2.COOH</chem>										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	oth	none	25°C	0	U	T H		K1=2.37	1994SHd (33324)	526
Data also at 35, 45 55 C. DH(K1)=2.0 KJ mol-1, DS=52.0 J K-1 mol-1										
Mg++	ISE	NaCl	25°C	0.03M	U	TIH		K1=1.01	1981EFa (33325)	527
At 35 C, I=0.045: K1=1.11; 45 C, I=0.45: 0.36; 25 C, I=0.45: 1.12										
DH=5.2 kJ mol-1, DS=39.7 J K-1 mol-1										

Mg++	sol	NaClO4	25°C	0.80M	U	I		K1=-0.02	1977FHc (33326)	528
Mg++	EMF	KCl	25°C	0.20M	U			K1=0.53	1938CKa (33327)	529
Method: H electrode										
*****										
C4H8O3		HL						CAS 594-61-6	(81)	
2-Hydroxy-2-methylpropanoic acid; <chem>(CH3)2C(OH).COOH</chem>										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	NaClO4	25°C	0.50M	C			K1=0.98	1995PLa (33442)	530
Mg++	EMF	NaClO4	25°C	1.0M	U			K1=0.81 B2=1.47	1965VTa (33443)	531
Method: quinhydrone electrode.										
*****										
C4H8O3		HL						CAS 300-85-6	(30)	
3-Hydroxybutanoic acid; <chem>CH3.CH(OH).CH2.COOH</chem>										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	EMF	KCl	25°C	0.20M	U			K1=0.60	1938CKa (33619)	532
Method: H electrode										
*****										
C4H9NO2		HL						Dimethylglycine CAS 1118-68-9	(88)	
N,N-Dimethyl-2-aminoethanoic acid; <chem>(CH3)2N.CH2.COOH</chem>										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	oth	none	25°C	0.0	U	H			1956MAa (34030)	533
DG(K1)=-9.6 kJ mol-1, DH=0, DS=67										
*****										
C4H9NO3		HL						Threonine CAS 72-19-5	(48)	

2-Amino-3-hydroxybutanoic acid;  $\text{H}_2\text{N}.\text{CH}(\text{CH}(\text{OH}).\text{CH}_3)\text{COOH}$

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl	37°C	0.15M	U		B2=3.31 B3=5.36	1986XHa (34286)	534

\*\*\*\*\*

C4H10NO6P                      H2L                      CAS 6401-59-8 (2399)

O-Phospho-2-methylserine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.20M	C		K1=2.36 K(Mg+HL)=1.60 K(MgL+H)=9.31	1978MAc (34475)	535

\*\*\*\*\*

C4H10NO6P                      H2L                      CAS 1114-81-4 (2400)

O-Phospho-threonine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.20M	C		K1=2.27 K(Mg+HL)=1.60 K(MgL+H)=9.0	1978MAc (34483)	536

\*\*\*\*\*

C4H10N2O4S                      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
Mg++	gl	KNO3	25°C	0.10M	C	M	K1=3.72	2001AAa (34622)	537

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

Mg++	gl	KNO3	25°C	0.10M	C		K1=3.55	2000ADa (34623)	538
Mg++	gl	NaClO4	37°C	0.10M	U T		K1=0.3	1992GHa (34624)	539

Method: coulometric titration. At 25 C, K1=0.4.

\*\*\*\*\*

C4H10N3O5P                      H3L                      Phosphocreatine (3594)

Phosphocreatine, N-(Imino(phosphonoamino)methyl)-N-methylglycine;

H2O3P.HN.C(:NH)N(CH3)CH2COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	nmr	R4N.X	37°C	0.25M	C		K(Mg+HL)=1.43	2002CFb (34636)	540

Method: 31P nmr. Medium: 20% v/v D2O/H2O, 0.25 M Me4NCl, pH 7.0.

Mg++	sp	oth/un	30°C	0.10M	U		K1=1.6	1964OPa (34637)	541
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Medium: buffer=N-ethylmorpholine

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 C4H10O2S L CAS 111-48-8 (4275)  
 3-Thiapentan-1,5-diol; HO.CH2.CH2.S.CH2.CH2.OH  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	NaClO4	25°C	1.0M	C		K1=-0.28	1979SRa (34682)	542

\*\*\*\*\*

C4H10O6Cl2P2 CAS 134757-52-1 (5246)  
 Clodronic acid monoisopropyl ester; H3L  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	R4N.X	25°C	1.0M	C		K1=3.65	1995RLa (34716)	543

Medium: 1.0 M Me4NCl.  
 \*\*\*\*\*

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
Mg++	gl	R4N.X	25°C	1.00M	C	I	K1=0.30	1982SSf (35052)	544

In 90 % (v/v) DMSO/water mixture: K1=0.50 (I=0.25 M)  
 -----

Mg++	gl	KN03	25°C	0.10M	C	M	K1=<0.7 K(Mg(ATP)+L) < 0.7	1979FHa (35053)	545
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C4H11NO8P2 H5L CAS 2439-99-8 (2129)  
 N-Carboxymethyl-N,N-bis(methylenephosphonic acid); HOOC.CH2.N(CH2.PO3H2)2  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KN03	25°C	0.10M	C		K1=6.95 K(MgL+H)=8.07 K(MgHL+H)=5.22 K(MgH2L+H)=4.0	2000SDa (35102)	546

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Mg++	ix	NaNO3	RT	0.10M	U		K1=6.0	1985PMc (35103)	547
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C4H11O4P H2L (5867)  
 n-Butyl phosphoric acid; C4H9.O.PO(OH)2  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	0.10M	C		K1=1.69	1988MSa (35285)	548

\*\*\*\*\*

C4H12NO3P H2L AMPPH CAS 18108-24-2 (222)  
 1-Amino-2-methylpropylphosphonic acid; (CH3)2.CH.CH(NH2).PO3H2  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
-------	-----	--------	------	------	-----	-------	-------------	-----------	--------

Mg++	gl	KNO3	24°C	0.10M	U	K1=3.68	1989YKa (35308)	549
Mg++	gl	KNO3	25°C	0.10M	U	K1=2.15 B(MgHL)=11.73	1979WNb (35309)	550
*****								
C4H12O6P2		H4L				CAS 4071-77-6	(3592)	
Butane-1,4-diphosphonic acid; H2O3P.CH2.CH2.CH2.CH2.PO3H2								
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Mg++	gl	oth/un	25°C	0.10M	U		K1=2.7	1962IMb (35575) 551
Mg++	gl	KCl	20°C	0.10M	U		K1=2.77 K(Mg+HL)=2.05	1951SRa (35576) 552
*****								
C4H12O7P2		H3L				CAS 52811-47-9	(7665)	
N-Butyldiphosphoric acid;								
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Mg++	gl	NaNO3	25°C	0.10M	M		K1=3.41	1999SSa (35584) 553
*****								
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
Mg++	gl	KCl	25°C	0.20M	C		K1=4.25 B(MgHL)=14.73 B(MgH2L)=19.73	1999MKa (35605) 554
Mg++	gl	KNO3	25°C	1.0M	U		K1=4.42 K(Mg+HL)=2.33 K(Mg+H2L)=1.9	1967CCb (35606) 555
*****								
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
Mg++	gl	NaCl	25°C	0.0	C		K1=0.95 K(Mg+HL)=0.25 K(Mg+H2L)=-0.21	1999SFc (35764) 556
Extrapolated from data for 0.03-0.96 M NaCl using the Pitzer equation.								
Mg++	gl	KCl	25°C	0.0	C		K1=1.22 K(Mg+HL)=0.21	1992DDa (35765) 557
*****								

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
Mg++	gl	KCl	25°C	0.10M	U		K1=<2	1965DKb (35867)	558
*****									

C5H2O4F6                      H2L                      CAS 376-73-8 (516)  
Hexafluoropentanedioic acid; HOO.CF2.CF2.CF2.COOH  
-----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	con	none	25°C	0.0	U		K1=2.44	1984TWa (35930)	559
*****									

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KN03	45°C	0.10M	U		K1=5.9	1971TKc (35988)	560
*****									

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaN03	25°C	0.50M	C		K1=0.07	2002KSb (36002)	561
*****									

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaN03	25°C	0.50M	C		K1=0.02	2002KSb (36022)	562
*****									

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
Mg++	gl	NaCl	20°C	0.15M	U		K1=3.35 K(Mg+HL)=2.22	1979DZe (36074)	563
*****									

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
Mg++	gl	NaCl04	25°C	0.50M	U	I		1983MDa (36106)	564
							K(Mg+H2L)=2.41		

K(Mg+HL)=3.89  
K(Mg+H2L)=2.58 (0.1 NaClO4)

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Mg++	gl	NaCl	20°C	0.15M	U	M	K1=2.35	1983VDb (36107)	565
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Mg++	gl	NaCl	20°C	0.15M	U		K1=3.89	1979DZe (36108)	566
							K(Mg+HL)=2.35		

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

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	gl	KN03	25°C	0.10M	U	T H			1983KSa (36188)	567
							K(Mg+HL)=2.25			
							K(Mg+2HL)=4.12			

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Mg++	gl	KN03	45°C	0.10M	U		K1=6.65	1971TKc (36189)	568
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\*\*\*\*\*  
C5H4N4S HL 6-Purinethiol CAS 6112-76-1 (115)  
6-Mercaptopurine, 6-Thiohypoxanthine;

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

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Mg++	gl	KN03	45°C	0.10M	U		K1=6.0	1971TKc (36225)	569
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\*\*\*\*\*  
C5H4O2S HL 2-Thenoic acid CAS 527-72-0 (2312)  
Thiophene-2-carboxylic acid; C4H3S.CO0H

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	gl	NaClO4	30°C	0.20M	U	T H	K1=1.95	1976SSd (36253)	570
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\*\*\*\*\*  
C5H5N L Pyridine CAS 110-86-1 (31)  
Pyridine, Azine;

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	gl	NaNO3	25°C	0.50M	C		K1=0.03	2002KSb (36590)	571
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Mg++	gl	KCl	25°C	1.00M	U	I	K1=-0.42	1986CCd (36591)	572
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K=-0.19 if values calculated by including MgL+ and H(py)Cl species.

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Mg++	sp	non-aq	21°C	100%	U	M		1983LKa (36592)	573
							K(MgA+L)=3.63		
							K(MgA+2L)=2.90		

Medium: C2H4Cl2. A=tetraphenylporphin

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Mg++	gl	NaClO4	35°C	0.20M	U		K1=2.08	1971SBb (36593)	574
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C5H5NO2 HL CAS 13161-30-3 (5582)  
1-Hydroxypyridin-2(1H)-one, 2-Hydroxypyridine 1-oxide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.20M	C		K1=3.08 B2= 5.73	2000FEc (36750)	575

\*\*\*\*\*

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
Mg++	gl	KNO3	37°C	0.15M	C		K1=3.44 B2=5.89	1980SHb (36778)	576

\*\*\*\*\*

C5H5NO2 HL CAS 1121-23-9 (2315)  
3-Hydroxypyridin-4(1H)-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	37°C	0.15M	C		K1=4.33 B2=7.48	1980SHb (36825)	577

\*\*\*\*\*

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
Mg++	gl	NaNO3	25°C	0.50M	C		K1=-0.08	2002KSb (36858)	578

\*\*\*\*\*

C5H5N5 L Adenine CAS 73-24-5 (237)  
6-Aminopurine; H2N.C5H3N4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	35°C	0.10M	U T H		K(Mg+HL)=2.71 K(Mg+2HL)=2.83	1983KSa (36965)	579

Mg++	gl	KNO3	30°C	0.10M	U		K1=6.7	1983SKa (36966)	580
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Mg++	gl	KNO3	45°C	0.10M	U		K1=3.05	1971TKc (36967)	581
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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
Mg++	gl	KNO3	45°C	0.10M	U		K1=2.8 K(Mg+H2L)=3.3	1973TKa (37011)	582

\*\*\*\*\*

C5H5N5S H3L CAS 154-42-7 (4308)

2-Mercapto-6-aminopurine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KNO3	45°C	0.10M	U			K(Mg+H2L)=2.9 K(MgH2L=MgHL+H)=3.0	1973TKa (37019)	583

\*\*\*\*\*

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
Mg++	gl	NaNO3	25°C	0.50M	C			K1=-0.07	2002KSb (37122)	584

Mg++	sp	alc/w	25°C	95%	U			K1=1.12	1993GSa (37123)	585
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Medium: 95% w/w EtOH/H2O, 0.05 M Et4NClO4, by competitive spectrophotometry

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	sp	NaClO4	25°C	0.50M	U			K(Mg+HL)=-0.06	1963SBd (37202)	586

\*\*\*\*\*

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
Mg++	gl	KNO3	35°C	0.10M	U			K1=3.06	1982TSa (37273)	587

Mg++	gl	KNO3	45°C	0.10M	U			K1=2.8	1974KKa (37274)	588
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C5H6N6 HL Diaminopurine CAS 1904-98-9 (4290)  
2,6-Diaminopurine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KNO3	45°C	0.10M	U			K1=2.5	1973TKa (37337)	589

\*\*\*\*\*

C5H6O7 H3L (8107)  
Carboxymethyltartronic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.10M	C			K1=2.77 K(MgL+H)=3.07	1984MMg (37488)	590

\*\*\*\*\*



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
Mg++	gl	NaCl	25°C	0.1M	U			K1=3.27    B2= 5.85	1998AVa (37900)	591
For 1.5 M NaCl K1=2.53; B2=5.71; for 1.0 M NaCl K1=2.72; B2=5.72 for 0.5 M NaCl K1=2.89, B2=5.73; for 0.2 M NaCl K1=3.15, B2=5.74										
Mg++	gl	diox/w	28°C	70%	U			K1=7.32    B2=13.43	1992ZHa (37901)	592
Mg++	dis	NaClO4	25°C	0.10M	C			K1=3.5	1986SNa (37902)	593
Method: rate of distribution of volatile ligand between aqueous phase and inert gas phase. K(H+L)=9.17 assumed.										
Mg++	oth	NaClO4	25°C	0.10M	C	I	R	K1=3.34    B2=5.86	1982SLc (37903)	594
IUPAC evaluation. I=0 corr.: K1=3.65, B2=6.28										
Mg++	gl	diox/w	24°C	50%	U			K1=4.5	1979ACa (37904)	595
Mg++	cal	oth/un	25°C	0.05M	U			K1=3.30    B2= 5.75 DH(K1)=-4.31 kJ/mol DH(B2)=-18.1	1979PKc (37905)	596
Mg++	gl	diox/w	20°C	17%	C			K1=7.18    B2=13.54	1976JWa (37906)	597
Mg++	gl	oth/un	20°C	0.0	U	T	H	K1=3.67    B2=6.38	1954IHa (37907)	598
DH(K1)=-7.5 kJ mol <sup>-1</sup> , DS=46; DH(K2)=-18, DS=-10. 0 C: K1=3.75, K2=2.75; 30 C: K1=3.363, K2=2.54; 40 C: K1=3.65, 2.44										

Mg++      gl      diox/w      30°C      75%      U                      K1=7.49    B2=13.58    1953UFb (37908) 599  
\*\*\*\*\*

C5H8O4                      H2L                      CAS 595-46-0    (1144)  
Dimethylmalonic acid; H00C.C(CH3)2.C00H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	NaClO4	25°C	0.10M	U			K1=1.55	19680Va (38207)	600
*****										
C5H8O4		H2L						CAS 601-75-2    (479)		
Ethylpropanedioic acid; H00C.CH(C2H5).C00H										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	sp	none	25°C	0.0	U	T		K1=2.63	1976K0a (38234)	601
Also data at 15,30,35 C. Determined colourimetrically										

Mg++      gl      NaClO4      25°C      0.10M      U                      K1=1.62                      19680Va (38235) 602  
\*\*\*\*\*

C5H8O4                      H2L      Glutaric acid      CAS 110-94-1    (420)

Pentanedioic acid; HOOC.CH2.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	EMF	KCl	25°C	0.20M	U		K1=1.08 K(Mg+HL)=0.52	1938CKa (38307)	603

\*\*\*\*\*  
C5H9NO2 HL Proline CAS 147-85-3 (44)  
Pyrrolidine-2-carboxylic acid; C4H8N.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	oth/un	20°C	0.03M	U		B2=4	1950ALa (38600)	604

\*\*\*\*\*  
C5H9NO3S H2L N-Acetyl-Cys CAS 616-91-1 (1187)  
N-Acetylcysteine; CH3.CO.NH.CH(CH2.SH)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	oth/un	25°C	0.10M	U		K1=2.6	1975IMa (38815)	605

Medium not stated.  
\*\*\*\*\*  
C5H9NO4 H2L Glutamic acid CAS 56-86-0 (22)  
2-Aminopentanedioic acid; H2N.CH(CH2.CH2.COOH)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	0.10M	C	M	K1=3.20 K(MgA+L)=3.32 B(MgAL)=5.82	2000KAb (39053)	606

H2A=Dipicolinic acid.

Mg++	gl	NaCl	25°C	1.00M	C		K1=1.33	1988BSa (39054)	607
------	----	------	------	-------	---	--	---------	-----------------	-----

Mg++	gl	NaCl04	37°C	0.15M	C		K1=2.196 B(MgH2L)=14.876 B(MgHL)=11.081 B(MgH-1L2)=-6.125	1987BBd (39055)	608
------	----	--------	------	-------	---	--	--------------------------------------------------------------------	-----------------	-----

Mg++	gl	KNO3	25°C	0.10M	M		K1=2.79	1981GVa (39056)	609
------	----	------	------	-------	---	--	---------	-----------------	-----

Mg++	gl	KCl	25°C	0.10M	U		K1=1.9	1953LMa (39057)	610
------	----	-----	------	-------	---	--	--------	-----------------	-----

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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
Mg++	gl	KNO3	25°C	0.10M	U		K1=3.44	1977TIa (39231)	611

Mg++	vlt	NaClO4	25°C	0.10M	U	K1=3.5	1969VPa (39232)	612
-----								
Mg++	gl	KCl	25°C	0.10M	U	H	K1=3.48 B2=5.83	1968NPb (39233) 613
By calorimetry:DH(K1)=11.9 kJ mol-1, DS=110.8 J K-1 mol-1, DH(K2)=-2.0,DS=33								
-----								
Mg++	cal	KNO3	20°C	0.10M	U	H	1965ANa (39234)	614
DH(K1)=13.0 kJ mol-1, DS=110.4 J K-1 mol-1								
-----								
Mg++	EMF	oth/un	25°C	->0	U	H	1956MAa (39235)	615
Method: H electrode. DG(K1)=-23.8 kJ mol-1, DH=-8.4, DS=104.6								
-----								
Mg++	gl	KCl	20°C	0.10M	U		K1=3.44	1955SAa (39236) 616
-----								
Mg++	EMF	oth/un	20°C	->0	U		K1=4.41	1945SKa (39237) 617
Method: H electrode								
*****								
C5H9NO4S H2L (1736)								
3-(Carboxymethyl)thio-L-alanine; H00C.CH2.S.CH2.CH(NH2)COOH								
-----								
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
-----								
Mg++	gl	NaClO4	25°C	1.0M	U		K1=2.58	1979GSc (39311) 618
*****								
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
-----								
Mg++	gl	NaNO3	25°C	0.10M	U		K1=5.15 B2= 9.50	1993GAa (39529) 619
-----								
Mg++	gl	KNO3	35°C	0.10M	C	M	1985RRc (39530) 620	
							K(Mg+HL)=2.44	
							K(MgL(cytidine)+H)=2.96	
							K(Mg+HL+cytidine)=8.48	
*****								
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
-----								
Mg++	gl	KCl	30°C	0.10M	U		K1=0.7	1967GNb (39564) 621
							K(Mg+HL)=0	
-----								
Mg++	cal	KNO3	30°C	0.10M	U	H	1967GNC (39565) 622	
DH(K1)=-5.9(?) kJ mol-1, DS=-4(?) 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



Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl	20°C	0.15M	U	M	K1=1.56	1983VDb (40893)	633
*****									
C5H11N2O7P		H3L					(3635)		
Glycyl-O-phosphoryl-D,L-serine;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.15M	U		K1=1.86 K(Mg+HL)=1.64 K(Mg+MgL)=1.4	19620Sa (41377)	634
*****									
C5H11N2O7P		H3L					CAS 6665-42-5	(3636)	
O-Phosphorylserylglycine;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.15M	U		K1=1.94 K(Mg+HL)=1.40 K(Mg+MgL)=1.25	19620Sa (41382)	635
*****									
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
Mg++	gl	NaNO3	25°C	0.10M	C		K1=1.58	1988MSa (41418)	636
*****									
Mg++	gl	KNO3	15°C	0.10M	U		K1=1.70	1972FSa (41419)	637
*****									
C5H12NO4P		HL					CAS 51276-47-2	(5704)	
2-Amino-4-(methylhydroxyphosphoryl)butanoic acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl04	23°C	0.10M	U		K1=3.23	1990YTa (41443)	638
*****									
C5H12N2O2		HL					Ornithine CAS 1069-31-4	(46)	
2,5-Diaminopentanoic acid; H2N.CH2.CH2.CH2.CH(NH2)COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	U	I	K(Mg+HL)=1.54	1970CMc (41571)	639
I=1.0 M, K(Mg+HL)=1.71									
*****									
C5H13NO6P2		H4L					CAS 56152-35-3	(8890)	
N-Pyrrolidinomethane-1,1-diphosphonic acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.20M	C				2002MKc (41751)	640
								B(MgH2L)=23.20 B(MgHL)=17.60 B(MgH2L2)=32.73 B(MgHL2)=21.18		

\*\*\*\*\*

C5H13NO7P2 H4L CAS 75006-88-1 (640)  
1-Acetylaminopropylidene-1,1-diphosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KNO3	30°C	0.15M	U			K1=7.69 B2=13.15 K(Mg+HL)=3.31	1983LSa (41753)	641

\*\*\*\*\*

C5H13NO7P2 H4L CAS 88216-82-4 (641)  
1-Propanoylaminoethylidene-1,1-diphosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KNO3	30°C	0.15M	U			K1=8.34 B2=14.08 K(Mg+HL)=3.33	1983LSa (41757)	642

\*\*\*\*\*

C5H13O14P3 H5L PRPP CAS 108321-05-7 (2385)  
5-Phosphorylribose-1-pyrophosphate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.20M	U			K1=3.2 B(Mg2L)=4.8 B(MgHL)=9.4 B(MgH2L)=11.0	1978TLA (41812)	643

\*\*\*\*\*

C5H13O14P3 H4L CAS 62746-84-3 (8234)  
Ribose 5'-triphosphate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	sp	oth/un	25°C	0.05M	C			K1=4.77 K(MgL+Mg)=1.60	1981BKf (41813)	644

Method: by competition with 8-hydroxyquinoline.

Medium: 0.05 M Tris buffer, pH 7.5. K(MgL+Mg) determined by 31P nmr.

\*\*\*\*\*

C5H14NO3P H2L CAS 13138-37-9 (1985)  
1-Aminopentylphosphonic acid; CH3.(CH2)3.CH(NH2).PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	U			K1=2.03	1979WNb (41823)	645

B(MgHL)=11.59

\*\*\*\*\*

C5H14NO3P H2L CAS 72696-97-0 (1990)

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

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

Mg++ gl KNO3 25°C 1.0M U K1=2 1967CCa (41832) 646  
K(Mg+HL)=1.3

\*\*\*\*\*

C5H14NO4P H2L (8071)

1-Amino-2-hydroxypentane-2-phosphonic acid;

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

Mg++ gl NaClO4 25°C 0.1M U K1=3.82 1975SLa (41836) 647  
K(Mg+HL)=2.86

\*\*\*\*\*

C5H15NO6P2 H4L CAS 195000-13-6 (8888)

N-(1-Methylpropyl)aminomethane-1,1-diphosphonic acid;

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

Mg++ gl KCl 25°C 0.20M C K1=6.12 2002MKc (41942) 648  
B(MgH2L)=22.61  
B(MgHL)=17.23  
B(MgH2L2)=32.22

\*\*\*\*\*

C5H15NO7P2 H4L AMOK CAS 63132-39-8 (1350)

1-Hydroxy-3-N,N-dimethylaminopropane-1,1-diphosphonic acid;

Me2N.CH2.CH2.C(OH)(PO3H2)2

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

Mg++ sol KCl 22°C 0.10M U K1=6.57 1985KSa (41954) 649  
K(Mg+HL)=3.30

-----  
Mg++ gl KCl 25°C 0.10M U K1=6.57 1979KBa (41955) 650  
K(Mg+HL)=6.32

\*\*\*\*\*

C5H17NO13P4 H5L ADOPPH CAS 82372-37-0 (228)

1-Hydroxy-3-(N,N-bis(methylenephosphonic)-aminopropylidene-1,1-diphosphonic acid;

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

Mg++ gl KNO3 25°C 1.0M U K1=7.40 1982SBa (42019) 651  
K(Mg+HL)=6.85  
K(Mg+H2L)=4.54  
K(Mg+H3L)=3.17  
K(Mg+H4L)=2.67

\*\*\*\*\*  
 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
Mg++		con alc/w	30°C	100%	U	I M	K2=2.85	1979PSa (42088)	652
Medium: iso-PrOH. In H2O: K2=1.49									

Mg++		sp oth/un	25°C	->0	U		K1=2.8	1960KAb (42089)	653
------	--	-----------	------	-----	---	--	--------	-----------------	-----

Mg++		sp oth/un	21°C	0.40M	U		B2=2.43	1955BKa (42090)	654
Medium: 0.2-0.6(some EtOH)									

\*\*\*\*\*  
 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
Mg++		sp oth/un	21°C	0.40M	U		B2=2.38	1955BKa (42222)	655
Medium: 0.2-0.6(some EtOH)									

\*\*\*\*\*  
 C6H4N2O6 H2L CAS 7659-29-2 (2694)  
 1,2-Dihydroxy-3,5-dinitrobenzene; (HO)2.C6H2(NO2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++		gl KCl	25°C	0.10M	M		K1=4.53 B2=7.71 B(CuH-1L)=-5.8	1987HAb (42262)	656

\*\*\*\*\*  
 C6H4N4O HL CAS 900-47-0 (3083)  
 4-Hydroxypteridine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++		gl oth/un	20°C	0.01M	U		K1=<1	1953ALa (42277)	657

\*\*\*\*\*  
 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
Mg++		gl KCl	30°C	25%	M	TIH	K1=3.35	1991GDe (42303)	658
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
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Mg++	gl	NaNO3	20°C	0.10M	U	K1=2.20		1960ANb (42491)	659
Mg++	gl	oth/un	25°C	0.0	U	K1=2.58	B2=3.95	1957LUa (42492)	660
Mg++	gl	NaNO3	25°C	0.10M	U	K1=2.5		1957SYb (42493)	661
*****									
C6H5NO4		H2L						3-Nitrocatechol CAS 6665-98-1	(2685)
1,2-Dihydroxy-3-nitrobenzene; O2N.C6H3(OH)2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.10M	M		K1=5.72 B2=9.77	1986HAc (42854)	662
*****									
C6H5NO4		H2L						4-Nitrocatechol CAS 3316-09-4	(890)
1,2-Dihydroxy-4-nitrobenzene; O2N.C6H3(OH)2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.10M	M		K1=5.21 B2=8.85	1985HAa (42910)	663
*****									
C6H5N2O8P		H2L						CAS 2566-76-9	(6146)
2,4- Dinitrophenylphosphoric acid; (NO2)2C6H3.O.PO3H2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	kin	KCl	39°C	1.00M	C		K1=6.2	1987HJb (42982)	664
*****									
C6H6NBr		L						(8782)	
5-Bromo-2-methylpyridine;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	0.50M	C		K1=-0.07	2002KSb (43193)	665
*****									
C6H6NCl		L						CAS 10445-91-7	(8781)
4-(Chloromethyl)pyridine;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	0.50M	C		K1=0.06	2002KSb (43209)	666
*****									
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
Mg++	gl	NaNO3	25°C	0.10M	C		K1=1.29	1988MSa (43244)	667
Mg++	kin	KCl	39°C	1.00M	C		K1=14.8	1987HJb (43245)	668
*****									

C6H6N2O2 HL (8281)  
3-Hydroxy-2-amidocarboxypyridine, Hydroxypicolinamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	C		K1=2.64	1990ARa (43372)	669

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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
Mg++	sp	oth/un	20°C	var	C		K1=4.11	1981LGc (43470)	670

Medium: phosphate (0.1 M) or borax (0.01 M) buffers.

Mg++	gl	NaCl	20°C	0.15M	U		K1=3.98 K(Mg+HL)=2.15	1979DZc (43471)	671
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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
Mg++	sp	alc/w	25°C	95%	U		K1=1.98	1993GSa (43712)	672

Medium: 95% w/w EtOH/H2O, 0.05 M Et4NClO4, by competitive spectrophotometry

Mg++	gl	KNO3	35°C	0.10M	C		K1=4.12	1985RRh (43713)	673
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Mg++	gl	NaClO4	30°C	0.10M	U		K1=5.24	1966APb (43714)	674
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C6H6O2 H2L Hydroquinone CAS 123-31-9 (3646)  
1,4-Dihydroxybenzene; HO.C6H4.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	nmr	oth/un	25°C	0.0	U		K1=0.75	1992AVa (43895)	675

Medium: pH 7.4 buffer

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	KCl	25°C	0.50M	U		K1=2.59	1974TAa (44191)	676

Mg++	gl	KNO3	25°C	0.10M	U		K1=2.92 B2=5.11	1962MUa (44192)	677
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Mg++	EMF	KCl	21°C	0.10M	U		K1=3.0	1959OKb (44193)	678
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Method: H electrode

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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
Mg++	gl	KNO3	30°C	0.10M	U		K1=6.27    B2=10.41	1963MNC (44279)	679

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
Mg++	gl	KCl	20°C	0.10M	U		K1=6.86 K(Mg+HL)=1.98	1964PCa (44396)	680

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
Mg++	gl	KCl	25°C	0.10M	C		K1=3.43 K(MgL+H)=3.33	1984MMg (44535)	681

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	0.50M	C		K1=-0.02	2002KSb (44600)	682

Mg++	gl	NaClO4	35°C	0.20M	U		K1=2.59	1971SBb (44601)	683
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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
Mg++	gl	NaNO3	25°C	0.50M	C		K1=0.04	2002KSb (44689)	684

Mg++	gl	NaClO4	35°C	0.20M	U		K1=2.44	1971SBb (44690)	685
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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
Mg++	gl	NaClO4	35°C	0.20M	U		K1=2.80	1971SBb (44812)	686

C6H7NO2                      HL                      CAS 19365-01-6 (2311)  
3-Hydroxy-1-methylpyridin-4(1H)-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	37°C	0.15M	C		K1=3.44 B2=5.89	1980SHb (45042)	687
*****									
C6H7O3P		H2L					CAS 1571-33-1	(521)	
Phenylphosphonic acid; C6H5.PO3H2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	oth/un	30°C	0.30M	U		K1=1.72	1975Kwa (45199)	688
*****									
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
Mg++	gl	NaNO3	25°C	0.10M	C		K1=1.53	1988MSa (45229)	689
*****									
C6H8NO4P		H2L					(3713)		
2-Pyridylmethanephosphoric acid (1'-picolyl phosphate)									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	U		K1=1.7	1968MTd (45246)	690
*****									
C6H8N2		L					CAS 95-54-5	(2899)	
1,2-Diaminobenzene, 1,2-Phenylenediamine; C6H4(NH2)2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	alc/w	25°C	95%	U		K1=1.73	1993GSa (45270)	691
Medium: 95% w/w EtOH/H2O, 0.05 M Et4NClO4, by competitive spectrophotometry									
*****									
C6H8N2O4		H2L					(3100)		
Cyanomethyliminodiethanoic acid; NC.CH2.N(CH2.COOH)2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	20°C	0.10M	U		K1=1.86	1955SAa (45415)	692
*****									
C6H8O4		H2L					CAS 5445-51-2	(69)	
Cyclobutane-1,1-dicarboxylic acid; C4H6(COOH)2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaClO4	25°C	0.10M	U		K1=2.1 K(Mg+HL)=0.95	1966OCb (45504)	693
*****									
C6H8O5		HL					(5458)		

4-Ethyl-oxaloethanoic acid HOOC.CO.CH2.C(O)O.CH2.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	kin	KCl	25°C	0.50M	U			K1=1.06 K(Mg+H-1L=MgH-1L)=3.7	1982BLb (45530)	694

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C6H8O6                      H3L      Tricarballic      CAS 99-14-9 (1620)  
 1,2,3-Propanetricarboxylic acid; HOOC.CH2.CH(COOH).CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	oth/un	25°C	0.0	C	I		K1=3.256 B(MgHL)=8.605 B(MgH2L)=12.392 B(Mg2L)=4.21	1994DFc (45558)	695

Values at I=0 calculated from data for 0.013-0.33 M MgCl2.

Mg++	gl	NaCl04	20°C	0.10M	U			K1=2.06 K(Mg+HL)=1.20 K(Mg+H2L)=0.77	1964COb (45559)	696
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Mg++	gl	oth/un	25°C	0.15M	U			K1=2.00 K(Mg+HL)=0.91	1964PCa (45560)	697
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C6H8O6                      H2L      Ascorbic acid      CAS 50-81-7 (285)  
 Ascorbic acid (Vitamin C);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	NaCl04	25°C	1.00M	M	M		K(Mg+H2L+(ascorbate))=3.77	1988MOa (45621)	698

Mg++	gl	NaCl04	20°C	1.00M	M			K(Mg+HL)=0.98 K(Mg+2HL)=1.85	1983MOa (45622)	699
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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
Mg++	gl	NaCl04	25°C	1.0M	U			K(Mg+H-1L)=3.81 K(Mg+H-1L+H)=14.13 K(Mg+H-1L+2H)=18.19 K(Mg+H-1L-H)=-8.57	1976PCb (45729)	700

Data are for DL isomeric mixture.

Mg++	gl	R4N.X	25°C	0.10M	U			K1=1.43    B2=2.72	1970GTa (45730)	701
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C6H8O7                      H3L      Citric acid                      CAS 77-92-9    (95)  
2-Hydroxypropane-1,2,3-tricarboxylic acid; HOOCCCH2.CH(OH)(COOH).CH2COOH

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	oth/un	25°C	0.0	C	I	K1=4.71 K(Mg+H+L)=8.84 K(Mg+2H+L)=12.2	1999DGa (45991)	702
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Medium: artificial seawater. Extrapolated from data for 5-45% salinity.

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Mg++	gl	NaCl04	25°C	0.50M	C		K1=2.71 B(MgHL)=6.55	1995PLa (45992)	703
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Mg++	oth	NaCl	25°C	0.15M	U	T	K1=3.27	1993GMa (45993)	704
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Method: Coulometric titration. K1=3.24 (37 C)

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Mg++	gl	NaCl04	30°C	1.0M	U		K1=3.62	1988GMd (45994)	705
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Mg++	gl	NaCl04	37°C	0.15M	C		K1=3.333    B2=5.126 B(MgH2L)=11.008 B(MgHL)=7.483 B(MgHL2)=10.411 B(Mg2H-2L2)=-12.638	1987BBd (45995)	706
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B(MgH-2L)= -18.468

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Mg++	gl	KNO3	37°C	0.10M	U	I	K1=3.451 B(MgHL)=7.23	1982ADa (45996)	707
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Ionic strength range: 0.03-0.3.

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Mg++	gl	oth/un	25°C	0.00	U	H	K1=4.71 K(Mg+HL)=2.42	1982ADa (45997)	708
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DH1=-22.00 kJ mol<sup>-1</sup>, DS1=164 J mol<sup>-1</sup> K<sup>-1</sup>.

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Mg++	oth	oth/un	25°C	dil	C		K1=4.917 K(Mg+HL)=1.672	1982HKa (45998)	709
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Method: isotachophoresis. Medium: 0.006-0.019 M citrate buffer, pH 5.1.

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Mg++	gl	KCl	25°C	0.10M	M	I	K1=3.63 K(Mg+HL)=1.76 K(Mg+H2L)=0.54	1980PEa (45999)	710
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Extrapolated to I=0.0 M: K1=4.85; K(MgHL)=2.67; K(MgH2L)=1.0.

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Mg++	gl	KNO3	25°C	0.10M	C		K1=3.38 B(MgHL)=7.66	1975FCc (46000)	711
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Mg++	gl	NaCl	37°C	0.15M	C		K1=3.34 K(Mg+HL)=1.62	1974MEa (46001)	712
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Mg++	gl	R4N.X	25°C	0.10M	U		K1=1.92    B2=3.85	1970GTa (46002)	713
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Mg++	gl	oth/un	32°C	0.10M	U		K1=3.6	1965PPb (46003)	714
Mg++	gl	R4N.X	25°C	0.10M	U		K1=3.73 K(Mg+HL)=1.85	1965TGa (46004)	715
Medium: Me4NCl									
Mg++	gl	NaCl04	20°C	0.10M	U		K1=3.40 K(Mg+HL)=1.84 K(Mg+H2L)=0.84	1964COb (46005)	716
Mg++	ix	R4N.X	25°C	0.10M	U		K1=3.16	1964TMb (46006)	717
Medium: NH4Cl									
Mg++	ix	oth/un	25°C	0.0	U		K1=3.96	1964TMb (46007)	718
Mg++	sp	R4N.X	25°C	0.10M	C		K1=3.55	1961WAa (46008)	719
Medium: 0.16 M Me4NCl.									
Mg++	vlt	oth/un	25°C	0.15M	U		K1=3.29 K(Mg+HL)=1.60	1959LLa (46009)	720
Same values at I=0.09									
Mg++	oth	oth/un	25°C	0.16M	U		K1=3.2	1934HMa (46010)	721
Method: frog heart contraction									
*****									
C6H8O7P2		H3L		CAS 101378-64-7 (7666)					
Phenyldiphosphoric acid;									
*****									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	0.10M	M		K1=3.24	1999SSa (46344)	722
*****									
C6H9NO6		H3L		(6054)					
3-Carboxyglutamic acid; H2N.CH(CH(COOH).CH2.COOH)COOH									
*****									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl	25°C	1.00M	C		K1=0.92	1988BSa (46357)	723
*****									
C6H9NO6		H3L		CAS 41035-84-1 (4367)					
N-Carboxymethyl-L-aspartic acid;									
*****									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	U		K1=4.57	1975GNb (46373)	724
*****									
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
Mg++	gl	KNO3	20°C	0.10M	C	TIH R	K1=5.43	1982ANa (46677)	725
IUPAC evaluation									
Mg++	dis	R4N.X	?	0.10M	U		K1=6.4	1969ASb (46678)	726
Method: chromatography. Medium: NH4Cl									
Mg++	gl	KCl	20°C	0.10M	U		T K1=5.46	1966IMb (46679)	727
Mg++	gl	KNO3	25°C	0.10M	U	T H T	K1=5.36	1960BMb (46680)	728
K1=5.33(0.5 C), 5.37(42.5 C). DH(K1)=12.6 kJ mol <sup>-1</sup> , DS=142 J K <sup>-1</sup> mol <sup>-1</sup>									
Mg++	EMF	oth/un	30°C	0.0	U	T H	K1=6.61	1956HMa (46681)	729
Method: H electrode. K1=6.31(0 C), 6.39(10 C), 6.50(20 C). DH(K1)=20.3 kJ mol <sup>-1</sup> , DS=192 J K <sup>-1</sup> mol <sup>-1</sup>									
Mg++	EMF	oth/un	25°C	0.0	U	H		1956MAa (46682)	730
Method: H electrode. DG(K1)=-37.24 kJ mol <sup>-1</sup> , DH=16.7, DS=184 J K <sup>-1</sup> mol <sup>-1</sup>									
Mg++	gl	KCl	20°C	0.10M	U		T K1=5.41	1955SAa (46683)	731
Mg++	gl	KCl	20°C	0.10M	U		K1=7.0 B2=10.2	1948SBa (46684)	732
Mg++	EMF	oth/un	20°C	0.0	U		K1=7.00	1945SKb (46685)	733
Method: H electrode									

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C6H9NO7 H3L CAS 3055-17-2 (3694)  
Nitrilotriethanoic acid N-oxide; O-N(CH2.COOH)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	U		K1=2.83	1967CCc (47134)	734
*****									
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
Mg++	gl	KNO3	35°C	0.10M	C	M		1985RRc (47525)	735
							K(Mg+HL)=3.35 K(MgL(cytidine)+H)=2.58 K(Mg+HL+cytidine)=8.43		
Mg++	gl	KNO3	35°C	0.10M	C			1985RRh (47526)	736
							K(Mg+HL)=3.35		
Mg++	gl	KNO3	35°C	0.10M	C	M	K1=2.80	1983KSc (47527)	737
							K(Mg+HA+L)=3.35 K(Mg+HB+L)=2.81		



A is adenine; HB is cytosine.

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C6H10N2O4                      H2L                      (3104)

Piperazine-2,6-dicarboxylic acid;

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

Mg++            gl    KCl            22°C 0.10M U            K1=3.2            1964PCa (47735) 738

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C6H10N2O4                      H2L                      CAS 89601-09-2 (3102)

trans-Piperazine-2,3-dicarboxylic acid;

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

Mg++            gl    KCl            22°C 0.10M U            K1=5.8            1964PCa (47747) 739

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C6H10N2O5                      H2L            ADA                      CAS 26239-55-4 (2747)

N-(2-Acetamido)iminodiethanoic acid; H2N.CO.CH2.N(CH2.COOH)2

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

Mg++            gl    KNO3            25°C 0.10M C            K1=2.51            1983LRc (47837) 740

Mg++            gl    KNO3            25°C 0.10M C            K1=2.51            1979NAb (47838) 741

Mg++            gl    KCl            20°C 0.10M U            K1=2.47            1955SAa (47839) 742

\*\*\*\*\*

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  
-----

Mg++            gl    KNO3            25°C 0.10M U            K1=6.80            1990GKa (47871) 743

K(Mg+HL)=5.98

K(Mg+H2L)=4.16

\*\*\*\*\*

C6H10N4OS                      L                      (2622)

4,5-Dimethyl-2,4,6,8-tetraazabicyclo[3,3,0]-octane-3-one-7-thione;

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

Mg++            gl    KNO3            25°C 0.10M U            K1=4.18            1986KKa (47890) 744

\*\*\*\*\*

C6H10O4                      H2L                      CAS 595-84-6 (481)

(Methylethyl)propanedioic acid; HOO.C(CH3)(C2H5).COOH

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

Mg++            sp    none            25°C 0.0 U T            K1=2.95            1976K0a (48023) 745

Also data at 15,30,35 C. Determined colourimetrically

\*\*\*\*\*  
 C6H1006 H2L CAS 23243-68-7 (242)  
 1,2-Bis(carboxymethoxy)ethane; H00C.CH2.O.CH2.CH2.O.CH2.C00H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KN03	25°C	0.10M	U		K1=1.9	1974MSa (48329)	746

Mg++	gl	oth/un	25°C	0.10M	U		K1=2.78	1961KEa (48330)	747
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C6H1007 HL Glucuronic acid CAS 6556-12-3 (599)  
 D-Glucuronic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	R4N.X	25°C	0	M	I	K1=1.03	1996GMb (48416)	748

At I=0.16 M: K1=0.65

\*\*\*\*\*

C6H11N04S H3L CAS 58033-48-5 (3124)  
 N-2-Mercaptoethyliminodiethanoic acid; HS.CH2.CH2.N(CH2.C00H)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	20°C	0.10M	U		K1=4.32	1955SAa (48609)	749

K(Mg+HL)=2.50

\*\*\*\*\*

C6H11N05 H2L HIMDA CAS 93-62-9 (192)  
 N-(2-Hydroxyethyl)iminodiethanoic acid; H0.CH2.CH2.N(CH2.C00H)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	dis	R4N.X	?	0.10M	U		K1=4.8	1969ASb (48682)	750

Method: chromatography. Medium: NH4Cl

Mg++	vlt	NaCl04	25°C	0.10M	U		K1=3.5	1969VPa (48683)	751
------	-----	--------	------	-------	---	--	--------	-----------------	-----

Mg++	gl	KCl	20°C	0.10M	U		K1=3.44	1955SAa (48684)	752
------	----	-----	------	-------	---	--	---------	-----------------	-----

Mg++	gl	KCl	30°C	0.10M	U		K1=3.54	1952CCa (48685)	753
------	----	-----	------	-------	---	--	---------	-----------------	-----

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C6H11N07S H3L CAS 39716-94-4 (3125)  
 N-2-Sulfoethyliminodiethanoic acid (taurine-NN-diacetic acid)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	EMF	KCl	20°C	0.10M	U		K1=3.48	1949SAa (48845)	754

Method: H electrode

\*\*\*\*\*

C6H11N304 HL Gly-Gly-Gly CAS 556-33-2 (415)  
 Glycyl-glycyl-glycine; H2N.CH2.CO.NH.CH2.CO.NH.CH2.C00H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KCl	30°C	0.09M	U	T H		K1=1.95	1957MMa (48972)	755
K1=1.60(0.35 C), 2.08(48.8 C). DH(K1)=8.4 kJ mol-1, DS=59 J K-1 mol-1										
*****										
C6H12N07P		H4L						CAS 55339-27-0	(3127)	
N-2-Phosphoethyliminodiethanoic acid; H2O3P.CH2.CH2.N(CH2.COOH)2										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	EMF	KCl	20°C	0.10M	U			K1=6.33	1949SAa (49033)	756
K(Mg+HL)=2.14										
Method: H electrode										
*****										
C6H12N2O4		H2L		EDDA				CAS 5657-17-0	(119)	
1,2-Diaminoethane-N,N'-diethanoic acid; HOOC.CH2.NH.CH2.CH2.NH.CH2.COOH										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	cal	NaClO4	25°C	0.10M	U	H		K1=4.3	1983EHa (49222)	757
DH1=12.3 kJ mol-1, DS1=124 J K-1 mol-1										
Mg++	gl	KCl	30°C	0.10M	U			K1=3.9	1952CMc (49223)	758
*****										
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
Mg++	gl	KCl	20°C	0.10M	U			K1=4.53	1955SAa (49298)	759
*****										
C6H12N2O4		H2L						CAS 4726-83-4	(5911)	
N,N-Dihydroxyhexanediamide; HN(OH).CO.(CH2)4.CO.NH(OH)										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	0.10M	C			K1=3.33	1989EHa (49331)	760
B(MgHL)=12.43										
*****										
C6H12O6		L						CAS 576-63-6	(2284)	
cis-Inositol, cyclohexane-1,2,3,4,5,6-hexol;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	ISE	none	25°C	0.0	C			K1=-0.22	1975AHa (49626)	761
*****										
C6H12O7		HL		Gluconic acid				CAS 526-95-4	(904)	
D-Gluconic acid, 2,3,4,5,6-Pentahydroxyhexanoic acid; HO.CH2(CHOH)4.COOH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	EMF	KCl	20°C	0.20M	U		K1=0.70	1938CKa (49694)	762
Method: H electrode									
*****									
C6H13NO2		HL		Isoleucine			CAS 73-32-5	(424)	
2-Amino-3-methylpentanoic acid; CH3.CH2.CH(CH3).CH(NH2).COOH									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl	20°C	0.15M	U	M	K1=1.85	1983VDb (49897)	763
*****									
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
Mg++	gl	KNO3	25°C	0.10M	U	I	K1=3.69	1990RAB (50056)	764
Data also for 10% w/w EtOH/H2O (K1=3.94) and 25% (4.21)									
-----									
Mg++	gl	NaCl	20°C	0.15M	U	M	K1=1.89	1983VDb (50057)	765
*****									
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
Mg++	gl	NaCl	20°C	0.15M	U	M	K1=1.90	1983VDb (50168)	766
-----									
Mg++	gl	oth/un	20°C	0.01M	U		B2=<4	1950ALa (50169)	767
*****									
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
Mg++	gl	KNO3	25°C	0.10M	C		K1=1.80	1991KNa (50338)	768
-----									
Mg++	gl	KCl	30°C	0.10M	U		K1=1.15	1953CCa (50339)	769
*****									
C6H13NO4S		HL		MES			CAS 4432-31-9	(7807)	
4-Morpholineethanesulfonic acid;									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl04	37°C	0.10M	U	T	K1=0.5	1992GHa (50429)	770
Method: coulometric titration. At 25 C, K1=0.6.									
*****									
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
Mg++	gl	KNO3	25°C	0.10M	U		K1=1.66 B2=1.86	1970CMc (50571)	771
*****									
C6H13O9P		H2L					CAS 26177-86-6	(7139)	
Fructose-6-phosphoric acid; C6H11O5.H2PO4									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaClO4	25°C	0.10M	C		K1=3.32	1996GCa (50606)	772
Mg++	gl	KCl	20°C	0.10M	U		K1=1.59	1957SAa (50607)	773
*****									
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
Mg++	nmr	oth/un	25°C	?	U		K1=1.18	1991COa (50619)	774
*****									
C6H13O9P		H2L					CAS 56-73-5	(3703)	
d-Glucose-6-phosphoric acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	nmr	oth/un	25°C	?	U		K1=0.90	1991COa (50624)	775
*****									
C6H14NO2P		HL					(6465)		
Piperidinemethylphosphinic acid; C5H10N.CH2.PO2H2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaClO4	25°C	0.10M	C		K1=3.46	1992LBa (50635)	776
*****									
C6H14N4O2		L					(1529)		
1,8-Diamino-3,6-diaza-2,7-octanedione; (H2N.CH2.CO.NH.CH2)2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	25°C	1.0M	U		K1=0.54	1953CGa (50928)	777
*****									
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
Mg++	gl	KNO3	25°C	0.10M	U		K1=2.21	1970CMc (50999)	778
Mg++	gl	oth/un	25°C	?	U		K1=1.30	1960PEd (51000)	779

\*\*\*\*\*

C6H14O3                      L      Diglyme                      CAS 111-96-6 (6769)  
bis-2-Methoxyethyl ether, 2,5,8-Trioxanonane; CH3.O.CH2CH2.O.CH2CH2.O.CH3

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

Mg++            cal non-aq 25°C 100% C    H                      1992BSc (51046) 780  
Medium: propylene carbonate. DH(K1)=-3.6 kJ mol-1.

-----  
Mg++            con non-aq 25°C 100% C                      K1=2.6                      1992MSe (51047) 781  
Medium: 100% MeOH. Anion: picrate. Also data for nitrophenolate anions.

\*\*\*\*\*

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  
-----

Mg++            gl    R4N.X    20°C 0.10M U                      K1=3.72                      1969HRa (51116) 782  
K(Mg+HL)=2.28

Medium: (C3H7)4NI

\*\*\*\*\*

C6H14O12P2                      H4L                      CAS 488-69-7 (3705)  
Fructose-1,6-diphosphoric acid;

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

Mg++            gl    NaClO4 25°C 0.10M C                      K1=3.75                      1996GCa (51123) 783

-----  
Mg++            gl    oth/un 25°C 0.08M U                      K1=2.7                      1965MCb (51124) 784  
K(Mg+HL)=2.12

\*\*\*\*\*

C6H14O12P2                      H4L                      CAS 84364-89-6 (7140)  
Fructose-2,6-diphosphoric acid; C6H10O4.(H2P04)2

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

Mg++            gl    NaClO4 25°C 0.10M C                      K1=3.90                      1996GCa (51129) 785

\*\*\*\*\*

C6H15NO3                      Triethanolamine    CAS 102-71-6 (447)                      L  
Tris-(2-hydroxyethyl)amine;

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

Mg++            gl    R4N.X    25°C 1.00M C    I                      K1=0.24                      1982SSf (51282) 786  
In 90 % (v/v) DMSO/water mixture: K1=0.51 (I=0.25 M)

\*\*\*\*\*

C6H15NO7P2                      H4L                      CAS 126104-92-5 (8889)  
N-2-Methylenetetrahydrofuryloaminomethane-1,1-diphosphonic acid;

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



Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.10M	U		K1=<3	1967KLa (51790)	793
*****									
C6H17N06P2		H4L					CAS 71066-28-9	(8887)	
N-(3-Methylbutyl)aminomethane-1,1-diphosphonic acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.20M	C		K1=6.41 B(MgH2L)=23.20 B(MgHL)=17.55 B(MgH2L2)=32.37 B(Mg3H2L2)=40.62	2002MKc (51802)	794
*****									
C6H17N06P2		H4L					CAS 71066-29-0	(8886)	
N-Pentylaminomethane-1,1-diphosphonic acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.20M	C		K1=6.43 B(MgH2L)=22.98 B(MgHL)=17.41 B(MgH2L2)=32.23 B(Mg3H2L2)=39.67	2002MKc (51806)	795
*****									
C6H17N203P		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
Mg++	gl	KNO3	25°C	0.10M	C		K1=7.83 K(MgL+H)=8.91 K(MgHL+H)=8.07 K(MgH2L+H)=5.74 K(MgH3L+H)=4.3	1999D0a (51824)	796
*****									
C6H18N204P2		H2L					(7261)		
1,2-Diaminoethane-N,N'-bis-(dimethylenemethylphosphinic acid); (CH2NHCH2PO(OH)CH3)2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	R4N.X	25°C	0.10M	M		K1=3.96	1996BCa (51929)	797
Medium: 0.1 M Me4NNO3. *****									
C6H18N206P2		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
Mg++	gl	KNO3	25°C	0.10M	C		K1=5.67 K(MgL+H)=8.80 K(MgHL+H)=6.9	1999D0a (51948)	798

\*\*\*\*\*

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
Mg++	gl	KNO3	25°C	0.10M	C		K1=5.36 K(MgL+H)=9.99 K(MgHL+H)=7.4	1999D0a (51968)	799

\*\*\*\*\*

C6H18N3OP L HMPA CAS 680-31-9 (603)  
Hexamethylphosphoramide, Tris-(dimethylamino)phosphine oxide;((CH3)2N)3PO

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	ISE non-aq		25°C	100%	M		K1=3.96 B2= 5.05 B3=6.36 B4=7.60	1999NMa (51977)	800

Method: ISE based on benzo-12-crown-4 coupled to polyacrylamide.

Medium: propylenecarbonate, 0.01 M Et4NClO4.

\*\*\*\*\*

C6H18N4 L Trien-tetramine CAS 112-24-3 (11)  
1,4,7,10-Tetraazadecane; H2N.CH2.CH2.NH.CH2.CH2.NH.CH2.CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl	25°C	0.0	C		K1=1.39 K(Mg+HL)=1.05 K(Mg+H2L)=0.25 K(Mg+H3L)=-0.33	1999SFc (52090)	801

Extrapolated from data for 0.03-0.96 M NaCl using the Pitzer equation.

\*\*\*\*\*

C6H20N2O8P4 H4L CAS 938-16-3 (4402)  
Ethylenediaminetetra(methylenephosphonic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	U		K1=1.94	1971MMh (52247)	802

\*\*\*\*\*

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
-------	-----	--------	------	------	-----	-------	-------------	-----------	--------

Mg++	gl	KCl	25°C	0.10M	C	I	R	2001PRa (52313)	803
							K(Mg+HL)=5.40		
							K(MgL+H)=10.00		
							K(MgHL+H)=8.76		
							K(MgH2L+H)=6.91		

IUPAC Recommended values. MgH3L+H)=5.2

Mg++	gl	NaCl	37°C	0.15M	C			K1=5.49	1995JWa (52314)	804
							K(MgL+H)=9.21			
							K(MgL+OH)=2.34			
							K(MgHL+H)=8.63			
							K(MgH2L+H)=7.06			

Mg++	gl	KNO3	25°C	0.10M	C	H		K1=8.35	1993SMa (52315)	805
							K(MgL+H)=10.07			
							K(MgHL+H)=8.73			
							K(MgH2L+H)=6.86			
							K(MgH3L+H)=5.35			

DH(K1)=16.5, DH(MgHL)=-25.7, DH(MgH2L)=-20.7, DH(MgH3L)=0.3, DH(MgH4L)=0.6  
kJ mol<sup>-1</sup>.

Mg++	gl	KCl	25°C	0.10M	U			K1=5.69	1980RZa (52316)	806
							K(MgL+H)=10.60			
							K(MgH2L+H)=8.23			
							K(MgHL+H)=9.10			
							K(MgH3L+H)=7.07			

Mg++	gl	KNO3	25°C	0.10M	U			K1=4.78	1979RZa (52317)	807
							K(Mg+HL)=4.03			
							K(Mg+H2L)=3.45			
							K(Mg+H3L)=3.06			

Mg++	gl	KNO3	25°C	0.10M	C			K1=8.43	1976MMa (52318)	808
							K(MgL+H)=9.95			
							K(MgHL+H)=8.79			
							K(MgH2L+H)=6.96			
							K(MgH3L+H)=4.97			

Mg++	gl	KCl	25°C	0.10M	U			K1=8.63	1967KDa (52319)	809
							K(Mg+HL)=6.58			
							K(Mg+H2L)=5.00			
							K(Mg+H3L)=4.07			
							K(Mg+H4L)=2.45			

\*\*\*\*\*

C7H4NO4Cl                      H2L                      CAS 4722-94-5 (3780)  
4-Chloropyridine-2,6-dicarboxylic acid; Cl.C5H2N(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	gl	NaCl04	22°C	0.10M	U			K1=2.38	1964BBE (52383)	810
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 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
Mg++	sp	KCl	25°C	0.50M	U		K1=2.16	1974TAa (52459)	811
Mg++	gl	KNO3	25°C	0.10M	U T		K1=2.30	1969DDc (52460)	812

K1(30 C)=2.43, K1(35 C)=2.65

\*\*\*\*\*  
 C7H4N4O4                      L                      CAS 50365-37-2 (7762)  
 5,6-Dinitrobenzimidazole;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	0.50M	M		K1=-0.11 K(Mg+H-1L)=0.62 *K(MgL)=-8.19	1999KSa (52516)	813

\*\*\*\*\*  
 C7H5NOS                      HL                      CAS 7405-23-4 (3177)  
 4-Hydroxybenzothiazole;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	diox/w	25°C	50%	U		K1=4.54    B2=8.54	1960FFa (52590)	814

\*\*\*\*\*  
 C7H5N04                      H2L                      Quinolinic acid    CAS 89-00-9 (567)  
 2,3-Pyridinedicarboxylic acid; C5H3N.(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	U		K1=2.3	1958YYa (52619)	815

\*\*\*\*\*  
 C7H5N04                      H2L                      CAS 499-80-9 (566)  
 2,4-Pyridinedicarboxylic acid; C5H3N.(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	U		K1=2.4	1958YYa (52648)	816

\*\*\*\*\*  
 C7H5N04                      H2L                      Dipicolinic aci    CAS 449-83-2 (418)  
 2,6-Pyridinedicarboxylic acid; C5H3N.(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	0.10M	C		K1=2.50	2000KAb (52745)	817
Mg++	gl	NaCl	30°C	0.10M	M		K1=1.94	1985RAa (52746)	818

Mg++ gl oth/un 25°C 0.10M U K1=2.32 1966BSe (52747) 819  
By ion exchange: K2=0.7

Mg++ gl NaNO3 20°C 0.10M U K1=2.30 1960ANb (52748) 820

Mg++ gl KNO3 25°C 0.10M U K1=2.7 1957SYb (52749) 821

Mg++ gl KCl 30°C 0.10M U K1=2.4 1957TBb (52750) 822

\*\*\*\*\*  
C7H5NO4 HL CAS 97-51-8 (1887)  
5-Nitrosalicylaldehyde; O2N.C6H3(OH).CHO

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

Mg++ gl diox/w 25°C 50% U T K1=3.18 B2=5.81 1973CGc (52935) 823

Medium: 50% dioxan, 0.3 M NaClO4. Temperature range 15-50 C

K1(15 C)=3.06, K1(50 C)=2.31, K2(15 C)=2.58, K2(50 C)=2.23

\*\*\*\*\*

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

Mg++ gl NaClO4 22°C 0.10M U K1=3.68 1964BBa (53071) 824

Mg++ gl oth/un 20°C 0.10M U K1=3.7 1963AND (53072) 825

K(MgL+H)=8.09

\*\*\*\*\*

C7H5N3O2 L CAS 94-52-0 (7761)

5-Nitrobenzimidazole;

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

Mg++ gl NaNO3 25°C 0.50M M K1=-0.09 1999KSa (53100) 826

K(Mg+H-1L)=0.41

\*K(MgL)=-10.08

\*\*\*\*\*

C7H5O2Br HL CAS 4584-68-3 (2691)

3-Bromotropolone;

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

Mg++ gl diox/w 30°C 50% U K1=4.9 B2=8.8 1954BFd (53112) 827

\*\*\*\*\*

C7H5O2Br HL CAS 586-76-5 (1367)

4-Brombenzoic acid; Br.C6H4.COOH

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

Mg++ ISE NaCl 25°C 0.0 C TIH K1=1.65 1991EAa (53117) 828

Method: Mg ISE. Data for 0.02-0.05 M NaCl, 15-45 C. DH(K1)=2.31 kJ mol<sup>-1</sup>, DS(K1)=38.8 J K<sup>-1</sup> mol<sup>-1</sup>. Also data for 2-bromo- and 3-bromobenzoic acid.  
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C7H5O2Br HL CAS 1761-61-1 (1886)  
 5-Bromosalicylaldehyde; Br.C6H3(OH).CHO

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	diox/w	25°C	50%	U T		K1=3.18 B2=5.86	1973CGc (53130)	829
Medium: 50% dioxan, 0.3 M NaCl04. Temperature range 15-50 C K1(15 C)=3.36, K1(50 C)=3.18, K2(15 C)=2.82, K2(50 C)=2.53									

Mg++ EMF diox/w 20°C 50% U K1=2 1963CCa (53131) 830  
 Medium: 50% dioxan, 0.3 M NaCl04

\*\*\*\*\*

C7H5O2Cl HL CAS 118-91-2 (2519)  
 2-Chlorobenzoic acid; Cl.C6H4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	ISE	NaCl	25°C	0.0	C TIH		K1=1.62	1991EAa (53143)	831
Method: Mg ISE. Data for 0.02-0.05 M NaCl, 15-45 C. DH(K1)=2.31 kJ mol <sup>-1</sup> , DS(K1)=38.8 J K <sup>-1</sup> mol <sup>-1</sup> . Also data for 3-chloro- and 4-chlorobenzoic acid.									

Mg++ ISE NaCl 25°C 0.03M U TIH K1=0.681 1982EFa (53144) 832  
 At 35 C, I=0.045 M: K1=0.715; 45 C, I=0.45 M: 0.340. Further data available

\*\*\*\*\*

C7H5O2Cl HL (3747)  
 2-Hydroxy-6-chlorobenzaldehyde (6-chlorosalicylaldehyde)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	EMF	diox/w	20°C	50%	U		K1=2	1963CCa (53157)	833
Medium: 50% dioxan, 0.3 M NaCl04									

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C7H5O2Cl HL CAS 2420-26-0 (3144)  
 4-Chlorosalicylaldehyde; HO.C6H3(Cl).CHO

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	EMF	diox/w	20°C	50%	U		K1=3	1963CCa (53207)	834
Medium: 50% dioxan, 0.3 M NaCl04									

\*\*\*\*\*

C7H5O2Cl HL CAS 635-93-8 (3145)  
 5-Chlorosalicylaldehyde; HO.C6H3(Cl).CHO

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	diox/w	25°C	50%	U T		K1=3.30 B2=6.04	1973CGc (53222)	835
Medium: 50% dioxan, 0.3 M NaCl04. Temperature range 15-50 C									

K1(15 C)=3.39, K1(50 C)=3.07, K2(15 C)=2.87, K2(50 C)=2.58

\*\*\*\*\*

C7H6N2O4 H2L CAS 2683-49-0 (3753)

4-Aminopyridine-2,6-dicarboxylic acid (4-aminodipicolinic acid)

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

Mg++ gl KNO3 20°C 0.10M U K1=2.91 1965ABa (53503) 836  
-----

Mg++ gl NaClO4 22°C 0.10M U K1=2.88 1964BBa (53504) 837  
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C7H6O2 HL Salicylaldehyde CAS 90-02-8 (193)

2-Hydroxybenzaldehyde, Salicylaldehyde; HO.C6H4.CHO

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

Mg++ gl KCl 25°C 0.50M U K1=1.72 1969HLA (53615) 838  
-----

Mg++ gl diox/w 30°C 75% U K1=3.88 1964JVa (53616) 839  
Medium: 75% dioxan, 0.1 M NaClO4  
-----

Mg++ EMF diox/w 20°C 50% U K1=2 1963CCa (53617) 840  
Medium: 50% dioxan, 0.3 M NaClO4  
-----

Mg++ gl diox/w 25°C 75% U K1=6.25 B2=10.55 1954UFa (53618) 841  
-----

Mg++ gl diox/w 25°C 50% U K1=3.69 B2=6.80 1949MMa (53619) 842  
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\*\*\*\*\*

C7H6O2 HL Tropolone CAS 533-75-5 (3129)

2-Hydroxycyclohepta-2,4,6-trien-1-one;

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

Mg++ sp NaClO4 25°C 0.10M U K1=3.82 1970HOa (53663) 843  
-----

Mg++ gl diox/w 30°C 50% U K1=5.5 B2=9.9 1953BFa (53664) 844  
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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  
-----

Mg++ gl alc/w 25°C 100% M K1=4.7 B2=7.1 1988PPa (53818) 845  
Medium: MeOH  
-----

Mg++ ISE NaCl 25°C 0.03M U TIH K1=0.981 1982EFa (53819) 846  
At 35 C, I=0.045 M: K1=0.97; at 45 C, I=0.45: K1=0.380  
-----

Mg++ gl KNO3 30°C 0.40M U K1=0.1 1970BTa (53820) 847  
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C7H6O3                      H2L                      CAS 1194-98-5 (4408)  
2,5-Dihydroxybenzaldehyde; (OH)2.C6H3.CHO

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	diox/w	30°C	50%	U			1969VMa (53948)	848
							K(Mg+HL)=3.20 K(MgHL+HL)=2.50		

Medium: 50% dioxan, 0.1 M NaClO4

\*\*\*\*\*

C7H6O3                      H2L                      Salicylic acid                      CAS 69-72-7 (14)  
2-Hydroxybenzoic acid, Salicylic acid; HO.C6H4.COOH

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	cal	R4N.X	25°C	0	U	IH	K1=1.59	1997MAa (54131)	849
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Medium: Me4NCl. I=0.025 K1=1.43, DH(K1)=2.7 kJ mol<sup>-1</sup>; I=0.050: K1=1.33, DH(K1)=3.1. I=0.075 M: K1=1.24, DH(K1)=3.9. I→0: DH(K1)=2.2

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Mg++	sp	NaCl	25°C	0.50M	U	T		1990DOa (54132)	850
							K(Mg+HL=MgL+H)=-8.48		

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Mg++	gl	alc/w	25°C	100%	M			1988JTa (54133)	851
							K(Mg+HL)=4.2 K(Mg+2HL)=6.6		

Medium: MeOH

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Mg++	cal	alc/w	25°C	100%	U	H		1988PPa (54134)	852
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Medium: MeOH. DH(MgL)=27.4 kJ mol<sup>-1</sup>; DS=172. DH(MgL2)=38.7; DS=264

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Mg++	ISE	NaCl	25°C	0.03M	U	TIH	T	1982EFa (54135)	853
							K(Mg+HL)=1.35		

At 35 C, I=0.045 M: K1=1.39; at 45 C, I=0.045 M: K1=1.35

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Mg++	gl	NaClO4	37°C	0.15M	C	T	K1=5.156	1978AKa (54136)	854
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Mg++	gl	diox/w	30°C	75%	U		K1=3.30	1964JVa (54137)	855
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Medium: 75% dioxan, 0.1 M NaClO4

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Mg++	gl	diox/w	30°C	75%	U		K1=4.7	1954UFa (54138)	856
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C7H6O3                      H2L                      CAS 99-06-9 (1370)  
3-Hydroxybenzoic acid; HO.C6H4.COOH

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	EMF	NaCl	25°C	0.0	C	T	H	1984EFa (54374)	857
							K(Mg+HL)=1.148		

Method: Mg selective electrode. Extrapolated from data for 0.15-0.30 M NaCl. DH(K)=4.51 kJ mol<sup>-1</sup>, DS(K)=37.2 J K<sup>-1</sup> mol<sup>-1</sup>. Data for 35 and 45 C.

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C7H6O4                      H3L      Protocatechuic      CAS 99-50-3    (875)  
3,4-Dihydroxybenzoic acid; C6H3(OH)2.COOH

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Metal            Mtd Medium Temp Conc Cal Flags Lg K values            Reference ExptNo  
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Mg++            gl    NaClO4    30°C   0.10M U                      K1=6.30            1966APb (54655) 858  
-----

Mg++            gl    KNO3      30°C   0.10M U                      K1=5.67    B2=9.84    1963Mnc (54656) 859

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C7H6O4                      H3L                      CAS 99-10-5    (4409)  
3,5-Dihydroxybenzoic acid; C6H3(OH)2.COOH

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

Mg++            EMF NaCl      25°C   0.0   C T H                      1984EFa (54714) 860

K(Mg+H2L)=0.965

Method: Mg selective electrode. Extrapolated from data for 0.15-0.30 M  
NaCl. DH(K)=6.48 kJ mol<sup>-1</sup>, DS(K)=40.4 J K<sup>-1</sup> mol<sup>-1</sup>. Data for 35 and 45 C.

\*\*\*\*\*

C7H6O5                      H4L      Gallic acid            CAS 149-91-7    (446)  
3,4,5-Trihydroxybenzoic acid; C6H2(OH)3.COOH

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

Mg++            EMF KNO3      25°C   0.10M U                      1985SCd (54746) 861

B(Mg2L)=10.7

Method: divalent cation liquid ion exchange electrode

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Mg++            EMF R4N.X    25°C   0.0   C T H                      1984EFa (54747) 862

K(Mg+H3L)=1.476

Method: Mg selective electrode. Extrapolated from data for 0.15-0.30 M  
Et4NCl. DH(K)=2.68 kJ mol<sup>-1</sup>, DS(K)=37.3 J K<sup>-1</sup> mol<sup>-1</sup>. Data for 35, 45 C.

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C7H6O6S                      H3L                      CAS 5965-83-3    (399)  
5-Sulfosalicylic acid, 2-Hydroxy-5-sulfobenzoic; HO3S.C6H3(OH).COOH

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

Mg++            gl    NaNO3    25°C   0.10M C                      K1=4.70            1982HNa (54929) 863

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C7H7NO2                      HL      Anthranilic            CAS 118-92-3    (1589)  
2-Aminobenzoic acid, Anthranilic acid; H2N.C6H4.COOH

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Metal            Mtd Medium Temp Conc Cal Flags Lg K values            Reference ExptNo  
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Mg++            gl    oth/un    25°C   ->0 U                      K1=0.72            1958LUa (55208) 864

\*\*\*\*\*

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
Mg++	gl	oth/un	25°C	->0	U			K(Mg+HL)=0.64 K(Mg+2HL)=4.10	1958LUa (55305)	865
*****										
C7H7NO2		HL		Salicylamide				CAS 65-45-2	(3155)	
2-Hydroxybenzamide; HO.C6H4.CO.NH2										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	diox/w	30°C	75%	U			K1=2.79	1964JVa (55325)	866
Medium: 75% dioxan, 0.1 M NaClO4										
*****										
C7H7NO2		HL						CAS 3222-47-7	(3154)	
6-Methylpyridine-2-carboxylic acid; CH3.C5H3N.CO.OH										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	NaNO3	20°C	0.10M	U			K1=2.00	1960ANb (55426)	867
*****										
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
Mg++	gl	KCl	25°C	0.20M	C			K1=2.67 B2= 4.61 B(MgH-1L)=-8.48	2000FEc (55493)	868
*****										
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
Mg++	gl	NaNO3	25°C	0.10M	C			K1=3.39	2000KHa (55586)	869
*****										
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
Mg++	gl	diox/w	25°C	25%	U			K1=2.66	1975GSb (55871)	870
*****										
C7H8N2O2		L						CAS 15513-52-7	(5516)	
3-Nitro-2,6-dimethylpyridine;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	0.50M	U			K1=0.3	1983BEb (55897)	871

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 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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Mg++	gl	KNO3	35°C	0.20M	U		K1=1.63	1989RVa (55995)	872
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C7H8O2 HL Salicyl alcohol CAS 90-01-7 (3727)  
 2-Hydroxybenzyl alcohol; HO.C6H5.CH2.OH

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	diox/w	30°C	75%	U		K1=4.95	1964JVa (56091)	873
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Medium: 75% dioxan, 0.1 M NaClO4

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C7H8O8P2 H4L (6892)  
 1,2-((Phenylenedioxy)methylene)diphosphonic acid; C6H4O2C(P(=O)(OH)2)2

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	R4N.X	25°C	0.50M	U		K1=5.67	1985GMb (56165)	874
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K(Mg+HL)=3.03

Medium: 0.5 M Me4NCl

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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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Mg++	gl	NaNO3	25°C	0.50M	C		K1=0.04	2002KSb (56284)	875
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C7H9NO8 H4L (8068)  
 2-Aminopropane-1,3-dioic-N,N-bis(ethanoic acid);

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	KNO3	25°C	0.1M	U		K1=5.15	1976NGb (56466)	876
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C7H9NO8 H4L CAS 4379-32-2 (5702)  
 2-Aminopropane-1,3-dioic-N-2-butane-1,4-dioic acid; (HOOC)2CH.NH.CH(COOH)CH2.COOH

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	KNO3	25°C	0.10M	U		K1=4.03	1988KMa (56471)	877
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C7H9O6ClP2S H4L CAS 89987-48-4 (2395)  
 4-Chlorophenylthiomethylene-diphosphonic acid; Cl.C6H4.S.CH(P(=O)(OH)2)2

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++ ISE NaNO3 20°C 0.04M U K1=6.95 1988BLa (56530) 878  
K(Mg+HL)=4.2

\*\*\*\*\*  
C7H10N06ClP2 H4L (6895)  
N-(4-Chlorphenyl)aminomethylenedi(phosphonic acid); ClC6H4.NH.CH(PO3H2)2  
-----

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

Mg++ gl KNO3 25°C 0.10M U K1=6.5 1990GKa (56555) 879  
K(Mg+HL)=4.0

\*\*\*\*\*  
C7H10N208P2 H5L CAS 195000-06-7 (8891)  
N-(3-Carboxy-2-pyridyl)aminomethane-1,1-diphosphonic acid;  
-----

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

Mg++ gl KCl 25°C 0.20M C K1=5.88 B2= 9.05 2002MKc (56702) 880  
B(MgH2L)=20.68  
B(MgHL)=14.55  
B(MgH-1L)=-4.88  
B(MgH2L2)=26.84

B(MgHL2)=18.51.

\*\*\*\*\*  
C7H11N05 H2L (3164)  
1-Amino-2-propanone-N,N-diethanoic acid; CH3.CO.CH2.N(CH2.COOH)2  
-----

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

Mg++ gl KNO3 25°C 0.10M U K1=2.7 1963ANa (56829) 881

\*\*\*\*\*  
C7H11N06 H3L (2926)  
2-Aminobutanoic-N-propane-1,3-dioic acid; HOOC.CH(C2H5)NH.CH(COOH)2  
-----

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

Mg++ gl KNO3 25°C 0.10M U K1=3.10 1982KKa (56838) 882

\*\*\*\*\*  
C7H11N06 H3L CAS 40199-58-4 (3165)  
N-(2'-Carboxyethyl)iminodiethanoic acid; HOOC.CH2.CH2.N(CH2.COOH)2  
-----

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

Mg++ gl KCl 30°C 0.10M U K1=5.2 1953CMA (56875) 883

-----  
Mg++ EMF KCl 20°C 0.10M U K1=5.28 1949SAa (56876) 884  
Method: H electrode

\*\*\*\*\*  
C7H11N06 H3L MNTA (1026)  
Nitrilo(2-propanoic)-diethanoic acid; HOOC.CH(CH3).N(CH2.COOH)2

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  KNO3   20°C 0.10M U          K1=5.83          1974RMf (56902) 885
-----
Mg++       gl  KCl    20°C 0.10M U          K1=5.84          1966IMa (56903) 886
*****
C7H11NO6P2      H4L    DPHP                      (226)
2,6-bis(Dioxyphosphorylmethyl)pyridine; C5H3N.(CH2.PO3H2)2
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  KCl    25°C 0.10M U          K1=3.61          1988KPa (56929) 887
                        K(Mg+HL)=2.75
*****
C7H11NO6P2      H4L                      CAS 4712-06-5 (4470)
Amino(phenyl)methylenediphosphonic acid;
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  KCl    25°C 0.10M U          K1=7.39          1969DMd (56937) 888
                        K(Mg+HL)=5.46
*****
C7H12N2O5      H2L    Gly-Glu          CAS 7412-78-4 (280)
Glycyl-glutamic acid; H2N.CH2.CO.NH.CH(CH2.CH2.COOH).COOH
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  KNO3   20°C 0.10M U          K1=3.78          1980BBc (57173) 889
*****
C7H12N2O6P2      H4L                      CAS 70010-76-3 (8892)
N-(3-Methyl-2-pyridyl)aminomethane-1,1-diphosphonic acid;
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  KCl    25°C 0.20M C          K1=6.12  B2= 8.65  2002MKc (57188) 890
                        B(MgH2L)=21.34
                        B(MgHL)=15.33
                        B(MgH-1L)=-5.89
                        B(MgH2L2)=27.83
*****
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
-----
Mg++       gl  NaNO3  25°C 0.10M M          K1=1.88          1999BHb (57199) 891
                        K(Mg+HL)=0.5
                        K(MgL+H)=5.6
*****

```

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
Mg++	gl	diox/w	25°C	50%	U			K1=4.52 B2=8.32	1973AHb (57241)	892

\*\*\*\*\*

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
Mg++	gl	diox/w	24°C	50%	U			K1=4.5	1979ACa (57288)	893

\*\*\*\*\*

C7H12O4 H2L CAS 534-59-8 (480)  
Butylpropanedioic acid (Butylmalonic acid); HOO.CH(C4H9).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	sp	none	25°C	0.0	U T			K1=2.51	1976K0a (57333)	894

Also data at 15,30,35 C. Determined colourimetrically

\*\*\*\*\*

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	sp	none	25°C	0.0	U T			K1=2.63	1976K0a (57356)	895

Also data at 15,30,35 C. Determined colourimetrically

\*\*\*\*\*

C7H13NO4S H2L (3184)  
N-(2-Methylthioethyl)iminodiethanoic acid; CH3.S.CH2.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KCl	20°C	0.10M	U			K1=3.02	1955SAa (57544)	896

\*\*\*\*\*

C7H13NO5 H2L CAS 62117-07-1 (3171)  
N-(2-Methoxyethyl)iminodiethanoic acid; CH3.O.CH2.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KCl	20°C	0.10M	U			K1=3.31	1955SAa (57572)	897

\*\*\*\*\*

C7H13NO5 H2L CAS 59881-62-1 (339)  
N-(3-Hydroxypropyl)iminodiethanoic acid; HO.(CH2)3.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KCl	30°C	0.10M	U			K1=3.3	1954CMA (57588)	898

\*\*\*\*\*  
 C7H13NO5                      H2L                      CAS 41433-03-8 (4451)  
 N-(Carboxymethyl)-N-(2'-hydroxyethyl)alanine;  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	EMF	KNO3	20°C	0.10M	U		K1=3.52	1968MRb (57596)	899

\*\*\*\*\*

C7H13NO6                      H2L                      CAS 32013-58-4 (6079)  
 N-(2,3-Dihydroxypropyl)iminodiethanoic acid; HO.CH2.CH(OH).CH2.N(CH2.COOH)2  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	20°C	0.10M	U		K1=3.02	1980MRc (57607)	900

\*\*\*\*\*

C7H14N2O4                      H2L      TriMe-EDDA                      CAS 7597-26-4 (265)  
 1,3-Propanediamine-N,N'-diethanoic acid; HOOC.CH2.NH.(CH2)3.NH.CH2.COOH  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	cal	NaClO4	25°C	0.10M	U	H	K1=3.4	1983EHa (57815)	901

DH(K1)=10.5 kJ mol<sup>-1</sup>, DS=99 J K<sup>-1</sup> mol<sup>-1</sup>  
 -----

C7H14N3O8P                      H3L                      (3788)  
 Glycyl-O-phosphoryl-DL-serylglycine;  
 -----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.15M	U		K1=1.79 K(Mg+HL)=1.46 K(MgL+Mg)=0.9	19620Sa (57832)	902

\*\*\*\*\*

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
Mg++	gl	NaNO3	25°C	0.10M	M		K1=1.43	2003FHa (57841)	903

\*\*\*\*\*

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
Mg++	gl	KNO3	25°C	0.10M	C		K1=3.51	2001A0a (57962)	904

\*\*\*\*\*

C7H16O6Cl2P2                      H2L                      CAS 133918-05-5 (5250)  
 Clodronic acid P,P'-diisopropyl ester;  
 -----

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



\*\*\*\*\*  
 C7H22N2O13P4                      H8L      DPPH                      CAS 54622-43-4 (2651)  
 2-Hydroxy-1,3-diaminopropane-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
Mg++	ISE	KNO3	25°C	0.1M	U		K1=7.49 B(MgHL)=17.64 B(MgH3L)=35.14 B(MgH2L)=27.11 B(MgH4L)=41.60	1985Snd (58384)	912

B(MgH5L)=45.99  
 B(Mg2L)=6.97

\*\*\*\*\*  
 C8H5N5O6                      H3L      Murexide                      (453)  
 Purpuric acid (Murexide is ammonium salt);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	alc/w	25°C	95%	U		K1=4.68	1993GSa (58485)	913
Medium: 95% w/w EtOH/H2O, 0.05 M Et4NC104									
Mg++	sp	alc/w	25°C	100%	U	I	K1=3.85	1988KGa (58486)	914
Medium: MeOH. Also in DMF (K1=3.57) and DMSO (3.22).									

Mg++	sp	oth/un	?	0.10M	U			1949SGa (58487)	915
							K(Mg+H2L)=1(?), 2.2(?)		

\*\*\*\*\*  
 C8H5O2F3S                      HL      TTA                      CAS 326-91-0 (165)  
 4,4,4-Trifluoro-1-(2-thienyl)butane-1,3-dione; F3C.CO.CH2.CO.C4H3S

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	diox/w	20°C	17%	C		K1=6.16    B2=11.11	1976JWa (58597)	916

\*\*\*\*\*

C8H6N2O                      HL                      CAS 17056-99-4 (3220)  
 5-Hydroxyquinoxaline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	diox/w	20°C	50%	U		K1=3.44    B2=6.39	1954IRa (58745)	917
Medium: 50% dioxan, 0.3 M NaClO4									

\*\*\*\*\*

C8H6N2O                      HL                      (6290)  
 8-Hydroxycinnoline, (2-Hydroxybenzo)pyrimidine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	diox/w	20°C	50%	U		K1=3.02    B2=5.20	1954IRa (58766)	918



Medium: 50% dioxan, 0.3 M NaClO4

\*\*\*\*\*

C8H6N2O HL 8-Quinazolinol CAS 7757-02-2 (3221)  
8-Hydroxyquinazoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	diox/w	20°C	50%	U		K1=3.89 B2=6.80	1954IRa (58776)	919

Medium: 50% dioxan, 0.3 M NaClO4

\*\*\*\*\*

C8H6O4 H2L Phthalic acid CAS 88-99-3 (113)  
Benzene-1,2-dicarboxylic acid; C6H4(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl	25°C	0.10M	U		K1=2.53	1989SKa (58940)	920
Mg++	con	none	25°C	0.0	U		K1=2.49	1984TWa (58941)	921
Mg++	gl	oth/un	25°C	.493M	U T		K1=2.51	1975PAb (58942)	922

15 C: K1=2.52; 20 C: 2.50; 30-35 C: 2.51

\*\*\*\*\*

C8H6O4 H2L Terephthalic Ac CAS 199-21-0 (518)  
Benzene-1,4-dicarboxylic acid; C6H4(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	con	none	25°C	0.0	U		K1=1.82	1984TWa (59071)	923

\*\*\*\*\*

C8H8N2O4 H2L (3823)  
4-(Methylamino)pyridine-2,6-dicarboxylic acid; CH3.NH.C5H2N(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaClO4	22°C	0.10M	U		K1=3.09	1964BBa (59351)	924

\*\*\*\*\*

C8H8O2 HL 2-Acetylphenol CAS 118-93-4 (1888)  
2-Hydroxyacetophenone; HO.C6H4.CO.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	diox/w	30°C	75%	U		K1=7.22	1970KDa (59455)	925

Medium: 75% dioxan, 0.1 M NaClO4

\*\*\*\*\*

C8H8O2 HL o-Toluic acid CAS 118-90-1 (7862)  
2-Methylbenzoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	ISE	NaCl	25°C	0.0	C	TIH	K1=1.63	1991EAa (59475)	926

Method: Mg ISE. Data for 0.02-0.05 M NaCl, 15-45 C. DH(K1)=2.72 kJ mol<sup>-1</sup>, DS(K1)=40.3 J K<sup>-1</sup> mol<sup>-1</sup>. Also data for 3-methyl- and 4-methylbenzoic acid.

\*\*\*\*\*

C8H8O2 HL p-Toluic acid CAS 99-94-5 (1372)

4-Methylbenzoic acid; CH<sub>3</sub>.C<sub>6</sub>H<sub>4</sub>.COOH

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

Mg++ ISE NaCl 25°C 0.03M U TIH K1=0.936 1982EFa (59499) 927

At 35 C, I=0.045 M: K1=0.87; at 45 C, I=0.45: K1=0.340

\*\*\*\*\*

C8H8O2 HL CAS 1004-72-4 (3190)

alpha-Methyltropolone;

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

Mg++ gl diox/w 30°C 50% U K1=6.0 B2=10.6 1954BFb (59580) 928

B3=13.2

\*\*\*\*\*

C8H8O2 HL CAS 583-80-2 (3191)

beta-Methyltropolone;

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

Mg++ gl diox/w 30°C 50% U K1=6.0 B2=10.6 1954BFb (59591) 929

B3=13.7

\*\*\*\*\*

C8H8O3 HL CAS 673-22-3 (3194)

4-Methoxysalicylaldehyde; CH<sub>3</sub>O.C<sub>6</sub>H<sub>3</sub>(OH).CHO

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

Mg++ gl diox/w 30°C 75% U K1=3.29 1967KBb (59978) 930

Medium: 75% dioxan, 0.1 M NaClO<sub>4</sub>

\*\*\*\*\*

C8H8O3 HL Phenoxyacetic CAS 122-59-8 (1153)

Phenoxyethanoic acid; C<sub>6</sub>H<sub>5</sub>.O.CH<sub>2</sub>.COOH

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

Mg++ gl none 25°C 0.0 C TIH K1=1.00 1985CDb (60036) 931

Calculated from protonation data for I=0.04-0.9 M MgCl<sub>2</sub>. Data for 10-45 C.

DH(K1)=-0.9 kJ mol<sup>-1</sup>, DS(K1)=16 J K<sup>-1</sup> mol<sup>-1</sup>.

\*\*\*\*\*

C8H8O4 H3L CAS 102-32-9 (1826)

3,4-Dihydroxyphenylethanoic acid; C<sub>6</sub>H<sub>3</sub>(OH)<sub>2</sub>.CH<sub>2</sub>COOH

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

Mg++ gl NaClO<sub>4</sub> 30°C 0.10M U K1=4.94 1966APb (60068) 932

\*\*\*\*\*

C8H8O4 HL CAS 520-45-6 (4478)  
3-Acetyl-2-hydroxy-6-methylpyran-4-one, Dehydroethanoic acid;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ gl diox/w 35°C 50% U K1=2.88 B2=4.92 1971MAa (60081) 933  
Medium: 50% dioxan, 0.1 M NaClO4

\*\*\*\*\*

C8H8O4 HL (6840)  
3-Acetyl-4-Hydroxy-6-methyl-2-pyrone;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ gl mixed 24°C 50% U K1=3.10 B2=5.71 1993ZMa (60105) 934  
Medium: 50% v/v acetone/H2O

\*\*\*\*\*

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  
-----  
Mg++ gl NaCl 37°C 0.15M U K1=2.73 1988HYa (60123) 935  
B(MgHL)=7.17  
B(MgHL2)=10.01

\*\*\*\*\*

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  
-----  
Mg++ gl diox/w 30°C 75% U K1=5.23 B2=10.20 1958KVa (60214) 936  
Medium: 75% dioxan, 0.1 M NaClO4

\*\*\*\*\*

C8H9NO2 HL (2591)  
N-Phenyl-N-acetohydroxamic acid; CH3.CO.N(OH)C6H5

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ gl KCl 25°C 0.20M C K1=2.39 B2= 4.05 2000FEc (60280) 937

\*\*\*\*\*

C8H9NO4 H2L (4520)  
Dehydroethanoic acid oxime;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ gl diox/w 35°C 50% U 1971MAa (60487) 938  
K(Mg+HL)=2.48  
K(Mg+2HL)=4.84

Medium: 50% dioxan, 0.1 M NaClO4

C8H9N3O5                      H2L                      CAS 5351-90-6    (2103)  
Salicylidenethiosemicarbazone; HO.C6H4.CH:N.NH-CS.NH2

C8H9N3O7                      H2L                      Uramildiacetic                      CAS 13055-06-5 (185)  
5-Amino-2,4,6-trioxo-1,3-perhydrodiazimino-N,N-diethanoic acid;

Mg++	gl	KNO3	25°C	0.10M	U T	K1=8.09	1977SVa (60615)	941
-----								
Mg++	cal	R4N.X	20°C	0.1M	C		1976ANb (60616)	942
						DH1= 2.34 kJ/mol		
in Me4NCI								

Mg++      gl    KN03    20°C 0.10M U      K1=8.19    B2=11.81    1963IFb (60618) 944

C8H9O3P H2L CAS 1707-08-0 (1969)  
2-Styrylphosphonic acid; C6H5.CH:CH.PO3H2

C8H10N2O4                      H2L                      Mimosine                      CAS 2116-55-4                      (2308)  
2-Amino-3-(3-hydroxy-4-oxo-1,4-dihydropyridin-1-yl)propanoic acid;

C8H10N2O4                      H2L                      Isomimisine                      CAS 60384-61-4                      (2314)  
2-Amino-3-(5-hydroxy-4-oxo-1,4-dihydropyridin-2-yl)propanoic acid;

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



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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  NaCl04 25°C  1.0M C                        1997GCa (61072) 953
                                         K(Mg+H2L=MgHL+H)=-7.79
                                         K(Mg+H2L=MgL+2H)=-16.04
                                         K(Mg+H2L=MgH-1L+3H)=-26.61
                                         K(Mg+2H2L=MgL2+4H)=-34.36
Ligand defined as H2L. K(Mg+2H2L=MgH-2L2+6H)=-55.78, K(MgL=MgH-1L+H)=-10.57,
K(MgH2L=MgHL+H)=-8.25, K(Mg+2H2L=MgH-1L2+5H)=-45.2 etc.
-----

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-----
Mg++       gl  KCl    25°C 0.10M U T H                  1986CVb (61073) 954
                                         K(Mg+HL)=4.68
                                         K(Mg+2HL)=6.78
Data for 0-37 C. At 37 C, K(Mg+HL)=4.30, K(Mg+2HL)=6.10.
DH(Mg+HL)=-19.9 kJ mol-1, DS=-23.4 J K-1 mol-1; DH(Mg+2HL)=-15.6, DS=11.8
-----

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-----
Mg++       nmr oth/un 27°C  ?  U    M                  1977GFa (61074) 955
                                         Keff(Mg(ATP)+L)=1.08
In D2O. pD=6.8
-----

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```

*****
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
-----
Mg++       gl  KCl    25°C 0.10M U T H      K1=5.16  B2= 7.30 1982CVa (61159) 956
Data for 0 and 37 C. DH(K1)=-21.8 kJ mol-1, DS(K1)=20 J K-1 mol-1;
DH(K2)=-11.2, DS(K2)=8.4.
-----

```

```

*****
C8H11NO7          H3L                        (6055)
N-Acetyl-3-carboxyglutamic acid; CH3.CO.NH.CH(CH(COOH).CH2.COOH)COOH
-----

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  NaCl   25°C 1.00M C          K1=1.15      1988BSa (61179) 957
*****
C8H11NO8          H4L                        CAS 24868-49-3 (2572)
2-Amino(N,N-diethanoic)-1,4-butanedioic acid;H0OCCH(N(CH2COOH)2)CH2COOH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  KNO3   25°C 0.10M U          K1=5.92      1975NGa (61184) 958
*****
C8H11NO8          H4L                        CAS 7408-20-0 (2608)
Amino-di(butanedioic acid);HN(CH(COOH)CH2.COOH)2
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  KNO3   25°C 0.1M C          K1=5.52      1999VZb (61199) 959
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Mg++ gl KNO3 25°C 0.1M U K1=5.50 1978MNa (61200) 960  
\*\*\*\*\*

C8H11NO8P2 H5L (6894)  
N-(4-Carboxyphenyl)aminomethylenedi(phosphonic acid); H0OC.C6H4.NH.CH(P03H2)2  
-----

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

Mg++ gl KNO3 25°C 0.10M U K1=7.57 1990GKa (61228) 961  
K(Mg+HL)=3.40  
\*\*\*\*\*

C8H12N2O8 H4L CAS 35039-85-1 (4537)  
1,2-Diaminoethane-N,N'-dimalononic acid; (H0OC)2.CH.NH.CH2.CH2.NH.CH(COOH)2  
-----

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

Mg++ gl KNO3 20°C 0.10M U K1=4.86 1973DSc (61490) 962  
K(Mg+HL)=2.0  
-----

Mg++ gl KNO3 25°C 0.10M U K1=4.93 1973MAb (61491) 963  
K(Mg+HL)=1.80  
-----

Mg++ gl KNO3 25°C 0.10M U K1=4.51 1972GBd (61492) 964  
K(Mg+HL)=2.34  
K(Mg+MgL)=2.49  
\*\*\*\*\*

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  
-----

Mg++ gl NaNO3 25°C 0.10M M M K1=1.22 2000KLb (61649) 965  
K(PtLA+Mg)=1.22

A=diethylenetriamine  
-----

Mg++ gl NaNO3 25°C 0.10M M K1=1.87 1992SCa (61650) 966  
\*\*\*\*\*

C8H13NO6 H3L (3835)  
2-Amino-2-carboxypropane-N,N-diethanoic acid; H0OCC(CH3)2N(CH2COOH)2  
-----

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

Mg++ gl KNO3 20°C 0.10M U K1=4.24 1974RMf (61756) 967  
-----

Mg++ gl KCl 20°C 0.10M U K1=6.30 1966IMa (61757) 968  
\*\*\*\*\*

C8H13NO6 H3L (5681)  
2-Aminobutanoic-N,N-diethanoic acid; CH3CH2CH(COOH)N(CH2COOH)2  
-----

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

-----  
Mg++ gl KNO3 20°C 0.10M U K1=5.31 1974RMf (61782) 969  
\*\*\*\*\*

C8H13NO6 H3L (3232)  
N-(Carboxymethyl)iminodipropionic acid; HOOC.CH2.N(CH2.CH2.COOH)2  
-----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	NaCl04	25°C	0.50M	C		K1=2.94	1995CDa (61808)	970
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Mg++	gl	KCl	30°C	0.10M	U		K1=3.6	1953CMa (61809)	971
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C8H13NO6S H3L (5675)  
2-Mercapto-1-aminoethane-N,N,S-triethanoic acid; HOOC.CH2.S.CH2.CH2.N(CH2COOH)2  
-----

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

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Mg++	gl	NaCl04	25°C	0.10M	U		K1=3.49 K(Mg+HL)=1.6	1975P0a (61817)	972
------	----	--------	------	-------	---	--	-------------------------	-----------------	-----

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C8H13N6O4P H2L (7462)  
9-[2-(Phosphonomethoxy)ethyl]-2,6-diaminopurine;  
-----

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

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Mg++	gl	NaNO3	25°C	0.10M	M		K1=1.89 K(Mg+HL)=0.5	1999BSa (61874)	973
------	----	-------	------	-------	---	--	-------------------------	-----------------	-----

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C8H14N2O4 H2L CAS 124099-98-5 (5607)  
1,4-Piperazine-N,N'-diethanoic acid; HOOC.CH2.C4H8N2.CH2.COOH  
-----

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

-----

Mg++	cal	NaCl04	25°C	0.10M	U	H	K1=2.4	1985EHa (61943)	974
------	-----	--------	------	-------	---	---	--------	-----------------	-----

DH(K1)=1.4 kJ mol<sup>-1</sup>, DS=50.9 J K<sup>-1</sup> mol<sup>-1</sup>  
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Mg++	EMF	KCl	20°C	0.10M	U		K1=1.5	1963IPb (61944)	975
------	-----	-----	------	-------	---	--	--------	-----------------	-----

Method: H electrode  
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C8H14N2O6P2 HL (7465)  
N-(3-Pyridylmethyl)imino-bis(methylphosphonic acid);  
-----

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

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Mg++	gl	KCl	25°C	0.20M	C		K1=4.25 B(MgHL)=13.29 B(MgH2L)=18.78 B(MgH3L)=23.19 B(MgH-1L)=-7.60	1999MKa (61967)	976
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C8H14N4O5                      HL      Tetraglycine                      CAS 637-84-3    (1849)  
 Glycyl-Glycyl-Glycyl-Glycine; H2N.CH2.CO.NH.CH2.CO.NH.CH2.CO.NH.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.15M	U		K1=1.32	1958LCa (62021)	977

C8H14O4                              H2L      Suberic acid                      CAS 505-48-6    (517)  
 Octanedioic acid; HOOC.(CH2)6.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	con	none	25°C	0.0	U		K1=2.10	1984TWa (62094)	978

C8H14O7                              H2L                                              (241)  
 Di(carboxymethoxy)ethyl ether; (HOOC.CH2.O.CH2.CH2)2O

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	U		K1=1.8	1974MSa (62146)	979

C8H15NO6                              H2L                                              CAS 92511-22-3    (6074)  
 N-(1,1-Di(hydroxymethyl)ethyl)iminoethanoic acid; (HO.CH2)2C(CH3).N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaClO4	25°C	1.0M	C		K1=1.96	1981ASb (62216)	980

C8H15N2O9P                              H4L                                              (3847)  
 O-Phosphoryl-L-seryl-L-glutamic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.15M	U		K1=2.09	19620Sa (62235)	981

K(Mg+HL)=1.63  
 K(Mg+MgL)=1.81  
 K(Mg+MgHL)=1.51  
 K(Mg2L+H)=7.49

K(Mg+H2L)=1.00

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
Mg++	cal	NaClO4	25°C	0.10M	U	H	K1=3.2	1983EHa (62468)	982

DH1=23.3 kJ mol-1, DS1=139.9 J K-1 mol-1

Mg++	gl	KNO3	20°C	0.10M	U		K1=2.82	1966MKb (62469)	983
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Mg++ gl KCl 20°C 0.10M U K1=2.8 1958ISa (62470) 984  
\*\*\*\*\*

C8H16N2O4 H2L CAS 13288-40-9 (3237)  
1,2-Diaminoethane-N,N'-di(3-propanoic acid); (HOOCCCH2CH2NHCH2.)2

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

Mg++ gl KCl 20°C 0.10M U K1=2.8 1958ISa (62499) 985  
-----

Mg++ gl KCl 30°C 0.10M U K1=1.6 1953CCb (62500) 986  
\*\*\*\*\*

C8H16N2O4 H2L (266)  
N,N'-Dimethylethylenediamine-N,N'-diethanoic acid;

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

Mg++ gl KNO3 25°C 0.10M C K1=5.36 1993WLa (62524) 987  
K(Mg+HL)=1.3  
-----

Mg++ cal NaClO4 25°C 0.10M U H K1=5.2 1983EHa (62525) 988  
DH1=8.5 kJ mol-1, DS1=128.0 J K-1 mol-1  
-----

Mg++ EMF oth/un 25°C 0.0 U H 1956MAa (62526) 989  
Method: H electrode. DG(K1)=-32.6 kJ mol-1, DH=4, DS=130 J K-1 mol-1  
\*\*\*\*\*

C8H16N2O4 H2L CAS 38937-66-5 (5912)  
N,N-Dihydroxyoctanediamide; HN(OH).CO.(CH2)6.CO.NH(OH)

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

Mg++ gl NaNO3 25°C 0.10M C K1=3.73 1989EHa (62537) 990  
B(MgHL)=12.53  
-----

\*\*\*\*\*  
C8H16N2O6 H2L CAS 50730-95-5 (4548)  
Ethylenediiminobis(3-hydroxy-2-propanoic acid);

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

Mg++ EMF oth/un 20°C 0.10M U K1=3.20 1972DKa (62582) 991  
-----

Mg++ gl KNO3 20°C 0.10M U K1=3.2 1970DKa (62583) 992  
\*\*\*\*\*

C8H16O4 L 12-Crown-4 CAS 294-93-9 (174)  
1,4,7,10-Tetraoxacyclododecane; cyclo(-O.(CH2.CH2.O)3.CH2.CH2-)

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

Mg++ nmr non-aq 27°C 100% C K1=4.14 2000SMg (62657) 993  
Medium: acetonitrile. Method: competitive 7Li nmr technique.  
-----

Mg++ EMF non-aq 25°C 100% U T K1=2.61 B2=6.2 1982MRb (62658) 994  
Medium: anhydrous propylene carbonate, 0.1M Et4NC104

\*\*\*\*\*

C8H17N03S HL CHES CAS 103-47-9 (7489)

2-(N-Cyclohexylamino)ethanesulfonic acid;

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

Mg++ gl KNO3 25°C 0.10M C K1=3.84 2000ADa (62775) 995

\*\*\*\*\*

C8H17N304 H2L CAS 100585-61-3 (1588)

3,6,9-Triazaundecanedioic acid; (HOOC.CH2.NH.CH2.CH2)2NH

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

Mg++ gl NaCl 25°C 0.15M C K1=2.62 1990JKa (62808) 996

\*\*\*\*\*

C8H18N202 L CAS 122-96-3 (5902)

N,N-Bis(2-hydroxyethyl)piperazine;

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

Mg++ gl NaCl 25°C 0.10M C K1=2.12 1999HLb (62857) 997

\*\*\*\*\*

C8H18N2010P2 H6L EDDADPO CAS 2310-83-0 (2436)

1,2-Diaminoethane-N,N'-diethanoic-N,N'-dimethylphosphonic acid;  
(-CH2.N(CH2.COOH)(CH2.PO3H2))2

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

Mg++ gl KCl 25°C 0.10M U K1=8.11 1965DKb (62895) 998

\*\*\*\*\*

C8H18N2010P2 H6L CAS 2310-83-0 (5667)

1,2-Diaminoethane-N,N'-diethanoic-N,N'-dimethylphosphonic acid;  
(HOOC.CH2)2NCH2CH2N(CH2.PO3H2)2

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

Mg++ gl KNO3 25°C 0.10M U 1976TIa (62917) 999

K(Mg+H2L)=3.7

\*\*\*\*\*

C8H1804 L Triglyme CAS 112-49-2 (2358)

1,2-Bis(methoxyethoxy)ethane; CH3O.C2H4O.CH2.CH2.OC2H4.OC2H3

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

Mg++ cal non-aq 25°C 100% C H 1992BSc (62980)1000

Medium: propylene carbonate. DH(K1)=-6.9 kJ mol<sup>-1</sup>.

-----  
Mg++ con non-aq 25°C 100% C K1=3.1 1992MSe (62981)1001

Medium: 100% MeOH. Anion: picrate. Also data for nitrophenolate anions.

\*\*\*\*\*

C8H18O5 L Tetra-Et-Glycol CAS 112-60-7 (5664)  
2,2'-(Oxybis(2,2-ethanedioxy))-bis-ethanol; O(CH2.CH2.O.CH2.CH2.OH)2

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

Mg++ con non-aq 25°C 100% C K1=2.8 1992MSe (63001)1002

Medium: 100% MeOH. Anion: picrate. Also data for nitrophenolate anions.

\*\*\*\*\*

C8H19NO5 L Bis-tris CAS 6976-37-0 (2827)

Bis-(2-hydroxyethyl)imino-tris(hydroxymethyl)methane;

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

Mg++ gl mixed 25°C 90% C I K1=0.91 1982SSf (63052)1003

Medium: 90% DMSO/H2O

-----  
Mg++ gl KNO3 25°C 1.0M C K1=0.34 1980SAb (63053)1004

K(Mg(ATP)+L)=0.59

\*\*\*\*\*

C8H19NO6P2 H4L CAS 5995-40-4 (1338)

N-Cyclohexyliminobis(methylenephosphonic) acid; C6H11.N(CH2PO3H2)2

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

Mg++ gl KCl 25°C 0.20M C K1=4.04 1999MKa (63083)1005

B(MgHL)=15.43

B(MgH2L)=20.39

\*\*\*\*\*

C8H20N4 L Cyclen CAS 294-90-6 (10)

1,4,7,10-Tetraazacyclododecane; cyclo(-(NH.CH2.CH2.)4-)

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

Mg++ gl KNO3 25°C 0.50M C K1=2.25 1988RPb (63284)1006

\*\*\*\*\*

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  
-----

Mg++ gl KCl 25°C 0.10M U K1=<2 1965DKb (63333)1007

\*\*\*\*\*

C8H23N5 L Tetren CAS 112-57-2 (715)

1,4,7,10,13-Pentaazatridecane (Tetraethylenepentamine);

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

Mg++ gl NaCl 25°C 0.0 C K1=1.67 1999SFC (63466)1008

K(Mg+HL)=1.05  
K(Mg+H2L)=0.55  
K(Mg+H3L)=0.0  
K(Mg+H4L)=-0.5

Extrapolated from data for 0.03-0.96 M NaCl using the Pitzer equation.

K(Mg+MgL)=-0.1

\*\*\*\*\*

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  
-----

Mg++ gl NaNO3 25°C 0.50M M K1=0.00 1998KSa (63504)1009

\*\*\*\*\*

C9H5NOBr2 HL CAS 521-74-4 (3279)

5,7-Dibromo-8-hydroxyquinoline;

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

Mg++ dis R4N.X 20°C 1.0M U K1=4.76 B2=9.65 1969SRb (63516)1010

Medium: 1 M NH4Cl, 17-20 C

\*\*\*\*\*

C9H5NOI2 HL CAS 83-73-8 (3280)

5,7-Di-iodo-8-hydroxyquinoline;

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

Mg++ gl diox/w 35°C 75% U K1=3.20 B2=6.15 1971MAb (63556)1011

Medium: 75% v/v dioxan, 0.1 M NaCl04

\*\*\*\*\*

C9H6NOCl HL CAS 130-16-5 (1268)

5-Chloro-8-hydroxyquinoline;

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

Mg++ gl diox/w 25°C 60% U K1=5.38 B2=10.43 1973SCd (63657)1012

Medium: 60% dioxan, 0.1 M NaCl04

\*\*\*\*\*

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  
-----

Mg++ gl oth/un 20°C 0.03M U K1=3.68 1977KCb (63773)1013

K1=3.08 by solubility

-----  
Mg++ gl KNO3 28°C 0.10M U K1=3.25 B2=7.20 1971LSb (63774)1014

-----  
Mg++ gl oth/un 25°C 0.0 U K1=3.80 B2=6.20 1952NEa (63775)1015

\*\*\*\*\*

C9H6N2O3 HL CAS 5437-99-0 (3865)  
5-Nitro-8-hydroxyquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	diox/w	25°C	60%	U		K1=4.27 B2=8.17	1973SCd (63859)	1016

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
Mg++	gl	oth/un	25°C	0.0	U		K1=3.28 B2=4.70	1955NUa (63910)	1017

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	alc/w	25°C	95%	U		K1=2.28	1993GSa (64219)	1018

Medium: 95% w/w EtOH/H2O, 0.05 M Et4NClO4, by competitive spectrophotometry

Mg++	sp	non-aq	25°C	100%	U	I	K1=4.03 B2=6.33	1992GSa (64220)	1019
------	----	--------	------	------	---	---	-----------------	-----------------	------

Medium: MeCN. In acetone:K1=2.25, K2=1.80; in MeOH:K1=2.01. By fluorimetry

Mg++	gl	diox/w	25°C	60%	U		K1=5.79 B2=11.02	1973SCd (64221)	1020
------	----	--------	------	-----	---	--	------------------	-----------------	------

Medium: 60% dioxan, 0.1 M NaClO4

Mg++	kin	oth/un	25°C	0.10M	U	M	K1=4.48	1972HMB (64222)	1021
------	-----	--------	------	-------	---	---	---------	-----------------	------

K(MgA+L)=5.08  
K(MgB+L)=3.05  
H3A=nitrilotriethanoic acid, H3B=uramildietanoic acid.

Mg++	kin	oth/un	25°C	0.30M	U	M		1972HMB (64223)	1022
------	-----	--------	------	-------	---	---	--	-----------------	------

K(MgA+L)=3.72  
K(MgB+L)=3.70  
K(MgC+L)=3.72

H3A=adenosine diphosphate; H4B=ATP; H5C=tripolyphosphoric acid

Mg++	dis	R4N.X	20°C	1.0M	U		K1=4.08 B2=8.18	1969SRb (64224)	1023
------	-----	-------	------	------	---	--	-----------------	-----------------	------

17-20 C. Medium: 1 M NH4Cl

Mg++	sp	KNO3	16°C	0.10M	U		K1=4.35	1966HEb (64225)	1024
------	----	------	------	-------	---	--	---------	-----------------	------

Mg++	gl	diox/w	30°C	75%	U		K1=8.8 B2=16.2	1954UFa (64226)	1025
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Mg++	gl	oth/un	20°C	0.01M	U		K1=4.5	1953ALa (64227)	1026
------	----	--------	------	-------	---	--	--------	-----------------	------

Mg++	gl	diox/w	20°C	50%	U		K1=5.04 B2=9.33	1953NAb (64228)	1027
------	----	--------	------	-----	---	--	-----------------	-----------------	------

Medium: 50% dioxan, 0.3 M NaCl04

Mg++ gl diox/w 25°C 50% U K1=6.38 B2=11.81 1952JFa (64229)1028

Mg++ gl oth/un 20°C 0.0 U K1=4.74 1952NAa (64230)1029

Mg++ gl oth/un 20°C 0.0 U K1=3.27 1951NLa (64231)1030

Mg++ gl diox/w 25°C 70% U K1=6.88 B2=12.84 1949MMa (64232)1031

\*\*\*\*\*

C9H7N04S H2L Sulfoxine CAS 84-88-8 (448)

8-Hydroxyquinoline-5-sulfonic acid;

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

Mg++ gl diox/w 25°C 60% U K1=5.70 B2=10.49 1973SCd (64520)1032

Medium: 60% dioxan, 0.1 M NaCl04

Mg++ gl KNO3 25°C 0.10M U K1=4.06 B2=7.63 1959RGa (64521)1033

Mg++ gl oth/un 25°C 0.0 U K1=4.79 B2=8.19 1954NUa (64522)1034

Mg++ gl oth/un 20°C 0.01M U K1=4.8 B2=8.5 1953ALa (64523)1035

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C9H7N302S 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

Mg++ gl alc/w 25°C 50% U 1967NPb (64694)1036

K(Mg+HL) < 3

Medium: 50% MeOH, 0.1 M NaCl04

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C9H8N2 L CAS 578-66-5 (503)

8-Aminoquinoline;

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

Mg++ gl KCl 20°C 0.10M U K1=1.43 1957WSa (64781)1037

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C9H8N20 HL CAS 17056-96-1 (3258)

8-Hydroxy-4-methylcinnoline;

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

Mg++ gl diox/w 20°C 50% U K1=3.66 B2=6.24 1954IRa (64790)1038

Medium: 50% dioxan, 0.3 M NaCl04

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C9H8N202S HL (8279)

Dehydroxydemethyldefferrithiocin;





K(MgL+B)=3.08  
 Medium: 40% v/v EtOH/H2O, 0.10 M KNO3. K(MgL+ala)=2.63, K(MgL+gly)=2.47,  
 H2A is catechol, HB is hydroxyproline.

-----  
 Mg++ gl alc/w 30°C 40% M M 1995RRd (65215)1046

K(Mg(phen)+L)=2.90

K(MgA+L)=1.56

Medium: 40% v/v EtOH/H2O, 0.10 M KNO3. H2A is salicylic acid.

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C9H10N2O2 HL (3265)

Salicylaldehyde acetylhydrazone; HO.C6H4.CH:N.NH.CO.CH3

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

Mg++ gl alc/w 20°C 50% U K1=4.2 B2=7.5 1959HOa (65237)1047

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C9H10N2O4 H2L CAS 5648-29-1 (3871)

4-(N',N'-Dimethylamino)pyridine-2,6-dicarboxylic acid;

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

Mg++ gl NaClO4 22°C 0.10M U K1=3.08 1964BBa (65265)1048

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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

Mg++ gl diox/w 25°C 50% U 1969ZSa (65275)1049

K(Mg+H2L)=2.15

K(Mg+HL)=4.30

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C9H10O2 HL CAS 699-91-2 (4594)

2-Hydroxy-3-methylacetophenone; HO(CH3).C6H3.CO.CH3

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

Mg++ gl diox/w 30°C 75% U K1=7.87 1970KDa (65320)1050

Medium: 50% v/v dioxan, 0.5 M NaClO4

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C9H10O2 HL CAS 6921-64-8 (4595)

2-Hydroxy-4-methylacetophenone; HO(CH3).C6H3.CO.CH3

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

Mg++ gl diox/w 30°C 75% U K1=5.31 1970KDa (65326)1051

Medium: 50% v/v dioxan, 0.5 M NaClO4

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C9H10O2 HL CAS 1450-72-2 (4596)

2-Hydroxy-5-methylacetophenone; HO(CH3).C6H3.CO.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	diox/w	30°C	75%	U		K1=6.09 B2=10.24	1970GMe (65333)	1052
Medium: 50% v/v dioxan, 0.5 M NaClO4									
*****									
C9H10O2		HL					CAS 610-99-1	(4597)	
2-Hydroxypropionophenone;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	diox/w	30°C	75%	U		K1=5.52	1970KDa (65343)	1053
Medium: 75% dioxan, 0.1 M NaClO4									
*****									
C9H10O2S		HL					CAS 21101-79-1	(3267)	
2-Ethylthiobenzoic acid; CH3.CH2.S.C6H4.COOH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	diox/w	30°C	50%	U		K1=2.18 B2=5.47	1956IFa (65407)	1054
*****									
C9H10O3		H2L					CAS 1643-34-0	(4598)	
2,6-Dihydroxy-4-methylacetophenone; (HO)2(CH3).C6H2.CO.CH3									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	diox/w	30°C	75%	U		K1=3.56	1970KDa (65429)	1055
Medium: 75% dioxan, 0.1 M NaClO4									
*****									
C9H10O3		HL					CAS 118-61-6	(3858)	
Salicylic acid ethyl ester; HO.C6H4.CO.OC2H5									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	diox/w	30°C	75%	U		K1=5.36	1964JVa (65492)	1056
Medium: 75% dioxan, 0.1 M NaClO4									
*****									
C9H10O4		H3L					CAS 39223-40-0	(1825)	
3,4-Dihydroxyphenylpropanoic acid; (HO)2.C6H3.CH2.CH2.COOH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaClO4	30°C	0.10M	U		K1=4.90	1966APb (65563)	1057
*****									
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
Mg++	gl	NaClO4	25°C	0.19M	U		K1=6.00	1986MSc (65637)	1058

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 C9H11NO2                      HL      Phenylalanine      CAS 63-91-2    (2)  
 2-Amino-3-phenylpropanoic acid; H2N.CH(CH2.C6H5)COOH

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	NaCl	20°C	0.15M	U	M	K1=1.63	1983VDb (65921)	1059
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C9H11NO3                      H2L      Tyrosine                      CAS 60-18-4    (4)  
 2-Amino-3-(4-hydroxyphenyl)propanoic acid; HO.C6H4.CH2.CH(NH2).COOH

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	oth/un	20°C	0.01M	U			1952ALa (66209)	1060
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K(Mg+HL)=2

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C9H11NO4                      H3L      DOPA                              CAS 59-92-7    (5)  
 2-Amino-3-(3,4-dihydroxyphenyl)propanoic acid; H2NCH(CH2C6H3(OH)2)COOH

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	NaCl	25°C	0.12M	U	M	K1=4.67	1978RMc (66390)	1061
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K(Mg(ATP)+L)=3.67

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Mg++	gl	KNO3	25°C	1.0M	U		K1=4.71    B2=6.71	1972GJa (66391)	1062
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K(Mg+H2L)=1

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C9H11NO5                      H2L                              CAS 57362-11-5    (3876)  
 N-(2'-Furfuryl)iminodiethanoic acid; C4H3O.CH2.N(CH2.COOH)2

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	KNO3	20°C	0.10M	U		K1=2.78	1963IFa (66449)	1063
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C9H11N3O7                      H3L                              (3877)  
 N-(1-Methyl-2,4,6-trioxo-perhydropyrimidinyl)iminodiethanoic acid;

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	KNO3	20°C	0.10M	U		K1=8.23    B2=11.95	1963IFb (66522)	1064
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C9H12N2O6                      HL      Uridine                              CAS 58-96-8    (828)  
 Uracil-1-beta-D-ribofuranoside;

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	KNO3	25°C	0.10M	C T HM		K1=3.14    B2=6.12	1987KRa (66689)	1065
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Mg++	gl	KNO3	35°C	0.10M	U	M	K1=2.71	1986RRa (66690)	1066
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Ternary complexes with glycine, oxalate, histidine and histamine

C9H12N2O10 H5L CAS 80921-06-8 (2924)  
2,3-Diaminopropanoic-N,N'-di-1,3-propanedioic acid;  
(HOOC)2CH.NH.CH(COOH).CH2.NH.CH(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.1M	U			K1=7.15	1982KBe (66729)	1067

C9H13NO2                      H2L      Phenylephrine                      CAS 61-76-7      (2759)  
3-Hydroxy-alpha-(methylaminomethyl)benzyl alcohol; HO.C6H4.CH(CH2.NH.CH3)OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KN03	22°C	0.25M	U			K(Mg+HL)=2.64	1984GKa	(66810)1068

C9H13NO3                      H2L                      (-)Adrenaline                      CAS 51-43-4                      (252)  
4-(1-Hydroxy-2-(methylamino)ethyl)-1,2-dihydroxybenzene,  
Epinephrine; CH3NHCH(OH)C6H3(OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl04	25°C	1.0M	C			1997GCa (66855)	1069
							K(Mg+H2L=MgHL+H)=-6.94		
							K(Mg+H2L=MgL+2H)=-15.81		
							K(Mg+H2L=MgH-1L+3H)=-25.80		
							K(Mg+2H2L=MgL2+4H)=-31.74		

Ligand defined as  $\text{H}_2\text{L}$ .  $K(\text{Mg} + 2\text{H}_2\text{L} = \text{MgH} - 1\text{L} + 5\text{H}) = -42.6$ ,  $K(\text{MgHL} = \text{MgL} + \text{H}) = -8.87$ ,  $K(\text{MgL} = \text{MgH} - 1\text{L} + \text{H}) = -9.99$  etc.

Mg++      gl   KCl    25°C 0.10M U T H      K1=6.00    B2= 8.19    1983CVa (66856)1070  
Data for 0 and 37 C. DH(K1)=-40.5 kJ mol<sup>-1</sup>, DS(K1)=-38.2 J K<sup>-1</sup> mol<sup>-1</sup>;  
DH(K2)=-18.1, DS(K2)=-7.6.

C9H13N06 H3L (3881)  
2,6-Dicarboxypiperidyl-N-ethanoic acid:

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	U			K1=5.06	1968KTd (66879)	1071

C9H13N08 H4L (7012)  
1,3-Dicarboxypropane-1-iminodiethanoic acid; HOOC.CH(N(CH<sub>2</sub>COOH)<sub>2</sub>)CH<sub>2</sub>CH<sub>2</sub>COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	U		K1=5.93	1977GNb	(66904)1072

Mg++      g1    KNO3    25°C    0.1M U      K1=5.18      1976NGb (66905)1073

C9H13N2O9P                      H3L              UMP-5                      CAS 58-97-9    (2948)  
Uridine-5'-monophosphoric acid;

Mg++	gl	KNO <sub>3</sub>	35°C	0.10M	U	M	1992RAd (66963)1075
K(Mg+HL)=1.80							
K(Mg+HL+Gly)=2.07							
K(Mg+HL+His)=7.12							
K(Mg+HL+histamine)=6.50							

Mg++      gl    NaNO3    25°C 0.10M C      1988MSa (66965)1077  
K(Mg+HL)=1.56

Mg++ gl NaCl04 25°C 0.10M C 1984SSe (66966)1078  
K(Mg+HL)=1.48

Mg++ cal R4N.X 30°C 0.20M U 1973SBb (66967)1079  
K(Mg+HL)=1.70  
Medium: 0.2 M Me4NBr. micro-constants are also given

Mg++ ix NaCl 23°C 0.10M U 1958WAa (66968)1080  
K(Mg+HL)=2.25

C9H13N3O5                      L                      Cytidine                      CAS 65-46-3                      (2152)  
Cytidine, Cytosine-1-beta-D-ribofuranoside;

Mg++	gl	KN03	35°C	0.10M	C	M	K1=2.42	1985RRc (67047)1082
							B(MgHL(Gly))=11.78	
							B(MgL(oxalate))=8.81	
							B(MgHL(His))=11.48	
							B(MgHL(histamine))=11.44	

C9H13N4O4P                      H2L                      3-deaza-PMEA                      CAS 121150-00-3                      (6140)  
9-[2-(Phosphonomethoxy)ethyl]-3-deazaadenine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	0.10M	C		K1=1.85 K(MgL+H)=7.41 K(Mg+HL)=1.43	1998BHa (67097)	1084
Also data for the 1-deaza- and 7-deaza-adenine homologues									
*****									
C9H14N04P		H2L					(8075)		
2-Amino-3-hydroxy-3-phenylpropane-3-phosphonic acid;									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaClO4	25°C	0.1M	U		K1=1.52	1975SLa (67110)	1085
*****									
C9H14N2O9		H4L					CAS 56360-11-3	(2576)	
2-Hydroxy-1,3-diaminopropane-N,N'-di(1,3-propanedioic acid)									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	U		K1=3.96 K(Mg+HL)=3.20 K(Mg+MgL)=1.95	1975KGa (67134)	1086
*****									
C9H14N2O12P2		H4L		UDP			CAS 58-98-0	(3288)	
Uridine-5'-diphosphoric acid;									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	0.10M	M		K1=3.32 K(Mg+H2L)=1.6 K(MgHL+H)=4.65	1999SSa (67155)	1087
-----									
Mg++	gl	KNO3	25°C	0.10M	U		K1=3.32	1995SBa (67156)	1088
-----									
Mg++	gl	R4N.X	25°C	0.10M	C	T	K(Mg+HL)=3.35	1991SMa (67157)	1089
IUPAC evaluation									
-----									
Mg++	cal	R4N.X	30°C	0.20M	U		K(Mg+HL)=3.45	1973SBb (67158)	1090
Medium: 0.2 M Me4NBr. micro-constants are also given									
-----									
Mg++	ix	NaCl	23°C	0.10M	U		K1=3.17	1958WAa (67159)	1091
*****									
C9H14N3O7P		H2L		dCMP			CAS 1032-65-1	(5783)	
Deoxycytidine-5'-monophosphoric acid;									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

2-Aminopentanoic-N,N-diethanoic acid;  $C_3H_7C(COOH)N(CH_2COOH)_2$

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	20°C	0.10M	U		K1=5.36	1974RMf (67402)	1101
*****									
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
Mg++	gl	NaClO4	25°C	0.50M	C		K1=2.96	1995CDa (67430)	1102
Mg++	gl	KCl	30°C	0.10M	U		K1=<1	1953CMa (67431)	1103
*****									
C9H15NO6			H3L				CAS 95482-53-4	(3270)	
N-(2-Carboxyethyl)-3,3-iminodipropoic acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	30°C	0.10M	U		K1=3.6	1953CMa (67441)	1104
*****									
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
Mg++	gl	KCl	25°C	0.20M	C		K1=4.34	1999MKa (67460)	1105
							B(MgHL)=14.13		
							B(MgH2L)=19.03		
							B(MgH-1L)=-7.88		
*****									
C9H15N2O15P3			H5L	UTP			CAS 63-39-8	(407)	
Uridine-5'-triphosphoric acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	R4N.X	25°C	0.10M	C	TIH R		1991SMa (67520)	1106
							K(Mg+HL)=4.43		
							K(Mg+H2L)=2.58		
IUPAC evaluation. DH(K1)=18.4 kJ mol-1 (tentative)									
Mg++	gl	NaNO3	25°C	0.10M	C			1987STb (67521)	1107
							K(Mg+HL)=4.27		
							K(MgL+H)=4.90		
							K(Mg+H2L)=2.72		
Mg++	gl	KNO3	25°C	0.10M	U	T H	K1=5.42	1983RRe (67522)	1108
Also data for 35 and 45 C. At 45 C: K1=5.61.									
DH(K1)=17.5 kJ mol-1, DS(K1)=161 J K-1 mol-1.									
Mg++	gl	NaClO4	25°C	0.10M	C			1977SIc (67523)	1109



K(Mg+HL)=4.00									
Mg++	gl	KN03	35°C	0.10M	U			1976KR	(67524)1110
K(Mg+HL)=5.53									
Mg++	cal	R4N.X	30°C	0.20M	U			1973SB	b (67525)1111
K(Mg+HL)=4.32									
K(Mg+H2L)=4.15									
K(Mg+H3L)=2.46									
Medium: 0.2 M Me4NBr. micro-constants are also given									
Mg++	ix	NaCl	23°C	0.10M	U			1958WA	a (67526)1112
K(Mg+HL)=4.02									
*****									
C9H15N3O11P2		H3L		CDP		CAS 63-38-7 (2187)			
Cytidine-5'-diphosphoric acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaN03	25°C	0.10M	M		K1=3.25 K(Mg+HL)=1.6 K(MgL+H)=4.74	1999SS	a (67583)1113
Mg++	gl	R4N.X	25°C	0.10M	C	T	K1=3.44 K(Mg+HL)=1.62 K(Mg+MgL)=1.0	1991SM	a (67584)1114
IUPAC evaluation									
Mg++	gl	KN03	15°C	0.10M	U		K1=3.22 K(Mg+HL)=1.60	1972FS	a (67585)1115
Mg++	sp	R4N.X	?	0.05M	U			1961HB	a (67586)1116
K(?)=1.5									
Medium: Me4NCl									
*****									
C9H16N2O6		H2L		CAS 24709-35-8 (3274)					
N-(2-(2-Ethoxycarbonylamino)ethyl)iminodiethanoic acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	20°C	0.10M	U		K1=2.68	1955SA	a (67626)1117
*****									
C9H16N3O14P3		H4L		CTP		CAS 65-47-4 (406)			
Cytidine-5'-triphosphoric acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	R4N.X	25°C	0.10M	C	TI	R K1=4.44 K(Mg+HL)=2.22 K(Mg+MgL)=1.8	1991SM	a (67697)1118

## IUPAC evaluation

Mg++ gl NaNO3 25°C 0.10M C K1=4.20 1987STb (67698)1119  
 K(Mg+HL)=2.27  
 K(MgL+H)=4.62

Mg++ gl KNO3 25°C 0.10M U T H K1=4.19 1983RRe (67699)1120  
 K(Mg+HL)=3.85

Also data for 35 and 45 C. At 45 C: K1=4.30, K(Mg+HL)=3.98.

DH(K1)=10.0 kJ mol<sup>-1</sup>, DS(K1)=114 J K<sup>-1</sup> mol<sup>-1</sup>; DH(Mg+HL)=-11.7, DS=113

Mg++ gl NaClO4 25°C 0.10M C K1=4.08 1977SIc (67700)1121

Mg++ gl KNO3 35°C 0.1M C I K1=4.21 1975TRc (67701)1122  
 K(Mg+HL)=3.93

Mg++ gl KNO3 15°C 0.10M U K1=4.03 1972FSa (67702)1123  
 K(Mg+HL)=2.18

Mg++ sp R4N.X ? 0.05M U K(?)=1.95 1961HBa (67703)1124

Medium: Me4NCl

Mg++ ix NaCl 23°C 0.10M U K1=4.01 1958WAa (67704)1125

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C9H16O4 H2L CAS 57218-62-9 (484)

Ethyl(2-methylpropyl)propanedioic acid; HOOCC(C2H5)(CH2.CH(CH3)2).COOH

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

Mg++ sp none 25°C 0.0 U T K1=3.10 1976K0a (67784)1126

Also data at 15,30,35 C. Determined colourimetrically

\*\*\*\*\*

C9H17NO6 H2L CAS 58144-32-4 (6077)

N-(1,1-Di(hydroxymethyl)propyl)iminodiethanoic acid;

(HO.CH2)2C(CH2.CH3).N(CH2.COOH)2

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

Mg++ gl NaClO4 25°C 1.0M C K1=2.58 1981ASb (67829)1127

\*\*\*\*\*

C9H18N2O4 H2L CAS 18992-11-5 (5913)

N,N-Dihydroxynonanediarnide; HN(OH).CO.(CH2)7.CO.NH(OH)

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

Mg++ gl KCl 25°C 0.20M C K1=4.15 1999FEa (67935)1128  
 B(MgHL)=12.69

Mg++ gl NaNO3 25°C 0.10M C K1=4.37 1989EHa (67936)1129

B(MgHL)=12.64

\*\*\*\*\*

C9H19N2O4+ H2L (3277)

2-Di(carboxymethyl)aminoethyltrimethylammonium cation

+

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

Mg++ gl KCl 20°C 0.10M U K1=1.42 1955SAa (68000)1130

\*\*\*\*\*

C9H20N2O5S HL HEPPSO CAS 68399-78-0 (2011)

N-(2-Hydroxyethyl)piperazine-N'-(2-hydroxypropanesulfonic acid);

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

Mg++ gl KNO3 25°C 0.10M C K1=3.69 2001AOa (68053)1131

\*\*\*\*\*

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  
-----

Mg++ gl KCl 25°C 0.15M U K1=1.63 19620Sa (68075)1132

\*\*\*\*\*

C9H20O14P2 H3L (4662)

1-(Glycerylphosphoryl)-L-myoinositol-5-phosphate;

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

Mg++ gl R4N.X 20°C 0.10M U K1=2.19 1969HRa (68128)1133

Medium: 0.1 (C3H7)4NI

\*\*\*\*\*

C9H21O17P3 H5L CAS 98975-41-8 (3885)

1'-Glycerylphosphorylinositol-3,4-diphosphoric acid;

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

Mg++ gl R4N.X 20°C 0.10M U K1=3.45 1969HRa (68224)1134

K(Mg+HL)=2.37

Medium : 0.1 (C3H7)4NI

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

Mg++ gl R4N.X 20°C 0.10M U K1=3.5 1965HFb (68225)1135

K(Mg+HL)=2.4

Medium: (C3H7)4NI

\*\*\*\*\*

C9H24N3O6P3 H3L (7110)

1,4,7-Triazacyclononane-1,4,7-triyltrimethylenetris(phosphinic acid);

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

Mg++            gl   KNO3    25°C 0.10M C            K1=5.36            1995BLa (68291)1136  
B(MgH-1L)=3.52

\*\*\*\*\*

C9H24N3O9P3                    H6L       NOTPH                    CAS 83843-39-3 (224)  
1,4,7-Triazacyclononane-N,N',N''-tris(methylenephosphonic acid);

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

Mg++            gl   KNO3    25°C 1.00M U                    1988MKb (68307)1137  
B(Mg2L)=11.6  
K(Mg+MgL)=0.55

-----  
Mg++            gl   KCl      25°C 1.0M U                    K1=11.01            1984KMa (68308)1138  
K(Mg+HL)=5.44

-----  
Mg++            gl   oth/un 25°C 1.00M U                    K1=11.01            1982PSc (68309)1139  
K(Mg+HL)=5.44

\*\*\*\*\*

C9H28N3O15P5                    10L       DTPPH                    CAS 15827-60-8 (2921)  
Diethylenetriamine-N,N,N',N'',N''-penta(methylphosphonic acid);  
H2O3PCH2.N(CH2CH2.N(CH2PO3H2)2)2 H

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

Mg++            gl   KCl      25°C 0.10M U                    K1=6.40            1967KDa (68404)1140  
K(Mg+HL)=5.40  
K(Mg+H2L)=4.70  
K(Mg+H3L)=3.94  
K(Mg+H4L)=3.13

K(Mg+H5L)=2.36

\*\*\*\*\*

C10H6O8                    H4L       Pyromellitic Ac    CAS 89-05-4 (519)  
Benzene-1,2,4,5-tetracarboxylic acid; C6H2.(COOH)4

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

Mg++            gl   oth/un 25°C 1.0M C                    K1=2.63            1991DDb (68505)1141  
B(MgHL)=7.41  
B(MgH2L)=10.92  
B(MgH3L)=13.07  
B(Mg2L)=3.72

Medium: 1.0 M LiCl.

-----  
Mg++            con none    25°C 0.0 U                    K1=3.69            1984TWa (68506)1142

\*\*\*\*\*

C10H7NO2                    HL                    CAS 131-91-9 (2668)  
1-Nitroso-2-naphthol, alpha-Nitroso-beta-naphthol;

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

Mg++ gl diox/w 30°C 75% U I K1=6.05 B2=10.77 1957CFa (68570)1143  
In 50% dioxan K1=3.60, K2=3.47

Mg++ gl diox/w 30°C 75% U K1=6.2 B2=10.6 1954UFa (68571)1144  
\*\*\*\*\*

C10H7NO2 HL CAS 14510-06-6 (4715)  
2-Formyl-8-hydroxyquinoline;

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

Mg++ gl diox/w 25°C 50% U K1=3.45 1972HUb (68608)1145  
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

Mg++ gl diox/w 30°C 75% U K1=5.62 B2=9.97 1957CFa (68639)1146

Mg++ gl diox/w 30°C 75% U K1=5.80 B2=9.60 1954UFa (68640)1147

\*\*\*\*\*

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

Mg++ gl oth/un 25°C 0.0 U K1=1.37 B2=2.55 1955LUa (68698)1148

\*\*\*\*\*

C10H7NO2 HL CAS 86-59-9 (873)  
Quinoline-8-carboxylic acid;

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

Mg++ gl oth/un 25°C 0.0 U K1=1.24 B2=3.73 1955LUa (68754)1149

\*\*\*\*\*

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

Mg++ gl oth/un ? 0.0 U B2=7.52 1951UFa (69133)1150

\*\*\*\*\*

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

Mg++ cal KCl 25°C 0.25M U H K1=0.30 1997MKb (69519)1151  
DH(K1)=-6.1 kJ mol<sup>-1</sup>; DS=-15 J K<sup>-1</sup> mol<sup>-1</sup>

-----  
Mg++ gl oth/un 25°C 0.20M U TIH K1=0.47 1993DGa (69520)1152  
DH(K1)=8 kJ mol<sup>-1</sup>, DS(K1)=36 J K<sup>-1</sup> mol<sup>-1</sup>. Data for 5-45 C, 0.20-  
0.75 M MgCl<sub>2</sub>  
-----

Mg++ sp alc/w 25°C 95% U K1=2.20 1993GSa (69521)1153  
Medium: 95% w/w EtOH/H<sub>2</sub>O, 0.05 M Et<sub>4</sub>NClO<sub>4</sub>, by competitive spectrophotometry  
-----

Mg++ sp non-aq 25°C 100% U I K1=2.80 B2=5.04 1992GSa (69522)1154  
Medium: MeCN. In acetone:K1=2.04, K2=1.02; in MeOH:K1=1.90.By fluorimetry  
-----

Mg++ gl KCl 25°C 0.25M U T H K1=0.32 1985CRa (69523)1155  
K1=0.38(10 C);K1=0.26(40 C).  
DH=-6.3 kJ mol<sup>-1</sup>, DS=-17 J mol<sup>-1</sup> K<sup>-1</sup>  
-----

Mg++ sp non-aq 25°C 100% U I K1=-0.39 1985MKb (69524)1156  
Medium: DMSO. In DMF: K1=-0.26; MeCN: 4.8; MeOH: 0.93  
-----

Mg++ sp NaClO<sub>4</sub> 25°C 0.20M U I K1=0.673 1983EBa (69525)1157  
-----

Mg++ sp oth/un 25°C 0.50M U K1=0.5 1955SKa (69526)1158  
\*\*\*\*\*  
C<sub>10</sub>H<sub>8</sub>O<sub>4</sub> H<sub>2</sub>L CAS 38489-70-2 (3297)  
Benzoylpyruvic acid; C<sub>6</sub>H<sub>5</sub>.CO.CH<sub>2</sub>.CO.COOH  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	diox/w	30°C	75%	U		K1=12.0 B2=17.0	1954UFa (69796)	1159
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\*\*\*\*\*  
C<sub>10</sub>H<sub>8</sub>O<sub>5</sub>S H<sub>3</sub>L DHNSA (877)  
2,3-Dihydroxynaphthalene-6-sulfonic acid;  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	NaNO <sub>3</sub>	25°C	0.10M	U		K1=7.32 B2=11.53	1984NHa (69833)	1160
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\*\*\*\*\*  
C<sub>10</sub>H<sub>9</sub>NO HL 8-OH-Quinaldine CAS 826-81-3 (998)  
2-Methyl-8-hydroxyquinoline;  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	sp	KCl	30°C	1.0M	M		K1=3.09	1996BTa (70039)	1161
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Mg++	dis	R <sub>4</sub> N.X	20°C	1.0M	U		K1=1.98 B2=5.03	1969SRc (70040)	1162
------	-----	--------------------	------	------	---	--	-----------------	-----------------	------

Medium: 1 M NH<sub>4</sub>Cl, HCl  
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Mg++	gl	diox/w	20°C	50%	U		K1=3.73 B2=6.86	1954IRa (70041)	1163
------	----	--------	------	-----	---	--	-----------------	-----------------	------

Medium: 50% dioxan, 0.3 M NaClO<sub>4</sub>  
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Mg++	gl	diox/w	25°C	50%	U		K1=5.24 B2=9.64	1954JFa (70042)	1164
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C10H9NO HL CAS 5541-67-3 (999)  
5-Methyl-8-hydroxyquinoline;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ gl diox/w 20°C 50% U K1=5.21 B2=9.68 1954IRa (70062)1165  
Medium: 50% dioxan, 0.3 M NaClO4

\*\*\*\*\*

C10H9NO HL CAS 5541-68-4 (1000)  
7-Methyl-8-hydroxyquinoline;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ gl diox/w 20°C 50% U K1=4.64 B2=8.76 1954IRa (70075)1166  
Medium: 50% dioxan, 0.3 M NaClO4

\*\*\*\*\*

C10H9NO HL CAS 3846-73-9 (3320)  
8-Hydroxy-4-methylquinoline;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ gl diox/w 25°C 50% U K1=6.45 B2=11.91 1954JFa (70094)1167  
\*\*\*\*\*

C10H9NO HL CAS 20984-33-2 (3321)  
8-Hydroxy-6-methylquinoline;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ gl diox/w 20°C 50% U K1=5.09 B2=9.40 1954IRa (70100)1168  
Medium: 50% dioxan, 0.3 M NaClO4

\*\*\*\*\*

C10H9NO2 HL CAS 57334-35-7 (3905)  
2-Hydroxymethyl-8-hydroxyquinoline;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ sp KCl 30°C 1.0M M K1=2.52 1996BTa (70117)1169  
-----  
Mg++ gl diox/w 25°C 50% U K1=3.99 B2=8.08 1967SFa (70118)1170  
\*\*\*\*\*

C10H9NO8 H2L CAS 83785-11-9 (685)  
2-Nitro-1,4-di(carboxymethoxy)benzene; O2N.C6H3.(OCH2COOH)2

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ gl oth/un 30°C ? U K1=3.42 1985TZa (70233)1171  
\*\*\*\*\*

C10H9O2Br HL CAS 4023-81-8 (1182)  
4-Bromo-1-phenyl-1,3-butanedione; Br.C6H4.CO.CH2.CO.CH3

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  diox/w 20°C  75%  M T      K1=9.13  B2=15.25  1980GMd (70433)1172
*****
C10H10N2O          HL                      CAS 37920-81-3  (3323)
8-Hydroxy-2,4-dimethylquinazoline;
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  diox/w 20°C  50%  U      K1=3.81  B2=6.90  1954IRa (70539)1173
Medium: 50% dioxan, 0.3 M NaClO4
*****
C10H10N2O3S        H2L                      CAS 76045-30-2  (7218)
Desferri ferrithiocin,
2-(3-Hydroxypyridin-2-yl)-4-methyl-4,5-dihydrothiazole-4-carboxylic acid;
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  KNO3   25°C  0.10M C      K1=5.10  B2= 9.16  1990ARa (70557)1174
*****
C10H10O2           HL  Benzoylacetone  CAS 93-91-4  (197)
1-Phenylbutane-1,3-dione; C6H5.CO.CH2.CO.CH3
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  diox/w 20°C  17%  C      K1=7.60  B2=14.16  1976JWa (70703)1175
-----
Mg++       gl  diox/w 30°C  75%  U      K1=7.84  B2=14.04  1959MFa (70704)1176
-----
Mg++       gl  diox/w 30°C  75%  U      K1=7.69  B2=14.09  1953UFa (70705)1177
*****
C10H10O3           HL                      CAS 16636-62-7  (3298)
2-Hydroxybenzoylacetone; HO.C6H4.CO.CH2.CO.CH3
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  diox/w 30°C  75%  U      K1=7.18  B2=13.23  1955H0a (70798)1178
*****
C10H10O6           H2L                      CAS 5411-14-3  (2394)
1,2-Phenylenedioxodiethanoic acid; C6H4(O.CH2.COOH)2
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  NaClO4 25°C  0.10M U      K1=<1.5      1968SMb (70844)1179
*****
C10H11NO4          H2L                      CAS 1137-73-1  (2567)
N-Phenyliminodiethanoic acid; C6H5.N(CH2.COOH)2
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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-----  
Mg++ cal KNO3 25°C 0.1M C H 1991ANa (70997)1180  
DH(K1)=5.9 kJ mol-1  
-----

Mg++ cal KNO3 25°C 0.10M U K1=1.15 1991Aa (70998)1181  
DH(K1)=5.86 kJ mol-1, DS(K1)=41.84 J K-1 mol-1  
-----

Mg++ gl KCl 20°C 0.10M U K1=1.15 1955SAa (70999)1182  
\*\*\*\*\*  
C10H11N04S H3L (3928)  
N-(2'-Mercaptophenyl)iminodiethanoic acid; HS.C6H4.N(CH2.COOH)2  
-----

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

Mg++ gl KNO3 20°C 0.10M U K1=1.84 ? 1963IFb (71021)1183  
\*\*\*\*\*  
C10H11N05 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  
-----

Mg++ gl KNO3 20°C 0.10M U K1=6.86 1963IFb (71036)1184  
K(Mg+HL)=2.67  
\*\*\*\*\*  
C10H11N05S H2L (3929)  
N-(2-Thenoylmethyl)iminodiethanoic acid; C4H3S.CO.CH2.N(CH2.COOH)2  
-----

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

Mg++ gl KNO3 25°C 0.10M U K1=2.80 1965AUa (71061)1185  
\*\*\*\*\*  
C10H11N07S H3L (3335)  
N-(2-Sulfophenyl)iminodiethanoic acid; H03S.C6H4.N(CH2.COOH)2  
-----

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

Mg++ EMF KCl 20°C 0.10M C K1=2.68 1947SWa (71065)1186  
\*\*\*\*\*  
C10H11N07S H3L (3336)  
N-(3-Sulfophenyl)iminodiethanoic acid; H03S.C6H4.N(CH2.COOH)2  
-----

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

Mg++ EMF KCl 20°C 0.10M C K1=1.26 1947SWa (71072)1187  
Method: H electrode  
\*\*\*\*\*  
C10H11N07S H3L (3337)  
N-(4-Sulfophenyl)iminodiethanoic acid; H03S.C6H4.N(CH2.COOH)2  
-----

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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-----  
Mg++ EMF KCl 20°C 0.10M C K1=1.15 1947SWa (71075)1188  
Method: H electrode

\*\*\*\*\*

C10H12N2O2 HL CAS 89314-29-4 (8507)  
2-[(4-Methylphenyl)hydrazono]-propanoic acid;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ gl alc/w 30°C 40% M M K1=4.04 B2= 6.69 1995RRe (71192)1189  
K(MgL+A)=5.00  
K(MgL+en)=6.65  
K(MgL+pro)=4.55  
K(MgL+B)=2.90

Medium: 40% v/v EtOH/H2O, 0.10 M KNO3. K(MgL+ala)=2.50, K(MgL+gly)=2.35.  
H2A is catechol, HB is hydroxyproline.

-----  
Mg++ gl alc/w 30°C 40% M M 1995RRe (71193)1190  
K(Mg(phe)+L)=3.00  
K(MgA+L)=2.05

Medium: 40% v/v EtOH/H2O, 0.10 M KNO3. H2A is salicylic acid.

\*\*\*\*\*

C10H12N2O4 H2L CAS 16598-05-3 (967)  
2-Pyridylmethyliminodiethanoic acid; C5H4N.CH2.N(CH2.COOH)2

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ gl NaNO3 20°C 0.10M C H K1=3.98 1981ANb (71247)1191  
DH1=15.9 kJ mol-1 DS1=130.1 J K-1 mol-1

-----  
Mg++ gl KNO3 20°C 0.10M U K1=3.90 1963IFc (71248)1192

\*\*\*\*\*

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  
-----  
Mg++ gl KNO3 25°C 0.10M U M 1990RRa (71477)1193  
K(Mg(His)+H+L)=2.56  
B(MgH2L(histamine))=7.14  
B(MgH2L(catechol))=7.06  
K(Mg(Gly)+H+L)=2.39

-----  
Mg++ gl NaNO3 25°C 0.10M C 1989KTa (71478)1194  
K(Mg+H-1L) < 0.6

-----  
Mg++ gl KNO3 35°C 0.10M C M 1985RRh (71479)1195  
K(Mg+HL)=2.23  
K(Mg(gly)+HL)=2.5  
K(Mg(his)+HL)=2.79

K(Mg+HL+HA)=7.27  
K(Mg+HL+B)=8.30. H2A is catechol, H2B is oxalic acid.

---

Mg++	gl	KNO3	35°C	0.10M	U	M	1983RRb (71480)	1196
------	----	------	------	-------	---	---	-----------------	------

K(Mg+HL)=2.23  
K(Mg+2HL)=5.07  
K(MgGly+H2L=MgHLGly+H)=2.5

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Mg++	gl	KNO3	25°C	0.10M	U	T H	1983RRc (71481)	1197
------	----	------	------	-------	---	-----	-----------------	------

K(Mg+2HL)=5.00  
DH=-7.9kJ mol<sup>-1</sup>. At 5 C: K=5.60; 35 C: 5.07; 45 C: 5.47

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Mg++	gl	KNO3	45°C	0.10M	U	M	1979RRb (71482)	1198
------	----	------	------	-------	---	---	-----------------	------

K(Mg+HL+TetraMeen)=5.26  
K(Mg+HL+Sulphosalicylate)=1.95

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Mg++	gl	KNO3	45°C	0.10M	U	M	1979RRb (71483)	1199
------	----	------	------	-------	---	---	-----------------	------

K(Mg+HL+bpy)=6.56

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Mg++	gl	KNO3	25°C	0.10M	U	T	1978RRa (71484)	1200
------	----	------	------	-------	---	---	-----------------	------

K(Mg+HL)=2.22

\*\*\*\*\*  
C10H12N4O6 HL CAS 40281-74-1 (3910)  
Purin-6-one 9-ribose N(1)-oxide (Inosine N(1)-oxide)

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	sp	NaClO4	25°C	0.10M	U		K1=1.7	1965SIa (71508)	1201
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C10H12O2 HL CAS 7624-24-2 (4702)  
2-Hydroxy-4-methylpropiophenone; HO.C6H3(CH3).CO.CH2.CH3

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	diox/w	30°C	75%	U		K1=5.51	1970KDa (71526)	1202
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Medium: 75% dioxan, 0.1 M NaClO4

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

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	diox/w	30°C	50%	U		K1=6.2 B2=11.4	1954BFb (71569)	1203
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Mg++	gl	diox/w	30°C	50%	U		K1=6.2 B2=11.0 B3=14.0	1954BFb (71570)	1204
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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
Mg++	gl	diox/w	30°C	75%	U		K1=8.44	1970KDa (71663)	1205
Medium: 75% dioxan, 0.1 M NaClO4									
*****									
C10H13N2O11P		H3L					Orotidylic acid CAS 68244-58-6 (6665)		
Orotidine-5'-monophosphoric acid, uridine-5-carboxylic acid-5-monophosphoric acid;									
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	0.10M	M		K1=1.93 K(MgH-1L+H)=8.89	1991BSc (71790)	1206
-----									
Mg++	gl	NaNO3	25°C	0.10M	M	I		1991BSd (71791)	1207
							K(Mg+HL)=1.93 K(MgL+H)=8.89		
In 30% v/v dioxan/H2O: K(Mg+HL)=2.57, K(MgL+H)=9.32.									
In 50% v/v dioxan/H2O: K1=2.96, K(MgL+H)=9.54									
*****									
C10H13N3O7		H3L					(3912)		
1,3-Dimethyluramil-N,N-diethanoic acid;									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	20°C	0.10M	U		K1=8.29 B2=12.07	1963IFb (71802)	1208
*****									
C10H13N4O8P		H3L					IMP CAS 131-99-7 (843)		
Inosine-5'-monophosphoric acid;									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	C	M	K1=1.69	2001AAa (71854)	1209
Also data for ternary complexes with MOPSO, TAPSO and ACES.									
-----									
Mg++	gl	R4N.X	25°C	0.1M	U	H	K1=1.68 K(Mg+HL)=<0	1998HTa (71855)	1210
Medium: 0.10 M Me4NBr. By calorimetry: DH(K1)=6.6 kJ mol-1, DS=1 J K-1 mol-1.									
-----									
Mg++	gl	NaNO3	25°C	0.10M	M			1994SMb (71856)	1211
							K(Mg+HL)=1.67 *K(MgHL)=-8.65		
*****									
C10H13N4O9P		H3L					(3930)		
Inosine-5'-monophosphoric acid N(1)-oxide;									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	NaClO4	25°C	0.10M	U			1965SIa (71883)	1212
							K(Mg+HL)=2.1		

\*\*\*\*\*

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  
-----

Mg++ nmr non-aq 21°C 100% U K1=0.50 1973SFa (71940)1213  
Medium: (CH3)2SO

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C10H13N5O5 HL Guanosine CAS 118-00-3 (1402)  
2-Aminopurin-6-one-9-riboside;

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

Mg++ gl KNO3 25°C 0.10M C T HM 1988KR a (72005)1214  
K(Mg+HL)=2.31  
K(MgHL+HL)=3.71

Also data at 15, 35 and 45 C. DH(MgHL)=+17; DS=101. DH(MgH2L2)=+14.7; DS=120  
Also ternary complexes with bpy, phen and 5-sulfosalicylic acid

-----  
Mg++ nmr non-aq 21°C 100% U 1973SFa (72006)1215  
K(Mg+HL)=1.63

Medium: (CH3)2SO

-----  
Mg++ gl oth/un 20°C 0.01M U K1=3.0 1953ALa (72007)1216

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C10H14N4O11P2 H4L IDP CAS 86-04-2 (3932)  
Inosine-5'-diphosphoric acid;

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

Mg++ sp oth/un ? 0.05M U K1=3.76 1961HBa (72136)1217  
K(Mg+HL)=2.38(?)

Medium: Me4NCl. K1 by glass electrode

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C10H14N5O6PS H2L AMPS CAS 19341-57-2 (8152)  
Adenosine-5'-monothiophosphoric acid, 5-Thioadenylic acid;

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

Mg++ gl NaNO3 25°C 0.10M M K1=1.28 1997SSg (72150)1218

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Mg++ gl KNO3 25°C 0.10M U K1=1.28 1995SSe (72151)1219

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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  
-----

Mg++ gl R4N.X 25°C 0.10M C R K1=1.98 1991SMa (72180)1220

## IUPAC evaluation

Mg++	gl	NaNO3	25°C	0.10M	C	K1=1.53 K1(open)=1.51	1989MSf (72181)1221
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Mg++	gl	KNO3	15°C	0.10M	U	K1=1.75	1972FSa (72182)1222
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Mg++	gl	KNO3	40°C	0.10M	U T H	K1=2.05	1967TMf (72183)1223
------	----	------	------	-------	-------	---------	---------------------

K1=1.71(0.4 C),1.82(12 C),1.93(25 C). At 25 C: DH(K1)=14.6 kJ mol<sup>-1</sup>, DS=86

\*\*\*\*\*  
 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
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Mg++	gl	R4N.X	25°C	0.10M	C	T	K1=1.94	1991SMa (72231)1224
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IUPAC evaluation

Mg++	gl	NaNO3	25°C	0.10M	U		K1=1.49	1989MSf (72232)1225
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Mg++	gl	KNO3	40°C	0.10M	U T H		K1=2.01	1967TMf (72233)1226
------	----	------	------	-------	-------	--	---------	---------------------

K1=1.68(0.4 C),1.78(12 C),1.86(25 C). At 25 C: DH(K1)=14.6 J K<sup>-1</sup> mol<sup>-1</sup>,DS=86

Mg++	gl	KNO3	25°C	0.10M	U		K1=1.89	1962TMa (72234)1227
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Mg++	gl	KCl	25°C	0.10M	U		K1=1.73	1958WSa (72235)1228
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C10H14N5O7P                      H2L      AMP-5                      CAS 18422-05-4 (842)  
 Adenosine-5'-monophosphoric acid, 5-Adenylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	NaNO3	25°C	0.10M	M		K1=1.62 K(MgL+H)=4.6 K(Mg+HL)=0.0	2003BSa (72416)1229
------	----	-------	------	-------	---	--	-----------------------------------------	---------------------

Mg++	gl	KNO3	25°C	0.10M	C	M	K1=1.97 K(MgL+A)=1.31 B(MgL A)=3.28 K(MgL+B)=2.90 B(MgL B)=4.87	2001A0a (72417)1230
------	----	------	------	-------	---	---	-----------------------------------------------------------------------------	---------------------

K(MgL+C)=4.01, B(MgL C)=5.98. HA=MOPS, HB=POPSO and HC=HEPPSO.

Mg++	gl	KNO3	25°C	0.10M	C	M	K1=1.97 K(MgL+A)=4.40 B(MgL A)=6.37 K(MgL+B)=3.81 B(MgL B)=5.78	2000ADa (72418)1231
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HA=ACES, HB=MOPSO. Also data for CHES, TAPSO and DIPSO.

Mg++ gl R4N.X 25°C 0.1M U H K1=1.61 B2= 3.45 1998HTa (72419)1232

K(Mg+HL)=<0

Medium: 0.10 M Me4NBr. DH(K1)=11.1 kJ mol<sup>-1</sup>, DS=68 J K<sup>-1</sup> mol<sup>-1</sup>.

DH(K2)=-10.2, DS=1.

Mg++ gl NaNO3 25°C 0.10M M K1=1.62 1996SSd (72420)1233

Mg++ nmr oth/un 25°C ? U K1=1.26 1991COa (72421)1234

Mg++ gl R4N.X 25°C 0.10M C TIH R K1=2.02 1991SMa (72422)1235  
IUPAC evaluation. DH(K1)=7.5 kJ mol<sup>-1</sup> (tentative). 37 C, I=0.15 M: K1=1.92

Mg++ gl NaNO3 25°C 0.10M U K1=1.60 1989MSf (72423)1236

Mg++ gl KNO3 25°C 0.10M U M K1=2.36 1988MBa (72424)1237

Mg++ gl NaNO3 25°C 0.10M C K1=1.60 1988SMb (72425)1238

Mg++ gl NaClO4 25°C 0.10M C H K1=2.10 1987SCa (72426)1239  
DH(K1)=5.71 kJ mol<sup>-1</sup>, DS=59 J K<sup>-1</sup> mol<sup>-1</sup>

Mg++ gl KCl 25°C 0.20M U K1=67.4 1979TPb (72427)1240

Mg++ ISE oth/un 25°C 0.0 C K1=2.57 1976KRb (72428)1241  
Method: Ca ion selective electrode. Self medium, pH 9.1.

Mg++ gl KNO3 15°C 0.10M U K1=1.80 1972FSa (72429)1242

Mg++ cal R4N.X 30°C 0.20M U K1=1.81 1969BSc (72430)1243  
Medium: Me4N4Cl, pH=8.5

Mg++ gl KNO3 40°C 0.10M U T H K1=2.09 1967TMf (72431)1244  
K1=1.75(0.4 C),1.85(12 C),1.97(25 C). At 25 C: DH(K1)=14.2 kJ mol<sup>-1</sup>, DS=85 J

Mg++ gl NaClO4 25°C 0.10M U K1=1.63 1964SBa (72432)1245

Mg++ gl KNO3 25°C 0.10M U K1=1.97 1962TMa (72433)1246

Mg++ ix NaCl 23°C 0.10M U K1=1.95 1958WAa (72434)1247

Mg++ gl KCl 25°C 0.10M U K1=2.14 1958WSa (72435)1248

Mg++ ix oth/un 23°C 0.10M U K1=2.0 1957NAC (72436)1249

Mg++ gl KCl 20°C 0.10M U K1=1.69 1956MSa (72437)1250

Mg++ gl R4N.X 25°C 0.20M U K1=1.69 1956SAa (72438)1251  
Medium: 0.2 M n-Pr4NCl

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C10H14N5O7P

H2L

dGMP

CAS 902-04-5 (5781)

Deoxyguanosine-5'-monophosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	0.10M	U		K1=1.81	1998SSc (72513)	1252
*****									
		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
Mg++	gl	NaClO4	25°C	0.10M	U			1964SBa (72521)	1253
							K(Mg+HL)=1.62		
							K(MgL+H) > 10.39		

By spectrophotometry: K1 < 3.72

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C10H14N5O8P	H3L	GMP-5					CAS 85-32-5	(2947)	
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Guanosine-5'-monophosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	C	M	K1=1.73	2001AAa (72580)	1254

Also data for ternary complexes with MOPSO, TAPSO and ACES.

Mg++	gl	R4N.X	25°C	0.1M	U	H	K1=1.71	1998HTa (72581)	1255
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K(Mg+HL)=<0

Medium: 0.10 M Me4NBr. By calorimetry: DH(K1)=5.3 kJ mol<sup>-1</sup>, DS=-4 J K<sup>-1</sup> mol<sup>-1</sup>.

Mg++	gl	NaNO3	25°C	0.10M	M			1994SMb (72582)	1256
------	----	-------	------	-------	---	--	--	-----------------	------

K(Mg+HL)=1.70

\*K(MgHL)=-9.02

Mg++	gl	R4N.X	25°C	0.10M	C	R		1991SMa (72583)	1257
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K(Mg+HL)=1.99

IUPAC evaluation

Mg++	cal	R4N.X	30°C	0.20M	U			1973SBb (72584)	1258
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K(Mg+HL)=1.76

Medium: Me4NI, pH=8.5

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C10H15NO6	H3L						(3915)		
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N-(1'-Carboxycyclopentyl)iminodiethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	20°C	0.10M	U		K1=6.75	1966IMa (72668)	1259
*****									
		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
Mg++	gl	R4N.X	25°C	0.10M	C	TI	R	K(Mg+HL)=1.96	1991SMa (72696)	1260
IUPAC evaluation										
Mg++	gl	NaNO3	25°C	0.10M	C			K(Mg+HL)=1.55	1988MSa (72697)	1261
*****										
C10H15N4O14P3 H5L ITP CAS 35908-31-7 (2148)										
Inosine 5'-triphosphoric acid;										
-----										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	0.10M	C			K(Mg+HL)=4.29 K(MgHL+H)=4.6 K(Mg+H2L)=2.4	2001SBc (72756)	1262
For pyrimidine nucleoside 5'-triphosphoric acid, K1=4.21, K(Mg+HL)=2.3, K(MgL+H)=4.6										
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Mg++	gl	R4N.X	25°C	0.10M	C		T	K(Mg+HL)=4.44 K(Mg+H2L)=2.34	1991SMa (72757)	1263
IUPAC evaluation										
-----										
Mg++	gl	NaClO4	25°C	0.10M	C			K(Mg+HL)=4.08	1977SIc (72758)	1264
-----										
Mg++	cal	R4N.X	30°C	0.20M	U	I		K1=4.07 K(Mg+HL)=3.93 K(Mg+H2L)=2.26	1973SBb (72759)	1265
Medium: Me4NCl, pH=8.5. In 0.2 M Me4NBr K(Mg+HL)=3.93										
-----										
Mg++	gl	KN03	25°C	0.10M	U	T		K(Mg+HL)=3.76	1973TRb (72760)	1266
K(35 C)=4.08, K(45 C)=3.84										
-----										
Mg++	sp	R4N.X	?	0.05M	U			K(Mg+HL)=4.08 K(Mg+H2L)=2.42 (?)	1961HBa (72761)	1267
Medium: Me4NCl. K1 by glass electrode										
-----										
Mg++	ix	NaCl	23°C	0.10M	U			K(Mg+HL)=4.04	1958WAa (72762)	1268
*****										
C10H15N5O9P2S H3L CAS 59286-20-3 (8421)										
Adenosine-5'-(1-thiodiphosphoric acid);										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	nmr	KNO3	30°C	0.10M	C		K1=3.66 K(Mg+HL)=2.16 *K(MgL)=-5.27	1984PHc (72830)	1269

Method: 31P nmr.

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C10H15N5O10P2                      H3L      ADP                      CAS 20398-34-9    (2181)  
Adenosine-5'-diphosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	0.10M	M		K1=3.36 K(MgL+H)=4.72 K(Mg+HL)=1.68	2003BSa (72944)	1270

Mg++	gl	KNO3	25°C	0.10M	C	M	K1=3.17 K(MgL+A)=2.38 B(MgLA)=5.55 K(MgL+B)=2.89 B(MgL B)=6.06	2001A0a (72945)	1271
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K(MgL+C)=2.84, B(MgLC)=6.01, K(MgL+D)=4.83, B(MgLD)=8.00, K(MgL+E)=3.00, B(MgLE)=6.17. HA=PIPES, HB=MOPS, HC=POPSO, HD=HEPPSO and HE=AMPSO.

Mg++	gl	KNO3	25°C	0.10M	C	M	K1=3.17 K(MgL+A)=6.60 B(MgLA)=9.77 K(MgL+B)=4.12 B(MgL B)=7.29	2000ADa (72946)	1272
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K(MgL+C)=3.80, B(MgLC)=6.97, K(MgL+D)=3.39, B(MgLD)=6.56, K(MgL+E)=3.40, B(MgLE)=6.57. HA=ACES, HB=MOPSO, HC=CHES, HD=TAPSO, HE=DIPSO.

Mg++	gl	NaNO3	25°C	0.10M	C	M	K1=3.24 K(MgL+A)=3.43 B(MgLA)=6.67	2000KHa (72947)	1273
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H2A=salicylhydroxamic acid.

Mg++	gl	KNO3	25°C	0.10M	U		K1=3.38	1995SBa (72948)	1274
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Mg++	cal	none	75°C	0	M T H		K1=4.89 K(MgL+Mg)=2.10 K(2MgL=Mg2L2)=0.79	1995W0a (72949)	1275
------	-----	------	------	---	-------	--	-------------------------------------------------	-----------------	------

DH(K1)=34.9 kJ mol<sup>-1</sup>, DS=194 J K<sup>-1</sup> mol<sup>-1</sup>; DH(MgL+Mg)=18.3, DS=93; DH(dim)=-0.4, DS=14. At 100 C: K1=5.29, K(MgL+Mg)=2.29, DH(K1)=44.5, DS=221

Mg++	nmr	oth/un	25°C	?	U		K1=3.34 K(Mg+HL)=1.11	1991C0a (72950)	1276
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Mg++	gl	R4N.X	25°C	0.10M	C	TIH	R K1=3.43 K(Mg+HL)=1.61	1991SMa (72951)	1277
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K(Mg+MgL)=1.0  
IUPAC evaluation. 37 C, 0.15 NaCl: K1=3.22, K(Mg+HL)=1.57. DH(K1)=13.4 kJ m<sup>-1</sup>

$K_1=4.00(I=0.07), 3.76(I=0.1)$ .  $I=0,25$  C,  $\Delta H(K_1)=18.0 \text{ kJ mol}^{-1}$ ,  $\Delta S=142 \text{ J K}^{-1} \text{ mol}^{-1}$

Mg++ ix R4N.X 25°C var U IH 1966PGa (72965)1291  
 Medium: Bu4NBr. DH(Mg+HL)=4 kJ mol<sup>-1</sup>, DS=60. DH(MgL+H)=-8, DS=75. K(Mg+HL)=  
 2.45-2.03sqrtI+3.34I-2.04sqrtI/(1+6.02sqrtI). K(MgL+H)=5.38-0.51sqrtI+0.82I

Mg++ sp oth/un 30°C 0.10M U K1=3.6 19640Pa (72966)1292  
 Medium: 0.1 M buffer N-ethylmorpholine+HCl

Mg++ sp oth/un 25°C 0.0 U H K1=4.10 1963GPb (72967)1293  
 DH(K1)=24.3 kJ mol<sup>-1</sup>, DS=159 J K<sup>-1</sup> mol<sup>-1</sup>

Mg++ gl KNO3 25°C 0.10M U K1=3.17 1962TMa (72968)1294  
 K(Mg+HL)=1.64

Mg++ sp R4N.X ? 0.05M U K2=3.34 1961HBa (72969)1295  
 K(Mg+HL)=1.5(?)  
 Medium: Me4NCl. K1 by glass electrode

Mg++ sp R4N.X 25°C 0.10M U TI K1=3.34 1959BUa (72970)1296  
 Medium: 0.1 M Bu3EtNBr. K1=3.48(35 C), 3.84(64 C). At I=0.22 M, 25 C: K1=3.23

Mg++ ix NaCl 23°C 0.10M U K1=3.15 1958WAa (72971)1297

Mg++ gl KCl 25°C 0.10M U K1=3.23 1958WSa (72972)1298  
 K(Mg+HL)=1.58

Mg++ ix oth/un 23°C 0.10M U K1=3.04 1957NAC (72973)1299

Mg++ gl KCl 20°C 0.10M U K1=3.11 1956MSa (72974)1300  
 K(Mg+HL)=1.5  
 K(MgL+H)=4.7

Mg++ gl R4N.X 25°C 0.20M U K1=3.01 1956SAa (72975)1301  
 K(Mg+HL)=1.45

Medium: 0.2 M n-Pr4NCl

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C10H15N5O11P2 H4L GDP CAS 146-91-8 (4792)  
 Guanosine-5'-diphosphoric acid;

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

Mg++ cal R4N.X 30°C 0.20M U 1973SBb (73022)1302  
 K(Mg+HL)=3.42

Medium: Me4NBr

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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

Mg++ nmr NaCl04 27°C 3.00M U K1=-1.0 1982SSb (73049)1303

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$$\Delta H(K1)=23.8 \text{ kJ mol}^{-1}, \Delta S=187.1 \text{ J K}^{-1} \text{ mol}^{-1}$$
$$\Delta H(K1)=23.76 \text{ kJ mol}^{-1}, \Delta S(K1)=194.6 \text{ J K}^{-1} \text{ mol}^{-1}$$

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By paper electrophoresis: K1=5.6

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In 1.0 mol/L  $\text{KNO}_3$   $K_1=13.60$ ;  $K(\text{Mg}+\text{HL})=6.77$ ;  $K(\text{MgL}+\text{H})=3.06$

In 0.5 mol/L  $\text{KNO}_3$   $K_1=13.63$ ;  $K(\text{Mg}+\text{HL})=4.74$ ;  $K(\text{MgL}+\text{H})=3.04$

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For15 C: K1=8.00, DH1=10.59; 35 C: K1=8.14, DH1=13.68

For15 C: K1=8.00, DH1=10.59; 35 C: K1=8.14, DH1=13.68

for 25 C and I=0.3 M  $K_1=8.15$ ; for 25 C and I=1.0 M  $K_1=7.87$

Mg++ cal KNO3 25°C 0.3M U TI K1=8.15 1975VBa (73553)1315  
DH(K1)=16.3 kJ mol<sup>-1</sup>

For 15 C DH1=18.04 kJ/mol;  
For 35 C DH1=14.9 kJ/mol

Mg++ oth KNO3 20°C 0.10M U K1=11 1965JMb (73554)1316  
Method: electrophoresis

Mg++ gl KNO3 20°C 0.10M U K1=8.69 1964ANa (73555)1317  
K(Mg+HL)=2.28

Mg++ cal KNO3 20°C 0.10M U H 1963ANf (73556)1318  
DH(K1)=14.6 kJ mol<sup>-1</sup>, DS=213 J K<sup>-1</sup> mol<sup>-1</sup>

Mg++ gl KNO3 25°C 0.10M U T H T K1=8.64 1960BMc (73557)1319  
K1=8.49(0.5 C), 8.57(13.4 C), 8.73(42.4 C); DH(K1)=8 kJ mol<sup>-1</sup>, DS=197

Mg++ cal none 25°C 0.0 U H K1=9.1 1957JAb (73558)1320  
DH(K1)=23.0 kJ mol<sup>-1</sup>, DS=251 J K<sup>-1</sup> mol<sup>-1</sup>

Mg++ ix none ? 0.0 U K1=9.72 1957KFa (73559)1321

Mg++ cal KNO3 20°C 0.10M U H 1956CSb (73560)1322  
DH(K1)=13.1 kJ mol<sup>-1</sup>, DS=211 J K<sup>-1</sup> mol<sup>-1</sup>

Mg++ EMF oth/un 25°C 0.0 U H 1956MAa (73561)1323  
Method: H electrode. DG(K1)=-51.9 kJ mol<sup>-1</sup>.

Mg++ EMF NaClO4 25°C 0.10M U K1=8.9 1956SRb (73562)1324

Mg++ cal oth/un 25°C 0.05M U H 1954CHa (73563)1325  
Medium: Mg(NO3)2. DH(K1)=12.9 kJ mol<sup>-1</sup>, DS=217 J K<sup>-1</sup> mol<sup>-1</sup>

Mg++ EMF KCl 20°C 0.10M U K1=8.69 1954SGa (73564)1326  
K(Mg+HL)=2.28

Method: H electrode

Mg++ EMF oth/un 20°C 0.0 U H T K1=9.12 1947SAa (73565)1327  
Method: H electrode. DH(K1)=-12.1 kJ mol<sup>-1</sup>

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C10H16N2O8 H4L CAS 63501-20-2 (2583)  
meso-2,3-Diaminobutane-N,N'-di(1,3-propanedioic acid)

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

Mg++ gl KNO3 25°C 0.10M U K1=5.09 1978SGc (74359)1328  
K(Mg+HL)=1.57  
K(Mg+MgL)=2.10

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C10H16N2O9                      H4L                      CAS 616-90-0 (2615)  
 Bis-(2-aminoethylether)-N,N'di(1,3-propanedioic acid); ((HOOCC)2CH.NH.CH2.CH2)2O

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	gl	KN03	25°C	0.10M	U			K1=3.24 K(Mg+HL)=1.96	1979KBd (74374)	1329
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 C10H16N2O11P2                      H4L                      CAS 491-97-4 (7674)  
 Thymidine-5'-diphosphoric acid;

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	gl	NaNO3	25°C	0.10M	M			K(Mg+HL)=3.34	1999SSa (74387)	1330
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 C10H16N5O12P3S                      H4L                      CAS 58976-48-0 (8420)  
 Adenosine-5'-(1-thiotriphosphoric acid);

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	nmr	KN03	30°C	0.10M	C			K1=4.47 K(Mg+HL)=2.94 *K(MgL)=-5.12	1984PHc (74400)	1331
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Method: 31P nmr. For adenosine-5'-(2-thiophosphoric acid), K1=4.04,  
 K(Mg+HL)=2.45, \*K(MgL)=-5.05.

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 C10H16N5O13P3                      H4L                      ATP                      CAS 56-65-5 (403)  
 Adenosine-5'-triphosphoric acid;

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	gl	KN03	25°C	0.10M	C	M		K1=3.99 K(MgL+A)=1.46 B(MgLA)=5.45 K(MgL+B)=3.05 B(MgLB)=7.04	2001A0a (74643)	1332
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K(MgL+C)=2.22, B(MgL C)=6.21. HA=POPSO, HB=HEPPSO and HC=AMPSO.

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Mg++	gl	KN03	25°C	0.10M	C	M		K1=3.99 K(MgL+A)=3.48 B(MgLA)=7.47 K(MgL+B)=3.82 B(MgLB)=7.81	2000ADa (74644)	1333
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K(MgL+C)=3.43, B(MgL C)=7.42. HA=ACES, HB=MOPSO, HC=CHES.  
 Also data for TAPSO and DIPSO.

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Mg++	gl	NaNO3	25°C	0.10M	C	M		K1=4.30 K(MgL+A)=3.49 B(MgLA)=7.79	2000KHa (74645)	1334
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H2A=salicylhydroxamic acid.

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Mg++ gl KCl 25°C 0.25M C T K1=4.48 1996IFa (74646)1335  
B(MgHL)=8.9

At 37 C: K1=4.61, B(MgHL)=9.0, B(MgH2L)=11.90, B(Mg2L)=6.21

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Mg++ nmr oth/un 25°C 0.02M C H 19960Ca (74647)1336  
Method: 25Mg nmr. Medium: 0.02 M Tris, pH 7.5. DH(K1)=15.9 kJ mol<sup>-1</sup>.

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Mg++ cal none 50°C 0 M T H K1=6.17 1995W0a (74648)1337  
K(MgL+Mg)=2.82  
K(2MgL=Mg2L2)=0.53

DH(K1)=31.6 kJ mol<sup>-1</sup>, DS=216 J K<sup>-1</sup> mol<sup>-1</sup>; DH(MgL+Mg)=26.2, DS=135; DH(dim)=  
=-5.5, DS=-7. At 100 C: K1=7.12, K(MgL+Mg)=3.50, K(dim)=0.41. Also at 125 C

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Mg++ nmr oth/un 25°C ? U K1=3.48 1991C0a (74649)1338  
K(Mg+HL)=0.78

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Mg++ gl R4N.X 25°C 0.10M C TIH R K1=4.55 1991SMa (74650)1339  
K(Mg+HL)=2.32  
K(Mg+MgL)=1.7

IUPAC evaluation. DH(K1)=18.8 kJ mol<sup>-1</sup>, DH(Mg+HL)=9.6  
37 C, 0.15 NaCl: K1=4.34, K(Mg+HL)=2.39

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Mg++ gl KCl 25°C 0.10M U M K1=3.60 1990DSb (74651)1340  
B(Mg(OH)L)=6.39  
K(Mg+HL)=1.62  
B(MgL(NTA))=8.84

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Mg++ cal NaCl 25°C 0.15M C H 1990MIa (74652)1341  
DH(K1)=-18.7 kJ mol<sup>-1</sup>, DS(K1)=-91J K<sup>-1</sup> mol<sup>-1</sup>. Medium: 0.15 M NaCl,  
0.015 M KCl, 0.003 M MgCl2, 0.02 M imidazole, pH 7.4

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Mg++ gl NaNO3 25°C 0.50M U TI K1=4.50 1988GDa (74653)1342  
B(MgHL)=9.08  
B(MgH2L)=12.72  
B(Mg2L)=5.53

At 25 C, I=0, K1=6.0, B(MgHL)=10.9, B(MgH2L)=14.6, B(Mg2L)=7.7. At 37 C,  
I=0.16 M, K1=4.6, B(MgHL)=9.1, B(MgH2L)=12.6, B(Mg2L)=5.7.

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Mg++ gl NaCl04 25°C 0.10M C H K1=4.03 1987SCa (74654)1343  
B(MgHL)=8.63

DH(K1)=18.08 kJ mol<sup>-1</sup>, DS=138 J K<sup>-1</sup> mol<sup>-1</sup>

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Mg++ gl NaNO3 25°C 0.10M C K1=4.29 1987STb (74655)1344  
K(Mg+HL)=2.42  
K(MgL+H)=4.60

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Mg++ gl NaCl04 25°C 0.10M U K1=4.365 1986CCc (74656)1345  
B(MgHL)=8.57



$$B(\text{MgH}_2\text{L}_2)=18.33$$

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Mg++      gl   oth/un   25°C   0.25M   U   H   K1=4.54   B2=6.0   1986RSa (74657)1346  
B(CoHL)=8.96

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Mg++      nmr   R4N.X   22°C   0.10M   U   K(Mg+H3L)=2.78   1985PHb (74658)1347  
K(Mg+H2L)=3.845

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Mg++      gl   KNO3   22°C   0.25M   U   K1=2.21   1984GKa (74659)1348

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Mg++      ix   NaCl   30°C   0.10M   C   K1=3.92   1984JMb (74660)1349  
Method: anion exchange. Medium: 0.10 M NaCl, 0.01 M Tris buffer, pH 8.2.

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Mg++      nmr   KNO3   30°C   0.10M   C   K1=4.70   1984PHc (74661)1350  
K(Mg+HL)=2.79  
\*K(MgL)=-4.72

Method: 31P nmr.

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Mg++      sp   oth/un   25°C   0.05M   C   K1=4.72   1981BKf (74662)1351  
K(MgL+Mg)=1.52

Method: by competition with 8-hydroxyquinoline.

Medium: 0.05 M Tris buffer, pH 7.5. K(MgL+Mg) determined by 31P nmr.

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Mg++      nmr   NaCl   25°C   0.15M   C   1981WPa (74663)1352  
K1eff=4.46 (pH=7.0)

Method: 31P nmr.

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Mg++      oth   oth/un   RT   dil   C   K1=3.90   1980KRb (74664)1353  
Method: effect of [Mg++] on ATP exchange activity. Medium: not stated.

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Mg++      kin   oth/un   25°C   0.02M   C   1980Mcd (74665)1354  
K1eff=4.81 (pH=8.85)

Method: spectrophotometry. Medium: 0.02 M (NH4)2SO4.

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Mg++      gl   R4N.X   70°C   0.20M   U   I   1980Rmb (74666)1355  
K(MgL+H)=5.36  
K(MgHL+H)=3.9  
Medium: Me4NCl. In 50% acetonitrile/H2O, K(MgL+H)=5.78

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Mg++      sp   oth/un   25°C   0.10M   C   1979MKb (74667)1356  
K1eff=4.49

Method: divalent cation selective electrode. Medium: 0.1 M triethanolamine /HCl buffer, pH 8.0.

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Mg++      gl   KNO3   35°C   0.10M   C   K1=4.50   1979MTb (74668)1357  
K(Mg+HL)=2.77

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Mg++      ISE   oth/un   25°C   0.01M   C   K1=5.15   1978AMd (74669)1358  
Method: divalent cation selective electrode. Medium: 0.01 M

Mg++	gl	NaClO4	25°C	0.10M	C	K1=4.24 B(Mg(phen)L)=6.10 K(Mg(phen)+L)=4.65 K(MgL+phen)=1.86	1978MSd (74670)1359
Mg++	gl	NaCl	25°C	0.12M	U M	K1=4.01 K(MgL+DOPA)=3.67	1978RMc (74671)1360
H3DOPA=3,4-dihydroxyphenylalanine							
Mg++	gl	R4N.X	20°C	0.10M	M	K1=4.72 K(Mg+HL)=2.72	1976PSe (74672)1361
Medium: 0.1 M Me4NClO4							
Mg++	kin	oth/un	20°C	0.00	U	K1=4.68	1973LJa (74673)1362
Medium: 0.001 M Tris HCl. tris buffer, pH=8.5							
Mg++	gl	R4N.X	39°C	0.20M	U T	K1=4.74	1973SRa (74674)1363
Medium: Me4NBr. K1(3 C)=4.34, K1(17 C)=4.53, K1(26 C)=4.62, K1(30 C)=4.66							
Mg++	oth	KNO3	15°C	0.10M	U	K(2Mg+HL)=1.77	1972FBa (74675)1364
Mg++	gl	KNO3	15°C	0.10M	U	K1=4.05 K(Mg+HL)=2.18	1972FSa (74676)1365
Mg++	sp	oth/un	25°C	0.02M	U	K1=4.50 K(Mg+HL)=1.7	1971HRa (74677)1366
Medium: 0.02 M MgCl2, 0.02 M H4L. Raman spectra							
Mg++	ix	KCl	25°C	0.10M	U	K1eff=3.65	1971YBa (74678)1367
pH=7.4. At pH 8.5: K1eff=4.17							
Mg++	sp	oth/un	37°C	0.06M	U I	K1=4.54	1970NOa (74679)1368
tris buffer. I=0.24 M: K1=3.54							
Mg++	cal	oth/un	30°C	0.20M	U	K1=4.69	1969BSc (74680)1369
pH=8.5							
Mg++	ix	R4N.X	25°C	0.17M	U TIH	K1=4.54	1966PGa (74681)1370
Medium: Bu4NBr. At 5 C: K1=4.46(I=0.07), 4.45(I=0.1), 4.38(I=0.17); 25 C: 4.60 (I=0.07), 4.63(I=0.1). At 25 C, I=0: DH(K1)=21.3 kJ mol-1, DS=184 J K-1 mol-1							
Mg++	ix	R4N.X	25°C	var	U IH		1966PGa (74682)1371
Medium: Bu4NBr. K(MgL+H)=5.44-1.52sqrtI+2.52I; DH=-5 kJ mol-1, DS=88 J K-1m-1 K(Mg+HL)=3.59-4.06srI+6.36I-2.04srI/(1+6.02srI); DH=8, DS=100							
Mg++	gl	KNO3	40°C	0.10M	U T H	K1=4.28	1966TMb (74683)1372

Mg++	gl	R4N.X	30°C	0.10M	U	I	K1=4.88 K(Mg+HL)=2.7	19640Pa	(74684)1373
Medium: Et4NBr. In 0.1 M N-ethylmorpholine buffer: K1=4.90									
Mg++	oth	oth/un	23°C	0.10M	U		K1=4.9	1962AMa	(74685)1374
Method: interferometer. Medium: (HOCH2)3CNH2									
Mg++	gl	KCl	20°C	0.10M	U		K1=3.84 K(Mg+HL)=2.09 K(Mg+H2L)=1.58	1962HBa	(74686)1375
Mg++	gl	KNO3	25°C	0.10M	U		K1=4.22 K(Mg+HL)=2.24	1962TMb	(74687)1376
Mg++	sp	R4N.X	?	0.50M	U		K1=3.90 K(Mg+HL)=2.23(?)	1961HBa	(74688)1377
Medium: Me4NCl. K1 by glass electrode									
Mg++	gl	R4N.X	25°C	0.10M	U		K1=4.43	1961NAa	(74689)1378
Medium: Et4NBr. By ion exchange: K1=4.37									
Mg++	gl	R4N.X	30°C	0.10M	U	I	K1=5.02 K(Mg+HL)=2.90	19610Pa	(74690)1379
Medium: Et4NBr. K1=4.30(0.1 M tris buffer), 4.89(triethanolamine buffer), 4.93(N-ethylmorpholine buffer)									
Mg++	sp	R4N.X	64°C	0.10M	U	TI	K1=4.99	1959BUa	(74691)1380
Medium: Bu3EtNBr. K1=4.58(25 C),4.74(37 C). At I=0.2: K1=4.35(25 C) In 0.1 M KCl: K1=4.25(25 C)									
Mg++	ix	NaCl	23°C	0.10M	U		K1=4.04	1958WAa	(74692)1381
Mg++	gl	KCl	25°C	0.10M	U		K1=4.04 K(Mg+HL)=2.16	1958WSa	(74693)1382
Mg++	ix	oth/un	23°C	0.10M	U	H	K1=3.61	1957NAC	(74694)1383
DH(K1)=17.2 kJ mol-1, DS=122 J K-1 mol-1									
Mg++	gl	KCl	20°C	0.10M	U		K1=4.00 K(Mg+HL)=2.00	1956MSa	(74695)1384
Mg++	gl	R4N.X	25°C	0.20M	U		K1=3.47 K(Mg+HL)=1.49	1956SAa	(74696)1385
Medium: 0.2 M n-Pr4NCl									

C10H16N5O14P3      H5L      GTP      CAS 86-01-1    (404)

Guanosine-5'-triphosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	0.10M	C			K(Mg+HL)=4.31 K(MgHL+H)=4.8 K(Mg+H2L)=2.6	2001SBc (74875)	1386
Mg++	gl	R4N.X	25°C	0.10M	C	T		K(Mg+HL)=4.49 K(Mg+H2L)=2.31	1991SMa (74876)	1387

IUPAC evaluation

Mg++	gl	NaClO4	25°C	0.10M	C			K(Mg+HL)=4.13	1977SIc (74877)	1388
Mg++	cal	R4N.X	30°C	0.20M	U	I	T	K1=4.11 K(Mg+HL)=3.93 K(Mg+H2L)=2.23	1973SBb (74878)	1389
Medium: Me4NCl. pH=8.5. In 0.2 M Me4NBr K(Mg+HL)=3.93. Also micro constants										
Mg++	gl	KNO3	25°C	0.10M	U	T		K(Mg+HL)=4.98	1973TRb (74879)	1390
K(35 C)=5.20, K(45 C)=5.03										

Mg++	ix	NaCl	23°C	0.10M	U			K(Mg+HL)=4.02	1958WAa (74880)	1391
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C10H17NO4 H2L CAS 2848-06-8 (3916)

N-(Cyclohexyl)iminodiethanoic acid; C6H11.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KNO3	20°C	0.10M	U			K1=3.46	1963IFb (74973)	1392

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C10H17NO5 H2L CAS 6243-06-7 (3326)

N-(2-Hydroxycyclohexyl)iminodiethanoic acid; HO.C6H10.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KCl	20°C	0.10M	U			K1=4.27	1955ASb (74985)	1393

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C10H17NO5 H2L (3917)

N-(Tetrahydropyran-2-ylmethyl)iminodiethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KNO3	20°C	0.10M	U			K1=3.70	1963IFa (74999)	1394

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C10H17N2O14P3                      H3L      TTP                      CAS 365-08-2    (402)  
 Thymidine-5'-triphosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	R4N.X	25°C	0.10M	C	T		K(Mg+HL)=4.50	1991SMa (75050)	1395
IUPAC evaluation										
Mg++	gl	NaNO3	25°C	0.10M	C			K(Mg+HL)=4.23	1987STb (75051)	1396
Mg++	gl	NaClO4	25°C	0.10M	C			K(Mg+HL)=4.18	1977SIc (75052)	1397

\*\*\*\*\*  
 C10H17N3O6S                      H3L      Glutathione                      CAS 70-18-8    (333)  
 Glutamyl-cysteinyl-glycine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	NaClO4	25°C	0.10M	U	TIH		K1=6.385	2001SGd (75112)	1398
Data for 0.05-0.2 M NaClO4 and 15-45 C. DH(K1)=-30.1 kJ mol-1, DS(K1)=-30 J K-1 mol-1. At I=0, K1=6.840. Also data for MeOH/H2O, EtOH/H2O, DMF/H2O.										

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 C10H17N5O16P4                      H7L                      CAS 228218-4-6    (8418)  
 Adenosine-3'-(diphosphoric acid)-5'-(diphosphoric acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	sp	oth/un	25°C	0.10M	C			K1eff=5.10	1979MKb (75154)	1399

Method: divalent cation selective electrode. Medium: 0.1 M triethanolamine /HCl buffer, pH 8.0.  
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C10H17N5O16P4                      H5L      AQP                      CAS 1062-98-2    (3341)  
 Adenosine-5'-tetraphosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KCl	20°C	0.10M	U			K1=4.22 K(Mg+HL)=2.7 K(MgL+H)=5.3	1957SAa (75157)	1400

\*\*\*\*\*  
 C10H17N6O12P3                      H4L                      CAS 4209-30-7    (4795)  
 Adenyl-5'-yl-imidodiphosphoric acid; adenosine-0.PO(OH).0.PO(OH).NH.PO(OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	R4N.X	20°C	0.10M	M	T H		K1=5.05 K(Mg+HL)=2.84	1976PSe (75169)	1401

Medium: 0.1 M Me4NC104. At 0 C: K1=5.26, K(Mg+HL)=2.91. DH(K1)=-16 kJ mol<sup>-1</sup>, DS=12 J K<sup>-1</sup> mol<sup>-1</sup>; DH(Mg+HL)=-5, DS=11

Mg++ ix KCl 25°C 0.10M U 1971YBa (75170)1402  
K1eff=4.58

pH=8.5

\*\*\*\*\*

C10H18N2O4 H2L CAS 124125-60-6 (914)  
1,5-Diazacyclooctane-N,N'-diethanoic acid;

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

Mg++ cal NaClO4 25°C 0.10M U H K1=4.0 1985EHa (75202)1403  
DH(K1)=6.1 kJ mol<sup>-1</sup>, DS=97.6 J K<sup>-1</sup> mol<sup>-1</sup>

\*\*\*\*\*

C10H18N2O5 H2L (5608)  
1-Oxa-4,7-diazacyclononane-N,N'-diethanoic acid;

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

Mg++ gl KNO3 25°C 0.10M U K1=3.68 1990CCa (75230)1404

Mg++ cal NaClO4 25°C 0.10M U H K1=5.2 1985EHa (75231)1405  
DH(K1)=23.8 kJ mol<sup>-1</sup>, DS=179.0 J K<sup>-1</sup> mol<sup>-1</sup>

\*\*\*\*\*

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

Mg++ gl NaClO4 30°C 0.10M U K1=6.41 1981MMc (75324)1406

Mg++ cal KNO3 25°C 0.10M U H 1965WHa (75325)1407  
DH(K1)=14.2 kJ mol<sup>-1</sup>, DS=180 J K<sup>-1</sup> mol<sup>-1</sup>

Mg++ EMF KNO3 25°C 0.10M U K1=7.0 1960HRa (75326)1408

Mg++ gl KCl 20°C 0.10M U K1=5.78 1959KRa (75327)1409  
K(Mg+HL)=1.43

Mg++ gl oth/un 25°C 0.10M U K1=5.2 1953KPb (75328)1410

\*\*\*\*\*

C10H18N4O6 H2L (4504)  
Hexanoic acid bis(3-hydroxycarbamoyl-methyl)amide; HONHCOCH2NHCO(CH2)4CONHCH2CONHOH

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

Mg++ gl KCl 25°C 0.20M C K1=3.46 1999FEa (75567)1411  
B(MgHL)=11.72  
B(MgH-1L)=-8.21

\*\*\*\*\*

C10H18N4O8                      H4L                      CAS 35048-92-5 (4751)  
Ethylenedinitrilo-N,N'-diacetohydroxamic-N,N'-diethanoic acid;

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

Mg++            gl    KNO3      25°C 0.10M U                      1971MMe (75582)1412

K(Mg+H2L)=3.29

K(MgL+H)=8.73

K(MgHL+H)=7.54

\*\*\*\*\*

C10H18N5O19P5                      H7L                      CAS 53951-06-7 (8419)  
Adenosine-3'-(diphosphoric acid)-5'-(triphosphoric acid);

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

Mg++            sp    oth/un 25°C 0.10M C                      1979MKb (75584)1413

K1eff=5.70

Method: divalent cation selective electrode. Medium: 0.1 M triethanolamine  
/HCl buffer, pH 8.0.

\*\*\*\*\*

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  
-----

Mg++            gl    KNO3      25°C 0.10M U                      K1=1.4            1974MSa (75617)1414

\*\*\*\*\*

C10H19N04                      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  
-----

Mg++            gl    KCl        20°C 0.10M U                      K1=3.6            1955SAa (75637)1415

\*\*\*\*\*

C10H19N3O4                      H2L                      (8095)  
1,4,7-Triazacyclononane-1,4-diethanoic acid;

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

Mg++            gl    KCl        25°C 1.0M U                      K1=6.07            2000LKc (75655)1416

\*\*\*\*\*

C10H20N2O4                      H2L                      CAS 58534-57-9 (2113)  
Hexamethylenediamine-N,N-diethanoic acid; H2N(CH2)6.N(CH2.COOH)2

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

Mg++            gl    KNO3      25°C 0.10M U                      1977TIa (75775)1417

K(Mg+HL)=2.65

\*\*\*\*\*

C10H20N2O4                      H2L                      CAS 5578-84-7 (5914)  
 N,N-Dihydroxydecanediamide; HN(OH).CO.(CH2)8.CO.NH(OH)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	0.10M	C			K1=4.34 B(MgHL)=12.47	1989EHa (75797)	1418

\*\*\*\*\*  
 C10H20N2O6                      H2L                      (7208)  
 1,2-Diaminoethane-N,N'-bis(3-hydroxy-2-butanoic acid)); (CH2NHCH(COOH)CH(OH)CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KNO3	20°C	0.10M	U			K1=2.8	1970DKa (75833)	1419

\*\*\*\*\*  
 C10H20N2O6                      H2L                      CAS 96817-35-5 (4755)  
 1,2-Diaminoethane-N,N'-bis(4-hydroxy-2-butanoic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	sp	oth/un	20°C	0.10M	U			K1=2.8	1972DKa (75844)	1420

\*\*\*\*\*  
 C10H20N2O6                      H2L                      CAS 5616-21-7 (3330)  
 N',N'-Di-(2-hydroxyethyl)diaminoethane-N,N-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	oth/un	25°C	0.10M	U			K1=4.8	1953KPb (75851)	1421

\*\*\*\*\*  
 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
Mg++	con	mixed	25°C	20%	C			K1=4.74	2003SIa (75966)	1422

Medium: 20% w/w propylene carbonate/ethylene carbonate.

Mg++	nmr	non-aq	27°C	100%	C			K1=4.74	2000SMg (75967)	1423
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Medium: acetonitrile. Method: competitive 7Li nmr technique.

Mg++	cal	non-aq	25°C	100%	C	H		K1=3.46	1992BSc (75968)	1424
------	-----	--------	------	------	---	---	--	---------	-----------------	------

Medium: propylene carbonate. DH(K1)=-27.5 kJ mol-1, DS(K1)=-26 J K-1 mol-1

Mg++	con	non-aq	25°C	100%	C			K1=4.32	1992STa (75969)	1425
------	-----	--------	------	------	---	--	--	---------	-----------------	------

Medium: propylene carbonate.

Mg++	vlt	alc/w	25°C	100%	C			K1=2.30	1987CBd (75970)	1426
------	-----	-------	------	------	---	--	--	---------	-----------------	------

Medium: methanol, 0.10 M Et4NI or Bu4NClO4. Method: polarography.

\*\*\*\*\*



C10H22N4O4                      H2L                      CAS 66650-98-4 (1587)  
3,6,9,12-Tetraazatetradecanedioic acid; (HOOC.CH2.NH.CH2.CH2.NH.CH2-)2

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

Mg++	gl	NaCl	25°C	0.15M	C		K1=2.34 B(MgH-1L)=-8.54	1990JKa (76430)	1427
------	----	------	------	-------	---	--	----------------------------	-----------------	------

\*\*\*\*\*  
C10H22O5                      L                      Tetraglyme                      CAS 143-24-8 (121)  
2,5,8,11,14-Pentaoxapentadecane; (CH3.O.CH2.CH2.O.CH2.CH2.)20

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

Mg++	con	non-aq	25°C	100%	C	H	K1=2.06	1992BSc (76437)	1428
Medium: propylene carbonate. By calorimetry, DH(K1)=-15.6 kJ mol-1, DS(K1)=-13 J K-1 mol-1.									

\*\*\*\*\*  
C10H24O6P2                      H4L                      CAS 5943-21-5 (3920)  
Decane-1,10-diphosphonic acid; H2O3P.(CH2)10.PO3H2

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

Mg++	gl	R4N.X	25°C	1.0M	U		K1=<1 K(Mg+HL) < 1	1962IMb (76714)	1429
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\*\*\*\*\*  
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
-------	-----	--------	------	------	-----	-------	-------------	-----------	--------

Mg++	gl	oth/un	25°C	0.10M	U		K1=6.40	1959BYa (76756)	1430
------	----	--------	------	-------	---	--	---------	-----------------	------

\*\*\*\*\*  
C10H26N4                      L                      Spermine                      CAS 71-44-3 (291)  
4,9-Diazadodecane-1,12-diamine; (H2N.CH2.CH2.CH2.NH.CH2.CH2.)2

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

Mg++	gl	NaCl	25°C	0.0	C		K1=1.69 K(Mg+HL)=0.79 K(Mg+H2L)=0.11 K(Mg+H3L)=-0.6 K(Mg+MgL)=0.1	1999SFC (76794)	1431
------	----	------	------	-----	---	--	-------------------------------------------------------------------------------	-----------------	------

Extrapolated from data for 0.03-0.96 M NaCl using the Pitzer equation.

\*\*\*\*\*  
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
-------	-----	--------	------	------	-----	-------	-------------	-----------	--------

Mg++	gl	KCl	25°C	0.10M	C		K1=7.9	1998BRa (76801)	1432
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\*K(MgL)=-9.5

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C10H26N4S4 L CAS 55677-43-5 (1178)

1,1,2,2-Tetramercaptoethylamine-ethane; (CH(S.CH2.CH2.NH2)2)2

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

Mg++ gl NaCl04 25°C 0.10M U 1976CJa (76817)1433

K(Mg+H2L)=3.93

\*\*\*\*\*

C11H8N6O8S2 H5L CAS 74385-48-1 (897)

2-(1H-Tetrazol-5-ylazo)chromotropic acid;

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

Mg++ sp NaCl04 25°C 0.10M U 1982PRa (76948)1434

K(Mg+H2L=MgHL+H)=-5.21

\*\*\*\*\*

C11H8O3 H2L CAS 92-70-6 (1130)

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

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

Mg++ gl KNO3 30°C 0.15M U IH K1=4.22 B2=8.09 1976SSc (77111)1435

\*\*\*\*\*

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  
-----

Mg++ gl diox/w 30°C 75% U K1=8.10 B2=15.07 1953UFe (77155)1436

\*\*\*\*\*

C11H8O4 HL CAS 7555-37-5 (4812)

3-Acetyl-4-hydroxycoumarin

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

Mg++ gl diox/w 35°C 50% U K1=2.00 B2=3.76 1971MAa (77169)1437

Medium: 50% dioxan, 0.01 M NaCl04

\*\*\*\*\*

C11H9NO2 HL CAS 92609-55-3 (4827)

5-Acetyl-8-hydroxyquinoline;

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

Mg++ gl diox/w 25°C 60% U K1=4.91 B2=9.39 1973SCd (77326)1438

Medium: 60% dioxan, 0.1 M NaCl04

\*\*\*\*\*

C11H9NO2S HL CAS 29556-13-6 (1450)

N-Phenyl-2-thenoylhydroxamic acid; C4H3SCON(C6H5)OH

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  diox/w 25°C 70% U          K1=7.27  B2=13.43  1992DAc (77347)1439
For N-m-Cl derivative, K1=7.34, K2=6.20; for N-p-Cl, K1=7.64, K2=6.44.
*****
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
-----
Mg++       gl  diox/w 30°C 0.10M U          K1=2.43          1981KSa (77362)1440
*****
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
-----
Mg++       gl  diox/w 25°C 70% U          K1=7.00  B2=12.87  1992DAc (77389)1441
For N-p-tolyl derivative, K1=7.80, K2=6.62, for N-m-Cl, K1=7.18,
K2=6.03; for N-p-Cl, K1=7.46, K2=6.34.
*****
C11H9NO4   H2L                               CAS 4321-82-7 (4829)
3-Acetyl-4-hydroxycoumarin oxime;
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  diox/w 35°C 50% U          K(Mg+HL)=2.37
                                     K(Mg+2HL)=4.37
1971MAa (77411)1442
Medium: 50% dioxan, 0.01 M NaClO4
*****
C11H10N2O  L                               (7591)
4'-(Imidazol-1-yl)acetophenone;
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  NaNO3 25°C 0.50M M          K1=0.09          1998KSa (77667)1443
*****
C11H11NO2  HL                               CAS 35385-27-4 (8689)
8-Hydroxy-(2-hydroxyethyl)quinoline;
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       sp  KCl   30°C 1.0M M          K1=3.60          1996BTa (77767)1444
*****
C11H11NO6  H3L                               CAS 1147-65-5 (425)
N-(2'-Carboxyphenyl)iminodiethanoic acid; HOOC.C6H4.N(CH2.COOH)2
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Medium: 0.1 mol/L KCl in 3:7 EtOH/H2O mixture

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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  
-----

Mg++ gl diox/w 20°C 75% M T K1=9.28 B2=15.81 1980Gmd (77965)1452

\*\*\*\*\*

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  
-----

Mg++ gl KNO3 25°C 0.10M U M K1=2.02 1988MBa (78186)1453

Mg++ gl KNO3 35°C 0.10M C M K1=2.09 1983KSc (78187)1454

K(MgHA+L)=3.06

A is adenine.

-----  
Mg++ gl NaCl 20°C 0.15M U M K1=1.70 1983VDb (78188)1455  
-----

Mg++ gl oth/un 20°C 0.01M U K2=<4 1950ALa (78189)1456

\*\*\*\*\*

C11H12N2O2 HL (9226)

3-[Diphenylazo]penta-2,4-dione;

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

Mg++ gl alc/w 25°C 0.1M U K1=7.22 2004GMc (78249)1457

Medium: 0.1 mol/L KCl in 3:7 EtOH/H2O mixture

\*\*\*\*\*

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  
-----

Mg++ gl KCl 25°C 0.10M U T K1=6.36 2005ACa (78315)1458

For 35 C K1=6.26; for 45 C K1=6.14

\*\*\*\*\*

C11H12N2O6 H2L (3942)

N-(2-Nitrobenzyl)iminodiethanoic acid; O2N.C6H4.CH2.N(CH2.COOH)2

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

Mg++ gl KNO3 25°C 0.10M U K1=2.65 1962ANa (78334)1459

\*\*\*\*\*

C11H12N2O6 H2L CAS 76268-69-4 (3943)

N-(4-Nitrobenzyl)iminodiethanoic acid; O2N.C6H4.CH2.N(CH2.COOH)2

-----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	U		K1=1.6	1962ANa (78337)	1460
*****									
C11H12N2O7		H3L					CAS 76268-70-5	(3360)	
N-(2-Hydroxy-5-nitrobenzyl)iminodiethanoic acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	20°C	0.10M	U		K1=6.85 K(Mg+HL)=1.84	1952SAb (78341)	1461
*****									
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
Mg++	gl	diox/w	20°C	75%	M T		K1=9.50 B2=15.91	1980Gmd (78371)	1462
*****									
C11H12O3		HL					CAS 94-02-0	(3351)	
Ethyl benzoylacetate; C6H5.CO.CH2.CO2.C2H5									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	diox/w	30°C	75%	U		K1=8.65 B2=15.65	1954UFa (78396)	1463
*****									
C11H13NO4		H2L					CAS 83070-98-8	(3944)	
N-Benzylaminobutanedioic acid (N-Benzylaspartic acid)									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	30°C	0.10M	U		K1=1.74	1966SHc (78554)	1464
*****									
C11H13NO4		H2L					CAS 3987-53-9	(966)	
N-Benzyliminodiethanoic acid; C6H5.CH2.N(CH2.CO2H)2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	oth/un	?	?	U		K1=2.6	1975DTa (78584)	1465
-----									
Mg++	gl	KCl	30°C	0.10M	U		K1=3.02	1966SHc (78585)	1466
-----									
Mg++	gl	KNO3	25°C	0.10M	U		K1=2.63	1962ANa (78586)	1467
*****									
C11H13NO5		H3L HBIDA					CAS 7372-13-6	(1603)	
N-(2-Hydroxybenzyl)iminodiethanoic acid; HO.C6H4.CH2.N(CH2.CO2H)2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	20°C	0.10M	U		K1=7.28	1952SAb (78614)	1468



C11H17NO3                      H2L      Isoprenaline                      CAS 586-06-1    (3950)  
 3,4-Dihydroxy-1-(1'-hydroxy-2'-(propylamino)ethyl)benzene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.10M	U T H		K1=4.55    B2= 6.72	1988CVa (79155)	1476

Data for 0 and 37 C. DH(K1)=-29.3 kJ mol<sup>-1</sup>, DS(K1)=-10.5 J K<sup>-1</sup> mol<sup>-1</sup>;  
 DH(K2)=-5.48, DS(K2)=23.5.

\*\*\*\*\*  
 C11H17NO6                      H3L                                              (3951)  
 N-(2'-Carboxycyclohexyl)iminodiethanoic acid; H00C.C6H10.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	20°C	0.10M	U		K1=5.3	1966IMa (79164)	1477

\*\*\*\*\*

C11H17NO8S                      H3L                                              CAS 91649-51-3    (8438)  
 N,N,S-Tris(carboxymethyl)methionine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.10M	C			1984RFd (79174)	1478

K(Mg+HL)=3.53

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 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
Mg++	gl	KNO3	25°C	0.10M	U		K1=9.20	1980KBb (79257)	1479
Mg++	gl	KNO3	20°C	0.10M	U		K1=9.95	1978NLb (79258)	1480
Mg++	gl	KCl	25°C	0.10M	U		K1=10.08	1970AIa (79259)	1481

DL-isomer. For D-isomer, K1=10.05

\*\*\*\*\*  
 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
Mg++	cal	KNO3	20°C	0.10M	U    H			1964ANa (79417)	1483

DH(K1)=38.0 kJ mol<sup>-1</sup>, DS=247 J K<sup>-1</sup> mol<sup>-1</sup>

Mg++	gl	KNO3	20°C	0.10M	U		K1=6.21 K(Mg+HL)=3.05	1964LAa (79418)	1484
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Mg++	gl	KCl	20°C	0.10M	U		K1=6.02	1948SAa (79419)	1485
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$$K(\text{Mg}+\text{HL})=2.91$$

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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
Mg++	gl	KNO3	25°C	0.1M	U	I	K1=9.02 K(Mg+HL)=4.79 K(MgL+H)=5.41	2004GKb (79534)	1486
In 1.0 mol/L KNO3 K1=8.58; K(Mg+HL)=4.50; K(MgL+H)=5.34									
In 0.5 mol/L KNO3 K1=8.64; K(Mg+HL)=4.50; K(MgL+H)=5.36									

Mg++	gl	KCl	25°C	0.1M	C		K1=4.98	2000VGB (79535)	1487
Also for I=0.5 M K1=4.24; for I=1.0 M K1=4.10									

Mg++	oth	KNO3	20°C	0.10M	U		K1=4.5	1965JMb (79536)	1488
Method: electrophoresis									

Mg++	gl	KCl	20°C	0.10M	U		K1=4.93	1964DSc (79537)	1489
By polarography: K1=5.25									

Mg++	gl	KCl	30°C	0.10M	U		K1=5.3	1963GHa (79538)	1490
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Mg++	gl	KCl	20°C	0.10M	U		K1=4.35 K(Mg+HL)=1.63	1959KR a (79539)	1491
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C11H18N2O9                      H4L                      CAS 668-21-1 (2562)  
2-Hydroxy-1,3-diaminopropane-N,N'-di(1,4-butanedioic) acid

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	U		K1=3.67 K(Mg+HL)=2.44	1974KGA (79589)	1492

\*\*\*\*\*

C11H18N5O12P3                      H4L                      CAS 5085-65-4 (4875)  
Adenylylmethylenediphosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	ix	KCl	25°C	0.10M	U		K1eff=4.11	1971YBa (79640)	1493

pH=7.4. At pH 9.2, K1eff=4.58

\*\*\*\*\*

C11H20N2O5                      H2L                      (5609)  
1-Oxa-4,8-diazacyclodecane-N,N'-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	cal	NaClO4	25°C	0.10M	U	H	K1=3.8	1985EHa (79719)	1494

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B(Mg3L)=12.65. I=0 to 3 M Et4NI etc.

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Mg++ sp non-aq 25°C 100% U I K1=5.11 B2=8.56 1992GSa (80409)1501  
Medium: MeCN. In acetone:K1=4.22, K2=2.40; in MeOH:K1=2.14. By fluorimetry

Mg++ EMF KCl 25°C 0.25M U T H K1=1.55 1985CRa (80410)1502  
K1=1.61(10 C);K1=1.49(40 C). DH(K1)=-7.1 kJ mol<sup>-1</sup>, DS=4 J K<sup>-1</sup> mol<sup>-1</sup>

Mg++ sp NaClO4 25°C 0.20M U I K1=2.48 1983EBa (80411)1503

Mg++ gl KNO3 35°C 0.10M C K1=2.21 1979MTb (80412)1504

Mg++ gl NaClO4 25°C 0.10M C M K1=1.45 1978MSd (80413)1505  
B(MgL(ATP))=6.10

Mg++ gl KNO3 20°C 0.10M U K1=1.2 1963ANG (80414)1506  
\*\*\*\*\*  
C12H10N2O2 H2L CAS 2050-14-8 (3378)  
2,2'-Dihydroxyazobenzene; HO.C6H4.N:N.C6H4.OH

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

Mg++ sp KCl rt 0.10M U 1960DEa (80698)1507  
K1eff=4.85 (pH 10)

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C12H10N2O3 H3L CAS 69323-27-9 (3971)  
2,2',4'-Trihydroxyazobenzene; HO.C6H4.N:N.C6H3(OH)2

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

Mg++ sp KCl rt 0.10M U 1960DEa (80719)1508  
K1eff=3.50 (pH 10)

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C12H10O2 HL CAS 830-81-9 (3371)  
2-Acetyl-1-hydroxynaphthalene;

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

Mg++ gl diox/w 30°C 75% U K1=7.15 B2=12.70 1954UFa (80797)1509  
\*\*\*\*\*  
C12H11NO2S HL CAS 29556-14-7 (2049)  
N-(4-Tolyl)-2-thenoylhydroxamic acid; C4H3SCON(OH)C6H4CH3

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

Mg++ gl diox/w 25°C 70% U K1=8.02 B2=14.88 1992DAc (80833)1510  
\*\*\*\*\*  
C12H11NO9 H5L (3975)  
N-(2',5'-Dicarboxy-4'-hydroxyphenyl)iminodiethanoic acid;

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

Mg++ gl KNO3 25°C 0.10M U 1967UKa (80852)1511

K(Mg+HL)=4.59

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C12H11N3O5 HL (6787)

2-Hydroxy-1-naphthaldehyde thiosemicarbazone;

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Mg++ gl diox/w 20°C 75% U K1=3.39 B2=6.70 1992SSc (80885)1512

Medium: 75% v/v dioxan/H2O and other mixtures, 0.1 M NaClO4

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C12H11N3O2 HL CAS 50536-09-5 (6323)

2-Hydroxy-1-naphthaldehyde-semicarbazone; HO.C10H6.CH:N.NH.CO.NH2

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Mg++ gl diox/w 20°C 75% U K1=3.21 B2=6.25 1992SSc (80913)1513

Medium: 75% v/v dioxan/H2O and other mixtures, 0.1 M NaClO4

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C12H12N06Cl H3L (4004)

(alpha-Carboxy-4'-chlorobenzyl)iminodiethanoic acid;

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Mg++ gl KCl 20°C 0.10M U K1=4.45 1966IMb (80982)1514

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C12H12N2O3 HL Nalidixic acid CAS 389-08-2 (1401)

1-Ethyl-1,4-dihydro-7-methyl-4-oxo-1,8-naphthyridine-3-carboxylic acid;

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

Mg++ gl NaCl 37°C 0.15M U K1=3.05 B2=5.95 1984CGb (81065)1515

B(MgH-1L)=-4.65

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Mg++ sp KCl 25°C 0.10M U K1=3.0 1978TSb (81066)1516

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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  
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Mg++ gl NaNO3 25°C 0.50M M K1=-0.04 1998KSd (81101)1517

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C12H12O4 HL (3374)

Ethyl benzoylpyruvate; C6H5.CO.CH2.CO.CO.O.CH2.CH3

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Mg++ gl diox/w 30°C 75% U K1=7.85 B2=13.90 1954UFa (81169)1518

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C12H13NO5 H2L CAS 90274-75-2 (3979)  
N-(2'-Acetylphenyl)iminodiethanoic acid; CH3.CO.C6H4.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	U			K1=3.06	1965AUa (81233)	1519

C12H13NO5 H2L CAS 2847-18-9 (3980)  
N-(Benzoylmethyl)iminodiethanoic acid; C6H5.CO.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KCl	30°C	0.10M	U			K1=3.11	1966SHc (81238)	1520

C12H13NO6 H3L CAS 17335-88-5 (3981)  
1-(Carboxybenzyl)iminodiethanoic acid; C6H5.CH(COOH).N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KCl	20°C	0.10M	U			K1=4.64	1966IMb (81242)	1521

C12H13N2O5Br H2L (4005)  
(2'-(4''-Bromoanilino)-2'-oxoethyl)iminodiethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KCl	30°C	0.10M	U			K1=2.06	1966SHc (81260)	1522

C12H13N5O4 L Ethenoadenosine CAS 39007-51-7 (6331)  
N6-Ethenoadenosine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	0.10M	C			K1=<0.3	1983SSc (81318)	1523

Also studied using spoeicrophotometry and nmr

C12H13O10S H5L (8082)  
3-Bis(N,N-carboxymethyl)aminomethyl-2-hydroxy-5-sulphobenzoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.1M	U			K1=8.2	1978TZa (81325)	1524

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
Mg++	gl	NaClO4	25°C	0.10M	C			K1=1.61	1984SSe (81383)	1525

C12H14O14                      H6L                      CAS 111451-17-3 (5895)  
3,6-Dioxaoctane-1,2,4,5,7,8-hexacarboxylic acid; (CH<sub>2</sub>(COOH).CH(COOH).O.CH(COOH)-)<sub>2</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	gl	KCl	25°C	0.10M	C			K1=4.53 K(MgL+H)=5.44 K(MgL+MgL)=0.1	1989MMd (81414)	1526
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C12H15N04                      H2L                      CAS 36369-62-7 (4928)  
(Phenethylimino)diethanoic acid; C<sub>6</sub>H<sub>5</sub>.CH<sub>2</sub>.CH<sub>2</sub>.N(CH<sub>2</sub>.COOH)<sub>2</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	gl	KCl	20°C	0.10M	U			K1=3.12    B2=4.12 K(Mg+HL)=1.47	1971KTl (81463)	1527
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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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Mg++	gl	oth/un	25°C	0.0	U			K1=6.73	1970TTb (81495)	1528
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C12H15N05                      H2L                      (3982)  
N-(2'-Phenoxyethyl)iminodiethanoic acid; C<sub>6</sub>H<sub>5</sub>O.CH<sub>2</sub>.CH<sub>2</sub>.N(CH<sub>2</sub>.COOH)<sub>2</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	gl	KCl	30°C	0.10M	U			K1=3.03	1966SHc (81503)	1529
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C12H15N05                      H3L                      CAS 56042-30-9 (4929)  
N-(4-Hydroxyphenethylimino)diethanoic acid; HO.C<sub>6</sub>H<sub>4</sub>.CH<sub>2</sub>.CH<sub>2</sub>.N(CH<sub>2</sub>.COOH)<sub>2</sub>

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

Mg++	gl	KCl	20°C	0.10M	U			K(Mg+HL)=3.21 K(Mg+2HL)=4.21 K(Mg+H2L)=1.51	1971KTl (81508)	1530
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C12H16N2O8                      H4L                      (6460)  
1,4-Diaminobut-2-yne-N,N,N',N'-tetraethanoic acid;  
(HOOC.CH<sub>2</sub>)<sub>2</sub>N.CH<sub>2</sub>.CC.CH<sub>2</sub>.N(CH<sub>2</sub>.COOH)<sub>2</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	gl	KCl	25°C	0.10M	U			K1=3.31 K(Mg+HL)=2.81 K(Mg+MgL)=2.6	1979TSa (81600)	1531
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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
Mg++	gl	NaNO3	25°C	0.10M	U		K1=4.24 K(Mg+HL)=2.3 K(MgL+H)=4.6	1986SSb (81629)	1532

\*\*\*\*\*  
 C12H16O4                                      L                                      CAS 25887-95-6    (686)  
 2,3-Benzo-1,4,7,10-tetraoxacyclododeca-2-ene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	non-aq	25°C	100%	U		K1=3.45	2000EGa (81671)	1533

Method: fluorescence emission spectroscopy. Medium: acetonitrile.

\*\*\*\*\*  
 C12H17N4O4PS                      H2L                                      CAS 495-23-8    (895)  
 Thiamine orthophosphoric acid, Aneurine monophosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl	23°C	0.15M	U		K1=1.99	1989DBb (81770)	1534
Mg++	gl	KNO3	45°C	0.10M	U T		K1=2.62 K(MgL+H)=2.00	1981TTa (81771)	1535

5 C: K1 = 2.15

Mg++	gl	KNO3	35°C	0.10M	U		K1=2.84 (Mg+HL)=2.38	1978KBa (81772)	1536
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 C12H18N2O5S                      H2L                                      CAS 80459-15-0    (1595)  
 2-Nitroso-5-(N-propyl-3-sulfopropylamino)phenol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	C		K1=2.16	1988YSc (81804)	1537

\*\*\*\*\*  
 C12H18N2O8                                      H2L                                      CAS 93031-52-8    (5829)  
 1,4-Dioxa-7,10-diazayclododecane-5,12-dione-7,10-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	R4N.X	25°C	0.10M	C		K1=3.67 K(MgL+H)=5.18	2002DCb (81830)	1538

Medium: 0.10 M Me4NNO3.

\*\*\*\*\*  
 C12H18N2O8                                      H4L                                      CAS 77441-50-0    (2930)  
 cis-1,4-Diaminocyclohexane-N,N'-di(propanedioic acid)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	U		K1=3.82	1982SGb (81849)	1539
*****									
C12H18N2O8		H4L					(8011)		
trans-1,4-Diaminobuten-2-N,N,N',N'-tetraethanoic acid									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	20°C	0.10M	U		K1=3.83 K(Mg+HL)=3.15 K(MgL+Mg)=2.9	1976TTb (81890)	1540
*****									
C12H18N2O8		H4L					CAS 82481-42-3	(2931)	
trans-1,4-Diaminocyclohexane-N,N'-di(propanedioic acid)									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	U		K1=2.55	1982SGb (81898)	1541
*****									
C12H18N4O7P2S		H3L					Cocarcboxylase T CAS 136-09-4	(894)	
Thiamine pyrophosphoric acid, Aneurine pyrophosphoric acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl	23°C	0.15M	U		K1=3.26	1989DBb (81939)	1542
Mg++	gl	KNO3	45°C	0.10M	U T		K1=3.55 K(MgL+H)=2.46	1981TTa (81940)	1543
5 C: K1 = 2.84									
Mg++	gl	KNO3	35°C	0.10M	U		K1=3.68 K(Mg+HL)=2.52	1978KBa (81941)	1544
*****									
C12H18O8S4		H4L					CAS 51865-19-1	(1140)	
(Butanediylidenetetraethio)tetraethanoic acid; ((HOOCH2)2CH2)2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	EMF	NaClO4	25°C	0.10M	U		K1=3.24 K(Mg+HL)=2.48	1975JBa (81965)	1545
*****									
C12H19NO6		H3L					(3991)		
N-(2'-Carboxycycloheptyl)iminodiethanoic acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	20°C	0.10M	U		K1=6.15	1966IMa (81980)	1546
*****									



C12H20N2O8                      H4L                      CAS 1798-13-6 (4935)

1,2-Diaminobutane-N,N,N',N'-tetraethanoic acid;  
(HOOC.CH2)2N.CH2.CH(C2H5).N(CH2.COOH)2

-----  
Metal            Mtd Medium Temp Conc Cal Flags Lg K values            Reference ExptNo  
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Mg++            gl    KNO3    20°C 0.10M U            K1=10.15            1969NDa (82019)1547

\*\*\*\*\*

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  
-----

Mg++            gl    KNO3    20°C 0.10M U            K1=3.90            1973DSc (82055)1548

K(Mg+HL)=1.4

-----  
Mg++            gl    KNO3    25°C 0.10M U            K1=3.0            1972GBE (82056)1549

K(Mg+HL)=1.26

K(Mg+MgL)=2.74

\*\*\*\*\*

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  
-----

Mg++            gl    KNO3    20°C 0.10M U            K1=8.58            1966MKb (82124)1550

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Mg++            gl    KCl     30°C 0.10M U            K1=9.41            1963GHa (82125)1551

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C12H20N2O8                      H4L                      CAS 40623-42-5 (3388)

1,2-Diaminoethane-N,N'-diethanoic-N,N'-dipropanoic acid;

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

Mg++            gl    KCl     30°C 0.10M U            K1=6.9            1952CMc (82157)1552

\*\*\*\*\*

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  
-----

Mg++            gl    KNO3    20°C 0.10M U    H                      1964ANa (82209)1553

K(Mg+HL)=3.50

By calorimetry: DH(K1)=35.5 kJ mol<sup>-1</sup>, DS=226 J K<sup>-1</sup> mol<sup>-1</sup>

-----  
Mg++            gl    KNO3    20°C 0.10M U            K1=6.23            1964LAa (82210)1554

-----  
Mg++            EMF KCl    20°C 0.10M C                      1948SAa (82211)1555

K(Mg+HL)=3.44

Method: H electrode

\*\*\*\*\*

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
Mg++	gl	KCl	25°C	0.10M	U		K1=11.41(DL) K1=11.38(D)	1970AIa (82279)	1556

Mg++	gl	KCl	20°C	0.10M	U		K1=11.33	1966IPa (82280)	1557
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Mg++	gl	KCl	20°C	0.10M	U		K1=11.44	1963MDa (82281)	1558
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C12H20N2O8                      H4L                      CAS 63818-08-6 (2584)  
meso-2,3-Diaminobutane-N,N'-di(1,4-butanedioic acid);  
(CH(CH3).NH.CH(COOH)(CH2.COOH))2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	U		K1=5.75 K(Mg+HL)=2.02 K(Mg+MgL)=2.23	1978SGc (82350)	1559

\*\*\*\*\*

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
Mg++	gl	KCl	20°C	0.10M	U		K1=8.84	1966IPa (82380)	1560
Mg++	oth	KNO3	20°C	0.10M	U		K1=10.5	1965JMb (82381)	1561
Method: electrophoresis									

Mg++	gl	KCl	20°C	0.10M	U		K1=8.85 K(Mg+HL)=2.07	1963MDa (82382)	1562
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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
Mg++	gl	KNO3	20°C	0.10M	U	H	K1=4.61 K(Mg+HL)=3.2	1964ANa (82446)	1563
By calorimetry: DH(K1)=17.3 kJ mol <sup>-1</sup> , DS=147 J K <sup>-1</sup> mol <sup>-1</sup>									

Mg++	gl	KCl	20°C	0.10M	U		K1=4.61 K(Mg+HL)=3.20	1964PCa (82447)	1564
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C12H20N2O8S2                      H4L                      (3395)  
2,2'-Dithiobisethyleneiminodiethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KN03	25°C	0.10M	U			K1=4.83 K(MgL+H)=8.68 K(Mg+HL)=3.88 B(Mg2L)=7.94	1988PGb (82486)	1565

\*\*\*\*\*

C12H20N2O8Se                      H4L                      (4007)  
((2,2'-Selenodiethylene)dinitrilo)tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	oth/un	25°C	0.10M	U			K1=6.15 K(Mg+HL)=3.17	1966KLc (82491)	1566

\*\*\*\*\*

C12H20N2O9                      H4L                      EEDTA                      CAS 923-73-9 (2112)  
Oxa-bis(ethyleneimino)diethanoic acid; ((HOOC.CH2)2N.CH2.CH2)2O

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	cal	KN03	25°C	0.10M	U	H			1965WHa (82520)	1567
DH(K1)=15.0 kJ mol-1, DS=209 J K-1 mol-1										
Mg++	gl	KN03	20°C	0.10M	U	H		K1=8.32 K(Mg+HL)=3.8	1964ANa (82521)	1568
By calorimetry: DH(K1)=14.7 kJ mol-1, DS=209 J K-1 mol-1										
Mg++	gl	KCl	20°C	0.10M	U			K1=8.31 K(Mg+HL)=3.75	1964PCa (82522)	1569

\*\*\*\*\*

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KN03	20°C	0.10M	U			K1=4.11 K(Mg+HL)=3.3 K(MgL+Mg)=2.95	1967DSb (82583)	1570

\*\*\*\*\*

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KN03	20°C	0.10M	C			K1=9.65	1978NLa (82668)	1571

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*****
C12H21N06          H3L          (7209)
1-Carboxy-1-aminoheptane-N,N-diethanoic acid; H00C.CH(C6H13)N(CH2.C00H)2
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  KNO3   20°C 0.10M U          K1=5.44          1985LBc (82691)1572
*****
C12H21N306          H3L      NOTA          (5589)
1,4,7-Triazacyclononane-N,N',N''-triethanoic acid;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  NaNO3   25°C 0.10M C T H      K1=9.69          1987BGc (82727)1573
                        K(MgL+H)=4.6
DH(K1)=1.7 kJ mol-1. DH(MgL+H)=-32.2 kJ mol-1; DS=20.9 J K-1 mol-1
-----
Mg++       EMF NaNO3   25°C 0.10M C          K1=8.93          1985MBb (82728)1574
*****
C12H21N306          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
-----
Mg++       gl  oth/un  25°C 0.10M M          K1=ca.4.5        1983BSd (82749)1575
Medium: 0.10 M KClO4.
*****
C12H22N206          H2L          (6394)
1,7-Dioxa-4,10-diazacyclododecan-4,10-diethanoic acid;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  R4N.X   25°C 0.10M C          K1=5.62          1992ADa (82790)1576
Medium: 0.1 M Me4NNO3
*****
C12H22N206          H2L          (6641)
7,10-Diaza-1,4-Dioxacyclododecane-7,10-diethanoic acid;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  R4N.X   25°C 0.10M C          K1=4.79          1992ADa (82804)1577
Medium: 0.1 M Me4NNO3
*****
C12H22N406          H2L      ICRF 243          (5772)
DL-NN'-Dicarboxamidomethyl-NN'-dicarboxymethyl-2,3-diaminobutane;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  NaCl    37°C 0.15M U          K1=5.874          1985HCa (82832)1578
*****

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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
Mg++	gl	NaCl	37°C	0.15M	C		K1=4.876	1982HMB (82842)	1579

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
Mg++	gl	NaCl	37°C	0.15M	U		K1=2.912	1985HCA (82850)	1580

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
Mg++	gl	R4N.X	25°C	0.10M	C		K1=6.80 B(MgHL)=13.82	1992ADA (82971)	1581

Medium: 0.1 M Me4NNO3

C12H24N2O4                      H2L                      (9225)  
5,8-Diaza-4,9-dicarboxydodecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.5M	U		K1=4.78 K(Mg+HL)=4.23	2004FCA (83044)	1582

For 1.0 mol/L KNO3 K1=4.64; K(Mg+HL)=4.17

For 1.5 mol/L KNO3 K1=4.60; K(Mg+HL)=4.17

C12H24N3O6P                      H3L                      CAS 176446-04-1 (8684)  
1,4,7-Triazacyclononane-N-(methylenemethylphosphinic acid)-N',N''-bis(ethanoic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.10M	C T H		K1=8.9 B(MgHL)=14.8	1996HSB (83062)	1583

Data for 37 C. By 31P nmr, DH(K1)=4 kJ mol<sup>-1</sup>; DH(Mg+HL=MgL+H)=57.

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
Mg++	gl	KCl	25°C	0.10M	C		K1=5.40	1997HTA (83078)	1584

C12H24O4S2 L CAS 296-39-9 (4938)  
 1,4,10,13-Tetraoxa-7,16-dithiacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	cal	non-aq	25°C	100%	C	H	K1=<1	1992BSc (83131)	1585

Medium: propylene carbonate. DH(K1)=-3.2 kJ mol-1.

C12H24O6 L 18-Crown-6 CAS 17455-13-9 (577)  
 1,4,7,10,13,16-Hexaoxacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	EMF	alc/w	25°C	100%	C		K1=3.36	2004ZTa (83251)	1586

Medium: 100% methanol, 0.05 M Bu4NClO4. Method: Ag electrode, competition with Ag+ ion.

Mg++	con	mixed	25°C	20%	C		K1=4.61	2003SIa (83252)	1587
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Medium: 20% w/w propylene carbonate/ethylene carbonate.

Mg++	nmr	non-aq	27°C	100%	U	I	K1=2.31	2000SMd (83253)	1588
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Competitive method by 7Li nmr. Medium: acetonitrile (AN). Also data for 50% w/w AN/nitrobenzene (K1=2.62) and 50% w/w AN/nitromethane (K1=3.05).

Mg++	con	alc/w	25°C	90%	C	TIH T	K1=2.70	1999SSc (83254)	1589
------	-----	-------	------	-----	---	-------	---------	-----------------	------

Medium: 90% w/w MeOH/H2O. Data for 5-40C. DH(K1)=-4.67 kJ mol-1, DS(K1)=35.94 J K-1 mol-1.

Mg++	cal	non-aq	25°C	100%	C	H	K1=1.99	1999WBa (83255)	1590
------	-----	--------	------	------	---	---	---------	-----------------	------

Medium: N,N-dimethylformamide. DH(K1)=-0.7 kJ mol-1.

Mg++	ISE	mixed	10°C	52%	U	T	K1=2.10	1997BEa (83256)	1591
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Medium: 52% w/w CH3CN/H2O. Data for MeCN/H2O mixtures 283-318 K. For 20%, 283K: K1=1.42; 52%, 293 K: K1=1.28; 20%, 293 K: K1=2.04

Mg++	dis	non-aq	25°C	100%	U			1993INa (83257)	1592
------	-----	--------	------	------	---	--	--	-----------------	------

B(MgPL)=3.99

K is the equilibrium constant for extraction of the metal picrate (P) into CH2Cl2. For extraction from D2O, B=4.07.

Mg++	cal	non-aq	25°C	100%	C	H	K1=2.94	1992BSc (83258)	1593
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Medium: propylene carbonate. DH(K1)=-30.2 kJ mol-1, DS(K1)=-45.3 J K-1 mol-1.

Mg++	con	non-aq	25°C	100%	C		K1=4.42	1992STa (83259)	1594
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Medium: propylene carbonate.

Mg++	nmr	non-aq	30°C	100%	U	I	K1=3.08	1991ASc (83260)	1595
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Medium: nitromethane. In MeCN, K1=2.77.

Mg++ vlt non-aq 25°C 100% C K1=2.63 1991SSb (83261)1596  
 Method: competitive complexation with Tl+; use of Tl(Hg)/Tl couple.  
 Medium: acetonitrile, 0.05 M Et4NClO4.

Mg++ sp alc/w 25°C 100% U I K1=3.61 1989KSc (83262)1597  
 In MeOH. In DMF K1=2.50; in DMSO K1=2.22

Mg++ vlt alc/w 25°C 100% C K1=2.26 1987CBd (83263)1598  
 Medium: methanol, 0.10 M Et4NI or Bu4NClO4. Method: polarography.

Mg++ nmr non-aq 25°C 100% U K1=2.33 1985BP a (83264)1599  
 Medium: DMF

\*\*\*\*\*  
 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
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Mg++	sp	alc/w	25°C	100%	U I		K1=3.40	1989KSc (83810)	1600
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In MeOH. In DMF K1=2.37; in DMSO K1=2.06

Mg++	gl	R4N.X	25°C	0.10M	C		K1=1.3	1975ANa (83811)	1601
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Medium: Me4NCl

\*\*\*\*\*  
 C12H26O4S HL SDS CAS 151-21-3 (2522)  
 Dodecyl sulfate; CH3(CH2)11.OSO3H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	sol	oth/un	21°C	?	U		B2=5.0 B(Mg2L4)=6.6 B(Mg3L6)=7.1	1979KBb (83978)	1602
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\*\*\*\*\*  
 C12H26O6 L Pentaglyme CAS 1191-87-3 (2498)  
 2,5,8,11,14,17-Hexaoxaoctadecane; (CH3.O.CH2.CH2.O.CH2.CH2.O.CH2.)2

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

Mg++	con	non-aq	25°C	100%	C H		K1=2.47	1992BSc (83990)	1603
------	-----	--------	------	------	-----	--	---------	-----------------	------

Medium: propylene carbonate. By calorimetry, DH(K1)=-17.2 kJ mol-1,  
 DS(K1)=-11 J K-1 mol-1. By calorimetry, K1=2.57.

\*\*\*\*\*  
 C12H27N3O6P2 H3L CAS 176446-07-4 (8683)  
 1,4,7-Triazacyclononane-N,N'-bis(methylenemethylphosphinic acid)-N"-ethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	KCl	25°C	0.10M	C T H		K1=8.0 B(MgHL)=14.5	1996HSb (84095)	1604
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At 37 C, K1=8.1. By 31P nmr, DH(K1)=11 kJ mol-1; DH(Mg+HL=MgL+H)=62.

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C12H30N3O6P3                      H3L                      (6467)  
1,4,7-Tris(methylenemethylphosphinate)-1,4,7-triazacyclononane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.10M	C			K(MgL+H)=5.2	1996HSa (84270)	1605

Mg++	gl	KCl	25°C	0.10M	C	T	H	K1=6.66 B(MgHL)=12.76	1996HSb (84271)	1606
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Data for 37 C. By 31P nmr, DH(K1)=15 kJ mol<sup>-1</sup>, DS(K1)=178 J K<sup>-1</sup> mol<sup>-1</sup>;  
DH(Mg+HL=MgL+H)=62, DS(Mg+HL=MgL+H)=126.

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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
Mg++	gl	KNO3	25°C	1.0M	U			K1=6.10 K(Mg+HL)=2.9	1988MKa (84277)	1607

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C12H32N4O8P4                      H4L                      (7111)  
1,4,7,10-Tetraazacyclododecane-1,4,7,10-tetrayltetramethylenetetakis(phosphinic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	C			K1=3.50	1995BLa (84388)	1608

\*\*\*\*\*

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
Mg++	gl	R4N.X	25°C	0.10M	M			K1=9.38 B(MgHL)=20.57 B(MgH2L)=30.60 B(MgH3L)= 39.53 B(MgH4L)=46.09	1990DSa (84403)	1609

Medium: Me4NN03. Binuclear complexes also observed

Mg++	gl	KNO3	25°C	1.0M	U			K1=7.3 K(Mg+HL)=6.0 K(Mg+H2L)=3.2 K(Mg+H3L)=3.1 K(Mg+H4L)=2.2	1984KMb (84404)	1610
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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
Mg++	gl	KCl	25°C	0.10M	U		K1=3.75	1986DDa (84493)	1611
*****									
		C13H9NOBrCl	HL				(6173)		
N-(2-Hydroxy-5-bromobenzylidene)-4-chloroaniline; Cl.C6H4.N:CH.C6H3(OH)Br									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	mixed	28°C	75%	U		K1=3.64	1988MNB (84533)	1612
*****									
		C13H9NOS	HL				CAS 3411-95-8	(1683)	
2-(2-Hydroxyphenyl)benzothiazole;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	alc/w	20°C	50%	U		K1=3.1	1959H0a (84549)	1613
*****									
Mg++	gl	diox/w	39°C	50%	U		K1=3.06	1954CFa (84550)	1614
*****									
		C13H9NO2	HL				(3403)		
2-(2'-Hydroxyphenyl)benzoxazole;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	alc/w	20°C	50%	U		K1=5.2	1959H0a (84563)	1615
*****									
Mg++	gl	diox/w	40°C	50%	U		K1=4.96 B2=9.08	1954CFa (84564)	1616
*****									
		C13H9N3O8S3	H3L				CAS 28467-51-8	(898)	
2-(2-Thiazolylazo)chromotropic acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	NaCl04	25°C	0.10M	U			1982PRa (84662)	1617
							K(Mg+H2L=MgL+2H)=-12.53		
*****									
		C13H10NOBr	HL				(6171)		
N-(2-Hydroxy-5-bromobenzylidene)aniline; C6H5.N:CH.C6H3(OH)Br									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	diox/w	28°C	75%	U		K1=3.72	1988MNB (84674)	1618
*****									
		C13H10N2O	HL				CAS 5496-07-1	(3404)	
2-(2'-Hydroxyphenyl)benzimidazole;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++ gl alc/w 20°C 50% U K1=3.5 1959H0a (84825)1619  
\*\*\*\*\*

C13H10N2O4 H2L CAS 62437-12-1 (4013)  
4-(Phenylamino)pyridine-2,6-dicarboxylic acid; C6H5.NH.C5H2N(COOH)2

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

Mg++ gl NaClO4 22°C 0.10M U K1=2.85 1964BBa (84875)1620  
\*\*\*\*\*

C13H10N2O5S H2L CAS 98789-35-6 (5012)  
4-Hydroxy-3-formylazobenzene-4'-sulfonic acid;

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

Mg++ EMF alc/w 25°C 42% U 1972DSc (84920)1621  
K(Mg+HL=MgL+H)=3.19  
K(MgL+HL=MgL2+H)=2.96

Medium: 42% EtOH, 0.2 M NaClO4

\*\*\*\*\*

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  
-----

Mg++ gl KNO3 25°C 0.10M U K1=4.45 B2=7.49 1964MTc (84936)1622  
\*\*\*\*\*

C13H10O3 HL CAS 5910-23-6 (3399)  
Benzoyl-2-furoylmethane; C6H5.CO.CH2.CO.C4H3O

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

Mg++ gl diox/w 30°C 75% U K1=8.37 B2=15.67 1953UFe (84999)1623  
\*\*\*\*\*

C13H10O6 HL CAS 156426-82-3 (8800)  
3-Acetoacetyl-7-methyl-2H,5H-pyrano(4,3-b)pyran-2,5-dione;

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

Mg++ sp non-aq 20°C 100% C 1998FLb (85004)1624  
K(Mg+HL=MgL+H)=3.54  
K(MgL+HL=MgL2+H)=2.80

Method: absorption and fluorescence spectroscopy. Medium: acetonitrile.

\*\*\*\*\*

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  
-----

Mg++ gl alc/w 20°C 50% U K1=3.4 1959H0a (85034)1625  
\*\*\*\*\*

C13H11NO2 HL CAS 1761-56-4 (3408)  
 2-(Salicylideneamino)phenol, Salicylaldehyde-2-hydroxyanil; HO.C6H4.CH:N.C6H4.OH

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

Mg++	gl	alc/w	20°C	50%	U			K1=3.4	1959H0a (85069)	1626
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\*\*\*\*\*

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
-------	-----	--------	------	------	-----	-------	----	----------	-----------	--------

Mg++	sp	KCl	25°C	0.10M	U			K1=3.3	1978TSb (85216)	1627
------	----	-----	------	-------	---	--	--	--------	-----------------	------

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C13H11N3O5S H3L (5019)  
 4-Hydroxy-3-oximinomethylazobenzene-4'-sulfonic acid;

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

Mg++	gl	alc/w	25°C	50%	U			K1=3.40 B2=6.35	1973DSa (85297)	1628
------	----	-------	------	-----	---	--	--	-----------------	-----------------	------

Medium: 42% EtOH, 0.2 M NaClO4

\*\*\*\*\*

C13H12O5 HL CAS 17426-76-5 (3401)  
 O,O-Dimethylpurpurogallin

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

Mg++	gl	diox/w	30°C	50%	U			K1=4.9 B2=8.8	1954BFc (85485)	1629
------	----	--------	------	-----	---	--	--	---------------	-----------------	------

\*\*\*\*\*

C13H13NO HL CAS 24403-51-8 (3410)  
 1,2,3,4-Tetrahydro-9-hydroxyacridine;

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

Mg++	gl	diox/w	20°C	50%	U			K1=3.98 B2=7.54	1954IRa (85491)	1630
------	----	--------	------	-----	---	--	--	-----------------	-----------------	------

Medium: 50% dioxan, 0.3 M NaClO4

\*\*\*\*\*

C13H14NO3P H2L CAS 19316-85-7 (1466)  
 2-Hydroxyphenyl-N-phenylaminomethylphosphinic acid;

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

Mg++	gl	NaClO4	20°C	0.10M	U			K1=4.60	1985SIb (85561)	1631
------	----	--------	------	-------	---	--	--	---------	-----------------	------

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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
-------	-----	--------	------	------	-----	-------	----	----------	-----------	--------

Mg++	gl	NaClO4	20°C	0.10M	U			K1=5.40	1985SIb (85638)	1632
------	----	--------	------	-------	---	--	--	---------	-----------------	------

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*****
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
-----
Mg++       gl  NaClO4 20°C 0.10M U          K1=5.50      1985SIb (85651)1633
*****
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
-----
Mg++       sp  NaNO3  25°C 0.15M U          K1=0         1953KMa (85682)1634
*****
C13H15NO6          H3L          (4999)
2-Benzylnitritotriethanoic acid;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       oth oth/un 25°C 0.10M U          K2=5.44      1962HKa (85733)1635
*****
C13H15NO6          H3L          (4026)
N-(1'-Carboxy-1'-phenylethyl)iminodiethanoic acid;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  KCl    20°C 0.10M U          K1=5.17      1966IMa (85750)1636
*****
C13H15NO6          H3L          (4025)
N-(alpha-Carboxy-4'-methylbenzyl)iminodiethanoic acid;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  KCl    20°C 0.10M U          K1=4.74      1966IMb (85756)1637
*****
C13H15NO7          H3L          CAS 50444-50-3 (4027)
N-(alpha-Carboxy-4'-methoxybenzyl)iminodiethanoic acid;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  KCl    20°C 0.10M U          K1=4.75      1966IMb (85765)1638
*****
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
-----
Mg++       gl  NaClO4 20°C 0.10M U          K1=4.70      1985SIa (85778)1639
*****

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2-Hydroxyphenyl-(N-3-pyridylmethylamino)methylphosphinic acid;

Mg++      gl    NaCl04 20°C 0.10M U      K1=4.60      1985SIa (85791)1640

2-Hydroxyphenyl-(N-4-pyridylmethylamino)methylphosphinic acid;

Mg++      gl    NaCl04 20°C 0.10M U      K1=4.72      1985SIa (85804)1641

2-Hydroxyphenyl-(N-2-pyridylmethylamino)methylphosphonic acid;

Mg++      gl    NaCl04 20°C 0.10M U      K1=6.00      1985SIa (85817)1642

2-Hydroxyphenyl-(N-3-pyridylmethylamino)methylphosphonic acid;

Mg++ g1 NaCl04 20°C 0.10M U K1=6.00 1985SIa (85830)1643

2-Hydroxyphenyl-(N-4-pyridylmethylamino)methylphosphonic acid;

Mg++ gl NaClO4 20°C 0.10M U K1=6.05 1985SIa (85843)1644

N-(4-Methoxyphenethylimino)diethanoic acid;  $\text{CH}_3\text{O} \cdot \text{C}_6\text{H}_4 \cdot \text{CH}_2\text{CH}_2\text{N}(\text{CH}_2\text{COOH})_2$

Mg++      g1   KCl      20°C 0.10M U      K1=3.25   B2=4.25   1971KT1 (85979)1645  
K(Mg+HL)=1.54

N-(2-Hydroxy-1-(hydroxybenzyl)-iminodiethanoic acid;

$$\text{HO} \cdot \text{CH}_2 \cdot \text{CH}(\text{CH}(\text{OH})(\text{C}_6\text{H}_5)) \cdot \text{N}(\text{CH}_2 \cdot \text{COOH})_2$$

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaClO4	25°C	1.0M	C		K1=2.35	1981ASb (85991)	1646
*****									
C13H18N2O4		H2L					CAS 13933-94-3	(4028)	
Pyridoxylidenevaline;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	oth/un	25°C	0.10M	U		K1=<3.5	1961DRa (86042)	1647
*****									
C13H20N04P		H3L					(1471)		
2-Hydroxyphenyl-N-(cyclohexylamino)methylphosphonic acid;									
C6H4(OH)CH(PO3H2).NH.C6H11									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaClO4	20°C	0.10M	U		K1=6.05	1985SIb (86088)	1648
*****									
C13H20N2O8		H4L					CAS 22991-70-4	(3413)	
trans-1,2-Cyclopentane-iminodiethanoic acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	oth/un	20°C	0.10M	U		K1=9.05	1960KGa (86109)	1649
*****									
Mg++	gl	KCl	20°C	0.10M	U		K1=9.07	1959KRa (86110)	1650
K(Mg+HL)=4.32									
*****									
C13H20O8S4		H4L					CAS 51865-20-4	(1139)	
(Pentanediyldenetetrathio)tetra-ethanoic acid; ((HOOCH2S)2CHCH2)2.CH2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaClO4	25°C	0.10M	U		K1=3.29	1975JBa (86155)	1651
*****									
C13H22N2O8		H4L					CAS 1798-14-7	(921)	
(Pentamethylenedinitrilo)tetraethanoic acid; ((HOOCH2)2N.CH2.CH2)2CH2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	20°C	0.10M	U		K1=5.2	1964ANa (86187)	1652
K(Mg+HL)=3.6									
*****									
Mg++	EMF	KCl	20°C	0.10M	C			1948SAa (86188)	1653
K(Mg+HL)=3.63									

Method: H electrode

\*\*\*\*\*

C13H22N2O8		H4L					CAS 1198-14-7	(5004)	
1,2-Diaminopentane-N,N,N',N'-tetraethanoic acid; (HOOCH2)2NCH2CH(C3H7)N(CH2COOH)2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	20°C	0.10M	U		K1=10.15	1969NDa (86221)	1654
*****									
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
Mg++	gl	KNO3	20°C	0.10M	U		K1=8.27 K(MgL+H)=2.92	1981NSc (86248)	1655
*****									
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
Mg++	gl	KNO3	20°C	0.10M	U		K1=10.30	1969NDa (86276)	1656
*****									
C13H23N3O8		H4L					(3414)		
N-Methyl-2,2'-iminobis(ethyliminodiethanoic acid);									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	EMF	KCl	20°C	0.10M	C		K1=7.31 K(Mg+HL)=2.92	1957SSa (86394)	1657
*****									
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
Mg++	gl	R4N.X	25°C	0.10M	C		K1=2.38 *K(MgL)=-10.9	1998CCd (86408)	1658
Medium: 0.10 M Me4NNO3.									
Mg++	cal	NaClO4	25°C	0.10M	U	H	K1=4.2	1985EHa (86409)	1659
DH(K1)=6.6 kJ mol <sup>-1</sup> , DS=102.0 J K <sup>-1</sup> mol <sup>-1</sup>									
*****									
C13H34N4O12P4		H8L					(6686)		
1,4,7,11-Tetraazacyclotridecane-N,N',N'',N'''-tetramethylenephosphonic acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	R4N.X	25°C	0.10M	M		B(MgHL)=19.34 B(MgH2L)=30.42 B(MgH3L)=38.86	1990DSa (86584)	1660

$$B(\text{MgH4L})=45.43$$

Medium: Me4NNO3. Binuclear complex also observed

\*\*\*\*\*

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
Mg++	gl	KCl	25°C	0.1M	U		K1=7.17 B2=13.52	2004ACa (86609)	1661

\*\*\*\*\*

C14H8O4 H2L Quinizarin CAS 81-64-1 (1060)  
1,4-Dihydroxyanthraquinone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	alc/w	20°C	50%	U			1982Kmd (86663)	1662

$K(\text{Mg+HL})=4.1$

Medium: 50% v/v EtOH/H2O

\*\*\*\*\*

C14H8O5 H3L Purpurine CAS 81-54-9 (8759)  
1,2,4-Trihydroxy-9,10-anthraquinone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	alc/w	20°C	50%	C			2001ISb (86677)	1663

$K(\text{Mg+H2L=MgHL+H})=-6.30$   
 $*K(\text{MgHL})=-9.82$   
 $K(\text{Mg+H2L=MgH2L})=3.97$   
 $K(\text{Mg+HL+OH})=8.15$

Medium: 50% v/v EtOH/H2O, 0.10 M NaClO4.  $K(\text{MgHL(OH)+Mg=Mg2L(OH)+H})=-11.59$ .

$K(2\text{Mg+L+OH})=10.55$ .

\*\*\*\*\*

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
Mg++	gl	diox/w	30°C	75%	U		K1=6.36 B2=11.63	1964Cmb (86787)	1664

\*\*\*\*\*

C14H10N2O6 H4L CAS 15722-48-2 (2938)  
3-3'-Azo-bis(6-hydroxybenzoic acid);  $\text{HOOC.C6H3(OH).N:N.(HO)C6H3.COOH}$

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	NaCl	25°C	0.50M	U			1990DOa (86907)	1665

$K(\text{Mg+H2L=MgHL+H})=-6.97$   
 $K(2\text{Mg+H2L=Mg2L+2H})=-14.7$

\*\*\*\*\*

C14H11N5O8S2 H5L CAS 1105-53-9 (5084)  
1,5-Bis(2-hydroxy-5-sulfohenyl)-3-cyanoformazan;



Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	NaNO3	20°C	0.10M	U			K1=5.29	1971SEa (87016)	1666
*****										
C14H12NOBr		HL						CAS 20772-74-1	(6172)	
N-(2-Hydroxy-5-bromobenzylidene)-4-methylaniline; HO(Br)C6H3.CH:N.C6H4.CH3										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	mixed	28°C	75%	U			K1=4.32	1988MNB (87041)	1667
*****										
C14H12N2O3		H2L						CAS 4870-46-6	(3432)	
2-Hydroxy-5-methyl-2'-carboxy-azobenzene; HO.C6H3(CH3).N:N.C6H4.COOH										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	sp	KCl	rt	0.10M	U				1960DEa (87209)	1668
K1eff=3.68 (pH 10)										
Mg++	gl	diox/w	30°C	75%	U				1957SFb (87210)	1669
K(Mg+H2L=MgL+2H)=-12.6										
*****										
C14H13NO2		HL						CAS 3290-98-0	(3434)	
N-Salicylidene-2-methoxyaniline; HO.C6H4.CH:N.C6H4.OCH3										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	alc/w	20°C	50%	U			K1=3.1	1959HOa (87520)	1670
*****										
C14H14N2O10		H5L						CAS 41379-95-7	(5070)	
2-Carboxymethylamino-5-(bis(carboxymethyl)amino)-1,4-dibenzoic acid;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	U			K1=5.25	1973UWb (87670)	1671
*****										
C14H15N2O8Cl		H4L						(1903)		
4-Chloro-1,2-diaminobenzene-N,N,N',N'-tetraethanoic acid;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	NaClO4	25°C	0.50M	C			K1=6.09	1995CDa (87744)	1672
Mg++	gl	KCl	25°C	0.10M	U			K1=6.16	1990MDa (87745)	1673
B(MgHL)=9.25										
*****										
C14H16NO3P		H2L						CAS 25881-35-0	(1469)	
Phenyl-N-(benzylamino)methylphosphonic acid; C6H5.CH(PO3H2).NH.CH2.C6H5										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaClO4	20°C	0.10M	U		K1=6.00	1985SIb (87807)	1674
*****									
C14H16N04P		H3L					CAS 61146-25-6	(1470)	
2-Hydroxyphenyl-N-(benzylamino)methylphosphonic acid; C6H4(OH)CH(PO3H2).NH.CH2.C6H5									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaClO4	20°C	0.10M	U		K1=6.00	1985SIb (87820)	1675
*****									
C14H16N208		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
Mg++	gl	NaClO4	25°C	0.50M	C		K1=6.40	1995CDa (87939)	1676
Mg++	gl	NaClO4	25°C	1.00M	C	H	K1=6.48	1992NSa (87940)	1677
By calorimetry: DH(K1)=34.3 kJ mol-1, DS=239 J K-1 mol-1									
Mg++	gl	KCl	30°C	0.10M	U		K1=7.1	1963GHa (87941)	1678
K(Mg+HL)=2.6									
*****									
C14H16N208		H4L					(6108)		
1,3-Phenylenediamine-N,N'-disuccinic acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl	25°C	0.50M	C		K1=1.298	1989FRa (87990)	1679
B(MgHL)=6.436									
B(MgH2L)=10.533									
*****									
C14H16N208		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
Mg++	gl	NaCl	25°C	0.50M	C		K1=1.23	1984RFe (88011)	1680
*****									
C14H17N204P		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
Mg++	gl	NaClO4	20°C	0.10M	U		K1=6.10	1985SIb (88040)	1681
*****									
C14H2005		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
Mg++	con	mixed	25°C	20%	C			K1=4.41	2003SIa (88235)	1682
Medium: 20% w/w propylene carbonate/ethylene carbonate.										
Mg++	sp	non-aq	25°C	100%	U			K1=10.78	2000EGa (88236)	1683
Method: fluorescence emission spectroscopy. Medium: acetonitrile.										
Mg++	nmr	non-aq	27°C	100%	C			K1=4.48	2000SMg (88237)	1684
Medium: acetonitrile. Method: competitive 7Li nmr technique.										
Mg++	sp	non-aq	rt	100%	U			K1=>7	1992BFa (88238)	1685
Medium: CH3CN										
Mg++	vlt	non-aq	25°C	100%	C			K1=2.46	1991SSb (88239)	1686
Method: competitive complexation with Tl+; use of Tl(Hg)/Tl couple. Medium: acetonitrile, 0.05 M Et4NClO4.										
Mg++	sp	alc/w	25°C	100%	U	I		K1=2.27	1989KSc (88240)	1687
In MeOH. In DMF, K1 <2; in DMSO, K1<2										
*****										
C14H22N2O8 H4L cis-1,2-CDTA CAS 92761-75-6 (2846)										
cis-1,2-Diaminocyclohexane-N,N,N',N'-tetraethanoic acid;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KCl	20°C	0.10M	U			K1=8.39 K(Mg+HL)=2.12	1959KRa (88428)	1688
*****										
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
Mg++	gl	alc/w	25°C	99%	U			K1=10.2	1972RBa (88565)	1689
Medium: 99% MeOH, 0.1 M NaClO4										
Mg++	cal	KN03	25°C	0.10M	U	H			1965WHa (88566)	1690
DH(K1)=6.7 kJ mol-1, DS=217 J K-1 mol-1										
Mg++	cal	KN03	20°C	0.10M	U	T H			1963ANb (88567)	1691
DH(K1)=15.9 kJ mol-1, DS=264 J K-1 mol-1										
Mg++	cal	KN03	20°C	0.10M	U	H		K1=10.97	1963ANf (88568)	1692
DH(K1)=15.9 kJ mol-1, DS=264 J K-1 mol-1										
Mg++	gl	KN03	25°C	0.10M	U	T H		K1=10.41	1960BMb (88569)	1693
K1=10.45(0 C), 10.31(42.4 C). DH(K1)=-6.3 kJ mol-1, DS=180 J K-1 mol-1										

Mg++ EMF KCl 20°C 0.10M C K1=10.32 1954SGa (88570)1694  
Method: H electrode

\*\*\*\*\*

C14H22N2O8 H4L trans-1,3-CDTA CAS 92681-24-8 (2849)  
trans-1,3-Diaminocyclohexane-N,N,N',N'-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	EMF	KCl	20°C	0.10M	C		K1=4.64 K(Mg+HL)=3.14 K(Mg+MgL)=2.42	1949SAa (88832)	1695

Method: H electrode  
\*\*\*\*\*

C14H22N2O8 H4L trans-1,4-CDTA CAS 92681-26-0 (2843)  
trans-1,4-Diaminocyclohexane-N,N,N',N'-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	EMF	KCl	20°C	0.10M	C		K1=4.30 K(Mg+HL)=3.04 K(Mg+MgL)=2.32	1949SAa (88848)	1696

Method: H electrode  
\*\*\*\*\*

C14H22O5 H2L CAS 85785-29-1 (2250)  
Di(hepta-4,6-dione)ether, (CH3.CO.CH2.CO.(CH2)3)2O

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	diox/w	24°C	50%	U		K1=7.1	1979ACa (88991)	1697

\*\*\*\*\*

C14H22O8S4 H4L (1160)  
Ethane-tetramercaptopropanoic acid; (CH.(S.CH2.CH2.COOH)2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl04	25°C	0.10M	U		K1=1.92	1975PJa (88999)	1698

\*\*\*\*\*

C14H23N3O10 H5L DTPA CAS 67-43-6 (238)  
Diethylenetriamine-pentaethanoic acid; HOOCH2.N(CH2.CH2.N(CH2.COOH)2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KN03	25°C	0.1M	C	TI R	K1=9.3	2005AAa (89137)	1699

IUPAC recommended value. Provisional value, 37 C, 0.15 NaCl: K1=8.56,  
K(MgL+H)=6.98, K(MgHL+H)=4.64, K(MgH2L+H)=3.74

Mg++	gl	NaCl	37°C	0.15M	C		K1=8.56 B2=10.63 B(MgHL)=15.53 B(MgH2L)=20.20 B(MgH3L)=23.94	1984DMb (89138)	1700
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Mg++ cal KNO3 27°C 0.10M U H 1968CLd (89139)1701  
DH(K1)=10.9 kJ mol-1, DS=209 J K-1 mol-1  
-----

Mg++ gl KNO3 25°C 0.10M U K1=9.3 1968WRa (89140)1702  
-----

Mg++ cal KNO3 20°C 0.10M U T H 1965ANa (89141)1703  
DH(K1)=12.5 kJ mol-1, DS=219 J K-1 mol-1  
-----

Mg++ cal KNO3 25°C 0.10M U H 1965WHa (89142)1704  
DH(K1)=15.0 kJ mol-1, DS=226 J K-1 mol-1  
-----

Mg++ gl KNO3 25°C 0.10M C K1=9.3 1960WAa (89143)1705  
K(MgL+H)=6.9  
-----

\*\*\*\*\*  
C14H24N2O7 H3L (3440)  
N-(2-Hydroxycyclohexyl)ethylenediamine-N,N',N'-triethanoic acid;  
-----

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

Mg++ gl KCl 20°C 0.10M U K1=4.35 1959KRa (89491)1706  
K(Mg+HL)=1.63  
-----

\*\*\*\*\*  
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  
-----

Mg++ gl KNO3 20°C 0.10M U K1=7.83 1969NDc (89503)1707  
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\*\*\*\*\*  
C14H24N2O8 H4L HMDTA CAS 1633-00-7 (920)  
1,6-Diaminohexane-N,N,N',N'-tetraethanoic acid; ((HOOCH2)2N.CH2.CH2.CH2)2  
-----

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

Mg++ gl KNO3 25°C 0.10M U K1=4.21 1969GKb (89563)1708  
K(Mg+HL)=3.36  
B(Mg2L)=2.30  
-----

Mg++ gl KNO3 20°C 0.10M U K1=4.8 1964ANa (89564)1709  
K(Mg+HL)=3.66  
-----

\*\*\*\*\*  
C14H24N2O8 H4L CAS 1633-00-7 (5076)  
4-Methyl-1,2-diaminopentane-N,N,N',N'-tetraethanoic acid;  
(HOOCCH2)2NCH2CH(N(CH2COOH)2CH2CH(CH3)2  
-----

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Mg++ gl KNO3 20°C 0.10M U K1=10.16 1969NDa (89627)1710  
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C14H24N2O8 H4L EDTP (2936)  
Diaminoethane-N,N,N',N'-tetrapropionic acid; (HOOCH<sub>2</sub>CH<sub>2</sub>)<sub>2</sub>N.CH<sub>2</sub>CH<sub>2</sub>.N(CH<sub>2</sub>CH<sub>2</sub>.COOH)<sub>2</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	30°C	0.10M	U		K1=1.8	1953CCb (89676)	1711

C14H24N2O9 H4L CAS 87720-52-3 (1593)  
2,2'-Oxybis(propyliminodiethanoic acid)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	20°C	0.10M	U		K1=4.8 K(Mg+HL)=3.92	1961ISa (89706)	1712

Mg++	gl	KCl	20°C	0.10M	U		K1=7.92 K(Mg+HL)=4.51	1961KGa (89707)	1713
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Mg++	gl	oth/un	25°C	0.10M	U		K1=6.9 K(Mg+HL)=4.5	1953KPa (89708)	1714
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C14H24N2O9 H4L BPETA CAS 87720-52-3 (5077)  
Bis-(3-di(carboxymethyl)aminopropyl)ether;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	20°C	0.10M	U		K1=4.8 K(Mg+HL)=3.92	1961ISa (89723)	1715

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
Mg++	gl	KCl	20°C	0.10M	C		K1=5.30 K(Mg+HL)=3.47	1985SMg (89827)	1716

Mg++	gl	KNO3	25°C	0.10M	U		K1=4.72 K(MgL+H)=9.5 K(MgL+2H)=7.2	1982JGa (89828)	1717
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Mg++	gl	NaCl	25°C	0.70M	U		K1=5.40	1974JAb (89829)	1718
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Medium: seawater

Mg++	gl	alc/w	25°C	99%	U		K1=6.3	1972RBa (89830)	1719
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Medium: 99% MeOH, 0.1 M NaCl04

Mg++	gl	KNO3	25°C	0.10M	U		K1=5.2	1968WRa (89831)	1720
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Mg++	cal	KCl	25°C	0.10M	U	H		1965BBe (89832)	1721
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DH(K1)=23.0 kJ mol<sup>-1</sup>, DS=178 J K<sup>-1</sup> mol<sup>-1</sup>

Mg++ cal KNO3 25°C 0.10M U H 1965WHa (89833)1722  
DH(K1)=18.4 kJ mol<sup>-1</sup>, DS=167 J K<sup>-1</sup> mol<sup>-1</sup>

Mg++ gl KNO3 20°C 0.10M U H K1=5.2 1964ANa (89834)1723  
K(Mg+HL)=3.4  
By calorimetry: DH(K1)=21.7 kJ mol<sup>-1</sup>, DS=174 J K<sup>-1</sup> mol<sup>-1</sup>

Mg++ EMF KCl 20°C 0.10M C K1=5.21 1964PCa (89835)1724  
K(Mg+HL)=3.37

Method: H electrode

Mg++ gl oth/un 25°C 0.10M U K1=5.4 1957SRa (89836)1725  
\*\*\*\*\*  
C14H24N2O10 H4L (2655)  
N,N'-Bis(2-hydroxyethane)-N,N'-ethanediaminedibutanedioic acid;

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

Mg++ gl KNO3 25°C 0.1M U K1=5.85 1985MGb (89975)1726  
\*\*\*\*\*  
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

Mg++ gl R4N.X 25°C 0.10M U K1=10.25 1988ADa (90078)1727  
K(Mg+HL)=4.31  
\*\*\*\*\*  
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

Mg++ cal R4N.X 25°C 0.10M U H 1989DSa (90171)1728  
DH(MgL)=15.9 kJ mol<sup>-1</sup>; DS=197.

Mg++ gl R4N.X 25°C 0.10M C K1=7.534 1987DDb (90172)1729

Mg++ gl R4N.X 25°C 0.10M M K1=7.42 1986COb (90173)1730  
\*\*\*\*\*  
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

Mg++ gl R4N.X 25°C 0.10M M K1=9.79 1996CHc (90243)1731  
Medium: 0.1 M Me4NCl.

\*\*\*\*\*

Hexanoic acid bis(3-hydroxycarbamoyl-propyl)amide;  
 $\text{HONHCO}(\text{CH}_2)_3\text{NHCO}(\text{CH}_2)_4\text{CONH}(\text{CH}_2)_3\text{COHNOH}$

Mg++      gl   KCl    25°C 0.20M C                  K1=4.11                  1999FEa (90263)1732  
B(MgHL)=12.51  
B(MgH-1L)=-7.65

Mg++ gl R4N.X 25°C 0.05M C I K1=2.5 1975LSc (90344)1733  
In 95% MeOH, 0.05 M Me4NBr: K1=4.0

Mg++            gl   alc/w   25°C   95%   C            K1=3.18            2004KVa (90571)1734  
Medium: 95% MeOH/H2O, 0.01 M Et4NClO4.

Mg++            gl   R4N.X   25°C 0.10M C                      K1=2                      1995LLa (90625)1735  
Medium: Et4NCI04

Mg++ con non-aq 25°C 100% C H K1=2.11 1992BSc (90684)1736  
Medium: propylene carbonate. By calorimetry, DH(K1)=-22.8 kJ mol<sup>-1</sup>,  
DS(K1)=-36.2 J K<sup>-1</sup> mol<sup>-1</sup>.

Mg++      gl    KCl      25°C 0.10M C      K1=<3      1998BRa (90840)1737



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
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Mg++	gl	R4N.X	25°C	0.10M	M				1990DSa (90869)	1738
								B(MgHL)=19.07		
								B(MgH2L)=30.35		
								B(MgH3L)=38.48		
								B(MgH4L)=45.43		

Medium: Me4NNO3

\*\*\*\*\*

C15H11NO2                      HL                      CAS 55022-23-6 (4061)  
2-(6'-Methyl-2'-pyridyl)indan-1,3-dione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	gl	diox/w	30°C	75%	U			K1=6.86    B2=13.30	1964Cmb (91061)	1739
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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
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Mg++	sp	NaCl04	25°C	0.20M	U	I		K1=0.844	1983EBa (91150)	1740
------	----	--------	------	-------	---	---	--	----------	-----------------	------

Mg++	ISE	oth/un	25°C	0.10M	C	I		K1=0.77	1980ELb (91151)	1741
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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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Mg++	gl	NaCl04	25°C	0.10M	C	TIH		K1=5.75    B2=10.20	1985SMa (91303)	1742
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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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Mg++	gl	diox/w	25°C	75%	U			B2=6.1	1968MSa (91486)	1743
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Medium: 75% dioxan, 0.05 M NaCl04

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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
-------	-----	--------	------	------	-----	-------	----	----------	-----------	--------

Mg++	gl	diox/w	20°C	17%	C			K1=7.86    B2=14.83	1976JWa (91535)	1744
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Mg++ gl diox/w 30°C 75% U K1=8.54 B2=16.21 1953UFe (91536)1745  
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C15H12O3 H2L CAS 1469-94-9 (3445)  
2-Hydroxydibenzoylmethane; HO.C6H4.CO.CH2.CO.C6H5

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Mg++ gl diox/w 30°C 75% U K1=8.14 B2=15.14 1955H0a (91604)1746  
\*\*\*\*\*

C15H14NOCl HL CAS 268214-29-5 (8398)  
4-Chloro-3,5-dimethyl-2-[(phenylimino)methyl]phenol;

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

Mg++ gl diox/w 30°C 75% M K1=4.61 2000ANa (91687)1747  
Medium: 75% v/v dioxan/H2O, 0.10 M NaCl04. Data for an extensive series of  
4'-substituted phenylimino derivatives.

\*\*\*\*\*

C15H14N2O5S HL (9232)  
3-(5-Sulphonylnaphthylazo)penta-2,4-dione;

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

Mg++ gl KCl 25°C 0.1M U H K1=6.70 2004ACb (91734)1748  
for 35 C K1=6.60; for 45 C K1=6.46

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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  
-----

Mg++ gl diox/w 30°C 75% U K1=3.03 1970KDa (91779)1749  
Medium: 75% dioxan, 0.1 M NaCl04

\*\*\*\*\*

C15H17N2O8Cl H3L CAS 308124-47-2 (3563)  
N,N-Bis(carboxymethyl)-2-(carboxymethoxy)-5-(2-chloro-ethanamido)benzylamine;

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

Mg++ sp KCl 22°C 0.14M C 2000RGa (91971)1750  
K1eff=2.11

Medium: KCl/NaCl/HEPES/TRIS at pH 7.2. Method: fluorescence emission.  
Also data for the 2-(2-chloroethanamido)-5-(carboxymethoxy)-derivatives

\*\*\*\*\*

C15H18N2O8 H4L (1934)  
1-Methyl-2,5-diaminobenzene-N,N,N',N'-tetraethanoic acid;

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

Mg++ oth oth/un 25°C 0.10M U K1=3.4 1969RMa (92061)1751

\*\*\*\*\*

C15H18N2O8                      H4L                      CAS 101455-18-9 (1902)  
1-Methyl-3,4-diaminobenzene-N,N,N',N'-tetraethanoic acid;

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

Mg++              gl    NaCl04    25°C 0.50M C              K1=6.80              1995CDa (92081)1752

\*\*\*\*\*

C15H18N2O8                      H4L                      (6114)  
2,5-Toluenediamine-N,N'-disuccinic acid;

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

Mg++              gl    NaCl        25°C 0.50M C              K1=0.934              1989FRa (92093)1753

\*\*\*\*\*

C15H19N3O8                      H4L                      CAS 53793-56-9 (8631)  
N,N'-[2,6-Pyridinediylbis(methylene)]bis[N-(carboxymethyl)]glycine;

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

Mg++              gl    KCl        25°C 0.10M U              K1=9.5              1984VOB (92130)1754

For the 4-methoxy derivative: K1=7.3; for the 4-dimethylamino derivative,  
K1=7.4.

\*\*\*\*\*

C15H20N2O6                      H3L        BEDTA                      CAS 65311-06-0 (2944)  
N-Benzylldiaminoethane-N,N',N'-triethanoic acid;

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

Mg++              gl    KCl        25°C 0.10M U              K1=6.72              2003SVa (92146)1755

K(Mg+HL)=1.79

\*\*\*\*\*

C15H22N4O4                      H2L                      (7082)  
3,6,9,15-Tetraazabicyclo[9.3.1]pentadeca-1(15),11,13-triene-3,9-diethanoic acid;

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

Mg++              gl    KCl        25°C 0.10M C              K1=8.4              1995KHa (92245)1756

\*\*\*\*\*

C15H23N3O12                      H6L                      CAS 21979-64-6 (4069)  
1,2,3-Tris(N,N-bis(carboxymethyl)amino)propane;

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

Mg++              gl    KNO3        25°C 0.10M U              K1=9.21              1968MMb (92318)1757

K(Mg+HL)=6.46

K(Mg+H2L)=2.8

\*\*\*\*\*

C15H24O8S4                      H4L                      CAS 53480-91-4 (1161)  
Propane-1,1,3,3-tetramercaptopropanoic acid; CH2(CH(S.CH2.CH2.COOH)2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl04	25°C	0.10M	U		K1=2.20	1975PJa (92352)	1758
*****									
C15H27N3O6		H3L					(6514)		
1,5,9-Triazacyclododecane-N,N',N''-triethanoic acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	R4N.X	25°C	0.10M	M		K1=7.1	1990CBc (92464)	1759
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
Mg++	gl	NaCl	25°C	0.15M	U		K1=<2	1995BGa (92494)	1760
*****									
C15H30N2O3		L					CAS 72640-82-5 (6040)		
4,7,13-Trioxa-1,10-diazabicyclo[8.5.5]eicosane;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	R4N.X	25°C	0.10M	C	I	K1=2.3	1991DLa (92516)	1761
In 95% v/v MeOH/H2O: K1=3.25									
*****									
C15H36N3O9P3		H3L					(6749)		
1,4,7-Triazacyclononane-N,N'N''-tris(methylenephosphonate monoethylester)									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	R4N.X	25°C	0.10M	C		K1=6.2	1992LRa (92610)	1762
*****									
C15H36N6		L					CAS 82261-26-5 (587)		
15-(4-Aminobutyl)-1,4,7,10,13-pentazacyclohexadecane;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl04	25°C	0.10M	U		K1=2.5	1982FKa (92622)	1763
*****									
C16H9N2OBr3		HL					CAS 84317-74-8 (5169)		
1-(2,4,6-Tribromophenylazo)-2-hydroxynaphthalene;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	mixed	25°C	75%	U		K1=5.72	1972MCb (92646)	1764
Medium: 75% acetone, 0.1 M KNO3									
*****									

C16H11N2OBr HL CAS 7150-24-5 (5172)  
1-(4-Bromophenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	mixed	25°C	75%	U		K1=6.54	1972MCb (92696)	1765
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Medium: 75% acetone, 0.1 M KNO3

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C16H11N2OCl HL CAS 24390-65-6 (5170)  
1-(2-Chlorophenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	mixed	25°C	75%	U		K1=6.03	1972MCb (92711)	1766
------	----	-------	------	-----	---	--	---------	-----------------	------

Medium: 75% acetone, 0.1 M KNO3

\*\*\*\*\*  
C16H11N2OCl HL CAS 10149-93-6 (5171)  
1-(4-Chlorophenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	mixed	25°C	75%	U		K1=6.42	1972MCb (92726)	1767
------	----	-------	------	-----	---	--	---------	-----------------	------

Medium: 75% acetone, 0.1 M KNO3

\*\*\*\*\*  
C16H11N2OI HL CAS 25023-35-2 (5173)  
1-(4-Iodophenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	mixed	25°C	75%	U		K1=6.73	1972MCb (92741)	1768
------	----	-------	------	-----	---	--	---------	-----------------	------

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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Mg++	gl	diox/w	30°C	75%	U		K1=11.05 K(Mg+H2L=MgL+2H)=-12.9	1957SFb (92758)	1769
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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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Mg++	gl	mixed	25°C	75%	U		K1=3.07	1972MCb (92795)	1770
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Medium: 75% acetone, 0.1 M KNO3

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C16H11N3O3 HL CAS 6410-46-1 (5152)  
1-(4-Nitrophenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	mixed	25°C	75%	U			K1=3.88	1972MCb (92810)	1771
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
Mg++	gl	diox/w	30°C	75%	U			K1=2.79	1973CSb (92824)	1772
Medium: 75% dioxan, 0.1 M NaClO4										
*****										
C16H11N3O4		H2L						CAS 14847-54-2	(3461)	
1-(2-Hydroxy-5-nitrophenylazo)-2-hydroxynaphthalene;										
-----										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	diox/w	30°C	75%	U			K1=10.34	1957SFb (92844)	1773
K(Mg+H2L=MgHL+2H)=-10.9										
*****										
C16H11N3O10S2		H4L		Chromotrope 2B				CAS 548-80-1	(896)	
2-((4-Nitrophenyl)azo)chromotropic acid;										
-----										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	sp	NaClO4	25°C	0.10M	U				1982PRa (92860)	1774
K(Mg+H2L=MgHL+H)=-5.27										
*****										
C16H12N2O		HL						CAS 842-07-9	(5156)	
1-Phenylazo-2-hydroxynaphthalene;										
-----										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	mixed	25°C	75%	U			K1=7.29	1972MCb (92916)	1775
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
Mg++	gl	mixed	25°C	75%	U				1972MCb (92947)	1776
K(Mg+HL)=7.26										
Medium: 75% acetone, 0.1 M KNO3										
-----										
Mg++	sp	KCl	rt	0.10M	U				1960DEa (92948)	1777
K1eff=4.59 (pH 10)										

Mg++ gl diox/w 30°C 75% U K1=10.93 1957SFb (92949)1778  
K(Mg+H2L=MgL+2H)=-13.7

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C16H12N2O2 H2L CAS 14934-27-1 (5157)

1-(4-Hydroxyphenylazo)-2-hydroxynaphthalene;

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

Mg++ gl mixed 25°C 75% U 1972MCb (92968)1779

K(Mg+HL)=7.02

Medium: 75% acetone, 0.1 M KNO3

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C16H12N2O4S H2L CAS 13964-82-4 (3475)

1-(4-Sulfofphenylazo)-2-hydroxynaphthalene;

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

Mg++ gl mixed 25°C 75% U K1=3.52 1972MCb (92995)1780

Medium: 75% acetone, 0.1 M KNO3

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C16H12N2O5S H3L SolochromeVio R CAS 94205-83-1 (4093)

1-(2'-Hydroxy-5'-sulfofphenylazo)-2-naphthol;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Mg++ sp oth/un 25°C 0.0 U K1=8.6 B2=13.6 1962CRa (93020)1781

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C16H12N2O8S2 H4L Chromotrope 2R CAS 4197-07-3 (2604)

2-(Benzeneazo)-chromotropic acid, Acid Red 29

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

Mg++ gl KNO3 25°C 0.10M U 1971KMb (93057)1782

K(Mg+HL)=3.64

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Mg++ gl KNO3 25°C 0.10M U 1968NMb (93058)1783

K(Mg+HL)=3.64

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C16H12N2O9S2 H5L CAS 26197-92-2 (4094)

2-(2'-Hydroxyphenylazo)chromotropic acid;

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

Mg++ gl KNO3 25°C 0.10M U 1968NMb (93074)1784

K(Mg+HL)=6.15

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C16H12N2O11S3 H5L (4095)

2-(2'-Sulphophenylazo)chromotropic acid;

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

Mg++      gl   KNO3   25°C 0.10M U      1968NMb (93081)1785  
K(Mg+HL)=3.58

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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C16H13N2OCl                      HL                      CAS 36458-49-8 (5181)  
2-(4-Chlorophenylaminomethyl)-8-hydroxyquinoline;

Mg++            gl   diox/w 25°C 50% U            K1=4.5            1972HUb (93167)1787  
Medium: 50% v/v dioxan, 0.1 M KCl

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

Mg++ gl oth/un 30°C ? U K1=5.9 1964PCa (93183)1789

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

C16H13N2O10PS2                      H5L                      (5205)  
1-(2-Phosphonophenylazo)-2-hydroxynaphthalene-3,6-disulfonic acid;

Mg++      g1    KNO3    25°C 0.10M U      K1=4.83      1971KMa (93229)1791

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K1eff-1 50 (pH 10)

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$$K(\text{Mg+HI})=4.52$$

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C16H14N4O2                      H21                      (3467)

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$$K(\text{Mg}+\text{H}2\text{I}=\text{MgI}+\text{H})=-12.8$$

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C16H14N4O4S	HI	(5183)
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C16H14N4O4S	HI	(5184)
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2-Methoxydibenzoylmethane; CH3.O.C6H4.CO.CH2.CO.C6H5

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

Mg++	gl	diox/w	30°C	75%	U			K1=8.71 B2=15.83	1955H0a (93550)	1800
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C16H15N07			H4L					(4082)		
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N-(3-Carboxy-2-hydroxynaphthylmethyl)iminodiethanoic acid;

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

Mg++	gl	KCl	25°C	0.10M	U			K1=9.1	1975TRb (93629)	1801
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C16H16N2O6S2			HL	Cephalothin				CAS 153-61-7	(9104)	
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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
-------	-----	--------	------	------	-----	-------	----	----------	-----------	--------

Mg++	gl	NaCl04	25°C	0.10M	C			K1=5.070 B2= 8.15	2001SGe (93711)	1802
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C16H18O8S4			H4L					CAS 51865-21-5	(239)	
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1,2-Dimethylbenzene-tetrathioethanoic acid; C6H4(CH(S.CH2.COOH)2)2

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

Mg++	EMF	NaCl04	25°C	0.10M	U			K1=3.78	1975JBa (93886)	1803
------	-----	--------	------	-------	---	--	--	---------	-----------------	------

K(Mg+HL)=3.45

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C16H20N2O8			H4L					CAS 6411-02-5	(1919)	
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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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Mg++	gl	KNO3	20°C	0.10M	U			K1=9.40	1989SLa (94028)	1804
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Mg++	gl	KNO3	20°C	0.10M	U			K1=9.40	1969NDb (94029)	1805
------	----	------	------	-------	---	--	--	---------	-----------------	------

Mg++	gl	KCl	25°C	0.10M	U			K1=9.14	19670Tb (94030)	1806
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C16H20N2O10			H6L					(704)		
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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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Mg++	gl	KNO3	25°C	0.10M	C			K1=8.24	1988ZHa (94063)	1807
------	----	------	------	-------	---	--	--	---------	-----------------	------

K(Mg+H2L)=5.62

K(Mg+HL)=7.47

K(MgHL+H)=9.29

K(MgL+H)=11.10

B(Mg2L)=14.81

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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
Mg++	gl	oth/un	25°C	0.0	U				1970TTb (94075)	1808
								K(Mg+HL)=6.8		
								K(Mg+H2L)=5.0		
								K(Mg+H3L)=1.8		
								K(2Mg+HL)=15.2		

\*\*\*\*\*

C16H22N2O4P2                      H2L                      (7262)  
1,2-Diaminoethane-N,N'-bis(methylenephosphinic acid); (CH2NHCH2PO(OH)C6H5)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	R4N.X	25°C	0.10M	M			K1=3.14	1996BCa (94126)	1809
		Medium: 0.1 M Me4NNO3.								

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C16H24N2O8                      H4L                      CAS 38557-30-1 (1256)  
Ethylene-bis(N,N'-(2,6-dicarboxy)piperidine); ((HOOCC)2.C5H8N.CH2.)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	NaNO3	25°C	0.10M	U			K1=6.36	1979PBa (94317)	1810

\*\*\*\*\*

C16H24O14                      H4L                      CAS 61696-54-6 (6104)  
1,4,7,10,13,16-Hexaoxacyclooctadeca-2,3,11,12-tetracarboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	R4N.X	25°C	0.10M	M			K1=3.3	1991FGb (94489)	1811
								B(MgHL)=8.0		

Medium: 0.10 M Et4NNO3.

\*\*\*\*\*

C16H25NO4                      L                      (7444)  
1-Aza-4,7,10,13-tetraoxa-1-phenyl-cyclopentadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	sp	non-aq	RT	100%	C			K1=2.51	2001AVa (94511)	1812
		Method: spectrophotometric titration. Medium: acetonitrile.								

\*\*\*\*\*

C16H26N2O10                      H2L                      CAS 93031-54-0 (5831)  
1,4,7,10-Tetraoxa-13,16-diazacyclooctadecane-11,18-dione-13,16-diethanoic acid;

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

Mg++            gl   R4N.X   25°C 0.10M C            K1=3.02            2002DCb (94563)1813  
K(MgL+H)=5.67

Medium: 0.10 M Me4NNO3.

\*\*\*\*\*

C16H26O8S4                            H4L                            CAS 53480-92-5 (1162)  
Butane-1,1,4,4-tetramercaptopropanoic acid; (CH2.CH(S.CH2.CH2.COOH)2)2

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

Mg++            gl   NaClO4   25°C 0.10M U            K1=2.20            1975PJa (94638)1814

\*\*\*\*\*

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  
-----

Mg++            gl   KCl       25°C 0.10M C            K1=4.61            1995IOa (94663)1815

\*\*\*\*\*

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  
-----

Mg++            gl   KNO3     20°C 0.10M U            K1=5.20            1969NDc (94705)1816

\*\*\*\*\*

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  
-----

Mg++            gl   KNO3     20°C 0.10M U            K1=7.96            1969NDc (94731)1817

\*\*\*\*\*

C16H28N2O8                            H4L                            (5138)  
1,2-Diaminooctane-N,N,N',N'-tetraethanoic acid;  
(HOOCCH2)2N.CH2.CH(C6H13)N(CH2COOH)2

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

Mg++            gl   KNO3     20°C 0.10M U            K1=10.16            1979MBd (94757)1818

\*\*\*\*\*

C16H28N2O8                            H4L                            (2850)  
1,8-Diaminooctane-N,N,N',N'-tetraethanoic acid; ((HOOCCH2)2N(CH2)4)2

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

Mg++            gl   KNO3     20°C 0.10M U            K1=4.8            1964ANa (94790)1819

K(Mg+HL)=3.66

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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
Mg++	gl	R4N.X	25°C	0.10M	M			K1=11.79	1996CHc	(94870)1820
Medium: 0.1 M Me4NCl.										
Mg++	gl	KCl	25°C	0.10M	C			K1=11.15	1991CMb	(94871)1821
Mg++	cal	R4N.X	25°C	0.10M	C	H			1984DFa	(94872)1822
Medium: 0.10 M Me4NNO3. DH(K1)=7.9 kJ mol <sup>-1</sup> , DS(K1)=255 J K <sup>-1</sup> mol <sup>-1</sup> .										
Mg++	gl	R4N.X	25°C	0.10M	C			K1=13.64 K(Mg+HL)=3.917	1982DSa	(94873)1823
Mg++	EMF	KCl	20°C	0.10M	C			K1=11.0	1981SFa	(94874)1824
Method: Pt/H2 electrode.										
Mg++	gl	KCl	20°C	0.10M	U			K1=11.03	1976SFb	(94875)1825
*****										
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
Mg++	gl	R4N.X	25°C	0.10M	C			K1=7.34	2000CDd	(94961)1826
Medium: 0.10 M (Me4N)NO3.										
*****										
C16H30N4O8 H4L (3473)										
N,N'-Dimethyl-2,2'-ethylenedi-iminobis(ethylenediethanoic acid);										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KCl	20°C	0.10M	U			K1=4.31 K(Mg+HL)=3.30	1964PCa	(95081)1827
*****										
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
Mg++	gl	R4N.X	25°C	0.05M	C	I		K1=<2	1975LSc	(95174)1828
In 95% MeOH: K1 < 2										
*****										
C16H32N4O6 H2L (7344)										
4,10-Bis(2-hydroxyethyl)-1,4,7,10-Tetraazacyclododecane-1,7-bis(ethanoic acid);										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.10M	C			K1=7.0	1997HTa	(95326)1829
*****										

C16H32N4O6 L CAS 98608-90-3 (1322)  
N,N'-Bis(carbamoylmethyl)-1,7,10,16-tetraoxa-4,13-diazacyclooctadecane;  
-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ gl NaClO4 25°C 0.50M U K1=<2 1981KMb (95333)1830  
\*\*\*\*\*  
C16H34N2O5 L (6953)  
7,13-Bis(2-methoxyethyl)-1,4,10-trioxa-7,13-diazacyclopentadecane;  
-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ gl R4N.X 25°C 0.10M C K1=2 1995LLa (95411)1831  
Medium: Et4NClO4  
\*\*\*\*\*  
C16H34N2O6 L CAS 69930-74-1 (1321)  
N,N'-Bis(2-hydroxyethyl)-1,7,10,16-tetraoxa-4,13-diazacyclooctadecane;  
-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ gl R4N.X 25°C 0.10M C K1=2 1995LLa (95444)1832  
Medium: Et4NClO4  
-----  
Mg++ gl NaClO4 25°C 0.50M U K1=<2 1981KMb (95445)1833  
\*\*\*\*\*  
C16H34N4O2 L CAS 60598-04-1 (1530)  
4,7-Dimethyl-1,4,7,10-tetraaza-13,18-dioxabicyclo[8,5,5]eicosane;  
-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ gl R4N.X 25°C 0.10M U K1=2.4 1978LMa (95469)1834  
\*\*\*\*\*  
C16H36N4O4 L (6703)  
1,4,7,10-Tetrakis(2-hydroxyethyl)-1,4,7,10-tetraazacyclododecane;  
-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ gl R4N.X 25°C 0.10M C K1=2.86 2000DFb (95568)1835  
Medium: 0.10 M Et4NClO4.  
\*\*\*\*\*  
C17H12N2O3 H2L (2040)  
1-(2-Carboxyphenylazo)-2-hydroxynaphthalene; H00C.C6H4.N:N.C10H6.OH  
-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ sp KCl rt 0.10M U 1960DEa (95701)1836  
K1eff=2.10 (pH 10)  
\*\*\*\*\*  
C17H12N2O10S2 H5L CAS 3440-76-4 (4119)  
2-(2'-Carboxyphenylazo)chromotropic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	U		K(Mg+HL)=4.53	1971KMb (95717)	1837
Mg++	gl	KNO3	25°C	0.10M	U		K(Mg+HL)=4.55	1968NMb (95718)	1838
*****									
C17H14N2O		HL					CAS 2046-17-5	(5214)	
1-(2-Methylphenylazo)-2-hydroxynaphthalene;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	mixed	25°C	75%	U		K1=7.26	1972MCb (95793)	1839
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
Mg++	gl	mixed	25°C	75%	U		K1=7.76	1972MCb (95808)	1840
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
Mg++	gl	mixed	25°C	75%	U		K1=7.96	1972MCb (95827)	1841
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
Mg++	gl	mixed	25°C	75%	U		K1=7.55	1972MCb (95842)	1842
Medium: 75% acetone, 0.1 M KNO3									
*****									
C17H14N2O8S2		H4L					CAS 15475-90-8	(2605)	
2-(2-Tolylazo)-chromotropic acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	U		K(Mg+HL)=3.47	1971KMb (95939)	1843
*****									
C17H14N2O9S2		H4L					(5228)		

2-(2-Methoxyphenylazo)chromotropic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	gl	KN03	25°C	0.10M	U			K(Mg+HL)=3.95	1971KMb (95943)	1844
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C17H16N2O HL CAS 36458-48-7 (5219)

2-(4-Tolylaminomethyl)-8-hydroxyquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	gl	diox/w	25°C	50%	U			K1=4.2	1972HUb (96024)	1845
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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
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Mg++	gl	mixed	30°C	60%	M	I		K1=4.34 B2=7.88	1991GDb (96145)	1846
------	----	-------	------	-----	---	---	--	-----------------	-----------------	------

Medium: 60%v/v acetone/water; 0.1M NaClO4; data also for 65% and 75%; for 75% v/v dioxane/water and EtOH/water.

Mg++	gl	mixed	30°C	60%	M	I		K1=4.34 B2=7.88	1991GDc (96146)	1847
------	----	-------	------	-----	---	---	--	-----------------	-----------------	------

Medium: 60%v/v acetone/water; 0.1M NaClO4; data also for 65% and 75%; for 75% v/v dioxane/water and EtOH/water

Mg++	gl	alc/w	30°C	75%	M	TI		K1=4.66 B2=8.05	1990DGc (96147)	1848
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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
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Mg++	gl	diox/w	30°C	75%	U			K1=8.55	1955H0a (96171)	1849
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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
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Mg++	gl	NaClO4	?	0.10M	U			K1=3.61 B2=6.84	1963DSa (96181)	1850
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C17H20N4O6 HL Riboflavin CAS 83-88-5 (1438)

7,8-Dimethyl-10(D-1'-ribityl)isoalloxazine, Vitamin B2, Vitamin H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++ sol oth/un 22°C U K1=0.47 1980Lda (96335)1851  
Medium: variable Mg(ClO4)2 content 0.1-0.9 M  
The same constant measured spectrophotometrically: K1=-0.69  
\*\*\*\*\*

C17H21N4O9P H3L CAS 130-40-5 (3495)  
Flavin mononucleotide, Riboflavin-5'-phosphoric acid;  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	ix	NaCl	23°C	0.10M	U		K1=2.03	1958WAa (96386)	1852
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C17H22N2O9 H5L CAS 85929-35-7 (3493)  
2-Hydroxy-5-methyl-1,3-phenylenebis(methyliminodiethanoic acid);  
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	EMF	KCl	20°C	0.10M	C		K1=8.0 K(Mg+HL)=6.8	1952SAb (96403)	1853
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Method: H electrode  
\*\*\*\*\*

C17H24N4O6 H3L (7349)  
3,6,9,15-Tetraazabicyclo[9.3.1]pentadeca-1(15),11,13-triene-3,6,9-triethanoic acid;  
-----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	R4N.X	25°C	0.10M	C		K1=11.82 K(MgL+H)=3.70	1997DQa (96451)	1854
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Medium:Me4NNO3  
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Mg++	EMF	KCl	20°C	0.10M	C		K1=7.2	1981SFa (96452)	1855
------	-----	-----	------	-------	---	--	--------	-----------------	------

Method: Pt/H2 electrode.  
\*\*\*\*\*

C17H27NO5 L CAS 98269-22-8 (8844)  
13-(2-Methoxyphenyl)-1,4,7,10-tetraoxa-13-azacyclopentadecane;  
-----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	sp	alc/w	RT	10%	C		K1=0.9	2002GNe (96543)	1856
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Medium: 10% v/v MeOH/H2O, pH 7.4 (0.1M Tris buffer), 0.1 M Me4NCl.  
\*\*\*\*\*

C17H28O8S4 H4L (1163)  
Pentane-1,1,5,5-tetramercaptopropionic acid; CH2(CH2.CH(S.CH2.CH2.COOH)2)2  
-----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Mg++	gl	NaClO4	25°C	0.10M	U		K1=2.21	1975PJa (96563)	1857
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\*\*\*\*\*

C17H30N4O8 H4L TRITA CAS 60239-20-5 (1018)  
1,4,7,10-Tetraazacyclotridecane-1,4,7,10-tetraethanoic acid;  
-----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.10M	C		K1=8.18 K(MgL+H)=8.12	1991CMb (96637)	1858
Mg++	gl	KNO3	25°C	0.10M	C		K1=7.620 K(Mg+HL)=2.781	1982DSa (96638)	1859
Mg++	EMF	KCl	20°C	0.10M	C		K1=6.4	1981SFa (96639)	1860
Method: Pt/H2 electrode.									
Mg++	gl	KCl	20°C	0.10M	U		K1=6.36	1976SFb (96640)	1861
*****									
C17H30O6		H2L					CAS 159029-04-6	(7605)	
15-(Methoxymethoxy)-9,11-dioxo-pentadecanoic acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	alc/w	RT	80%	C		K1=3.64	1994HWc (96670)	1862
Medium: 80%MeOH/H2O. Also data for many analogues.									
*****									
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
Mg++	gl	R4N.X	25°C	0.10M	C		K1=3.46	2000CDd (96680)	1863
Medium: 0.10 M (Me4N)NO3.									
*****									
C17H32N4O6		H3L					(7253)		
1,4,7,10-Tetraazacyclododecane-1-propyl-4,7,10-triethanoic acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	R4N.X	25°C	0.10M	M		K1=9.35	1996CHc (96693)	1864
Medium: 0.1 M Me4NCl.									
*****									
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
Mg++	gl	R4N.X	25°C	0.10M	M		K1=9.70	1996CHc (96710)	1865
Medium: 0.1 M Me4NCl.									
*****									
C17H32N4O8		H3L					(7255)		
1,4,7,10-Tetraazacyclododecane-1-(2,3-dihydroxypropyl)-4,7,10-triethanoic acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

-----  
Mg++ gl R4N.X 25°C 0.10M M K1=9.72 1996CHc (96724)1866  
Medium: 0.1 M Me4NCl

\*\*\*\*\*  
C17H34N4O4S L CAS 503465-04-1 (9247)  
4,7,13,16-Tetraoxa-1,10,21,23-tetraazabicyclo[8.8.7]pentacosane-22-thione;  
-----

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

Mg++ gl alc/w 25°C 95% C K1=2.12 2004KVa (96755)1867  
Medium: 95% MeOH/H2O, 0.01 M Et4NClO4.

\*\*\*\*\*  
C18H11NO2 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  
-----

Mg++ gl diox/w 30°C 75% U K1=7.33 1964CMb (96840)1868

\*\*\*\*\*  
C18H12N2O11S2 H5L (5251)  
2-(2'-Oxalophenylazo)chromotropic acid;  
-----

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

Mg++ gl KNO3 25°C 0.10M U 1971KMb (96867)1869  
K(Mg+HL)=4.45

\*\*\*\*\*  
C18H14N2O3 H3L (4127)  
2-(2',4'-Dihydroxyphenylazo)-4-phenylphenol;  
-----

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

Mg++ sp KCl rt 0.10M U 1960DEa (96916)1870  
K1eff=3.68 (pH 10)

\*\*\*\*\*  
C18H14N2O9S2 H4L (5252)  
2-(2'-Methyl-benzoylazo)chromotropic acid;  
-----

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

Mg++ gl KNO3 25°C 0.10M U 1971KMb (96934)1871  
K(Mg+HL)=3.66

\*\*\*\*\*  
C18H14N2O10S2 H5L (5253)  
2-(2-Phenylethanoic acidazo)chromotropic acid;  
-----

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

Mg++ gl KNO3 25°C 0.10M U 1971KMb (96938)1872  
K(Mg+HL)=4.00

\*\*\*\*\*

C18H14N2O11S2                      H5L                      (4132)  
2-(2'-(Carboxyhydroxymethyl)phenylazo)chromotropic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	U			K(Mg+HL)=3.96	1971KMb (96944)	1873

\*\*\*\*\*

C18H14N2O11S2                      H5L                      (4133)  
2-(2'-(Carboxymethoxy)phenylazo)chromotropic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	KNO3	25°C	0.10M	U			K(Mg+HL)=4.31	1971KMb (96951)	1874

\*\*\*\*\*

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
Mg++	gl	diox/w	30°C	75%	U			K1=3.9	1962SCc (97198)	1875

\*\*\*\*\*

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
Mg++	gl	diox/w	30°C	75%	U			K1=5.71	1962SCc (97209)	1876

\*\*\*\*\*

C18H18O8                      H2L                      (5631)  
1,4-bis(2-Carboxymethoxyphenyl)-1,4-dioxabutane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	alc/w	25°C	90%	M			K1=1.27	1998KLa (97302)	1877

Medium: 90% v/v MeOH/H2O, 0.1 M Me4NCl

\*\*\*\*\*

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
Mg++	gl	KNO3	25°C	0.10M	C			K1=14.4	1992GVa (97391)	1878

K(Mg+HL)=10.3

K(Mg+H2L)=6.0

\*K(MgH2L)=-7.2

\*K(MgHL)=-9.5



N,N'-Bis(2-hydroxybenzyl)ethylenediamine-N,N'-bis(methylenephosphonic)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	gl	KN03	25°C	0.10M	C			K1=7.95 K(Mg+H2L)=3.04 K(MgL+H)=11.05 K(MgHL+H)=9.10	1975MMc (97740)	1886
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C18H28N4O4 H2L (7378)  
7-Methyl-3,7,11,17-tetraazabicyclo[11.3.1]heptadeca-1(17),13,15-triene-3,11-diethan  
oic acid;

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

Mg++	gl	R4N.X	25°C	0.10M	C			K1=5.3 K(Mg(OH)L+H)=8.74	1997CDb (97783)	1887
------	----	-------	------	-------	---	--	--	-----------------------------	-----------------	------

Medium: NMe4NO3

\*\*\*\*\*

C18H28O5 L CAS 15196-73-3 (2359)  
2,3-(4'-Dimethylethylbenzo)-1,4,7,10,13-pentaoxacyclopentadeca-2-ene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	EMF	non-aq	25°C	100%	U			K1=6.72	1982MRb (97800)	1888
------	-----	--------	------	------	---	--	--	---------	-----------------	------

Medium: anhydrous propylene carbonate, 0.1M Et4NClO4

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C18H28O6 H2L O(EAcAcE)20 CAS 73199-63-0 (2251)  
1,11-Dioxacycloeicosane-5,7,15,17-tetraone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	gl	diox/w	24°C	50%	U			K1=7.2	1979ACa (97829)	1889
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C18H28O10 H2L (OE0AcAcOE)2 CAS 62950-36-1 (2254)  
1,4,10,13,16,22-Hexaoxacyclotetracosane-6,8,18,20-tetraone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	gl	diox/w	24°C	50%	U			K1=7.4	1979ACa (97867)	1890
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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
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Mg++	gl	NaCl	25°C	0.15M	U			K1=2.53	1995BGa (97925)	1891
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C18H30N4O12 H6L CAS 869-52-3 (3504)  
2,2',2''-Nitrilotris(ethyliminodiethanoic acid); N(CH2.CH2.N(CH2.CO0H)2)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	EMF	KCl	20°C	0.10M	C		K1=7.5 K(Mg+HL)=5.5	1964PCa (97940)	1892
Method: H electrode									
*****									
C18H30N4O12		H6L		TTHA			CAS 869-52-3 (694)		
Triethylenetetraaminehexaethanoic acid;((H00C.CH2)2N.CH2.CH2.N(CH2.C00H).CH2)2									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	ISE	KNO3	25°C	0.10M	U		K1=8.43	1970HAa (98003)	1893
By glass electrode : K1=8.10, K(MgL+H)=9.30, B(Mg2L)=5.95									
-----									
Mg++	gl	KNO3	25°C	0.10M	U		K(MgHL+H)=4.65 K(MgL+H)=9.31 B(Mg2L)=13.9	1967Bmd (98004)	1894
-----									
Mg++	gl	KNO3	25°C	0.10M	U		K1=8.43 K(Mg+H2L)=2.81 K(Mg+HL)=7.55 K(MgL+Mg)=5.5 K(Mg2L+Mg)=3.10	1965BMf (98005)	1895
-----									
Mg++	gl	KCl	30°C	0.10M	U		K1=8.47 K(Mg+H2L)=1.9 K(Mg+HL)=7.39 K(MgL+Mg)=5.94	1963GHa (98006)	1896
*****									
C18H31N5O8		H3L					CAS 165196-67-8 (8858)		
1,4,7-Tris(carboxymethyl)-1,4,7,10,15-pentaazacycloheptane-9,16-dione;									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.10M	C		K1=4.88	1995IOa (98128)	1897
*****									
C18H32N4O8		H4L		TETA			CAS 60239-22-7 (1019)		
1,4,8,11-Tetraazacyclotetradecane-1,4,8,11-tetraethanoic acid;									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.10M	C		K1=3.01	1991Cmb (98183)	1898
-----									
Mg++	gl	KNO3	25°C	0.10M	C		K1=1.967 K(Mg+HL)=1.743	1982DSa (98184)	1899
-----									
Mg++	EMF	KCl	20°C	0.10M	C		K1=3.0	1981SFa (98185)	1900
Method: Pt/H2 electrode.									

-----  
Mg++ gl KCl 20°C 0.10M U K1=3.02 1976SFb (98186)1901  
\*\*\*\*\*

C18H32N4O8 H4L (8192)  
3-Methyl-1,5,8,11-tetraazacyclotridecane-1,5,8,11-tetraethanoic acid;  
-----

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

Mg++ EMF KCl 20°C 0.10M C K1=7.5 1981SFa (98244)1902  
Method: Pt/H<sub>2</sub> electrode. For the 3-ethyl- derivative, K1=6.4;  
for the 3,3-dimethyl- derivative, K1=4.5  
\*\*\*\*\*

C18H32N4O8 H4L CAS 189282-31-3 (8974)  
4,7,10,13-Tetrakis-(carboxymethyl)-1-oxa-4,7,10,13-tetraazacyclopentadecane;  
-----

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

Mg++ gl R4N.X 25°C 0.10M C K1=7.31 1999CDb (98254)1903  
K(MgL+Mg)=2.5

Medium: 0.10 M NMe<sub>4</sub>NO<sub>3</sub>.  
\*\*\*\*\*

C18H34N4O8 H3L (7256)  
1,4,7,10-Tetraazacyclododecane-1-(2-hydroxy-3-methoxypropyl)-4,7,10-triethanoic  
acid;  
-----

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

Mg++ gl R4N.X 25°C 0.10M M K1=9.71 1996CHc (98367)1904  
Medium: 0.1 M Me<sub>4</sub>NCl  
\*\*\*\*\*

C18H36N2O5 L Cryptand 2,2,1H CAS 119017-37-7 (6588)  
5,8,15,18,23-Pentaoxa-1,12-diazabicyclo[10.8.5]pentacosane;  
-----

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

Mg++ gl alc/w 25°C 95% M K1=<2 1990LNa (98412)1905  
Medium: 95% MeOH, 0.05 M Bu<sub>4</sub>NBr. For the 9,16-dihydroxy- analogue: K1=4.32  
\*\*\*\*\*

C18H36N2O6 L Cryptand 2,2,2 CAS 23978-09-8 (514)  
1,10-Diaza-4,7,13,16,21,24-hexaoxabicyclo[8.8.8]hexacosane;  
-----

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

Mg++ EMF non-aq 25°C 100% C H K1=10.73 1992BSc (98511)1906  
Medium: propylene carbonate. Method: disproportionate titration with Ag.  
By calorimetry, DH(K1)=-39 kJ mol<sup>-1</sup>, DS(K1)=73.8 J K<sup>-1</sup> mol<sup>-1</sup>.  
-----

Mg++ gl R4N.X 25°C 0.05M C I K1=<2 1975LSc (98512)1907  
In 95% MeOH: K1 < 2  
\*\*\*\*\*



C18H36N4O6                      H2L                      (7345)  
4,10-Bis(2-hydroxypropyl)-1,4,7,10-Tetraazacyclododecane-1,7-bis(ethanoic acid);

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

Mg++            gl    KCl        25°C 0.10M C            K1=8.0            1997HTa (98788)1908  
\*\*\*\*\*

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  
-----

Mg++            gl    R4N.X    25°C 0.10M C            K1=2            1995LLa (98836)1909  
Medium: Et4NClO4

\*\*\*\*\*

C18H38N4O8P2                      H6L                      CAS 187240-55-7 (7347)  
1,4,7,10-Tetraazacyclododecane-1,7-bis(ethanoic  
acid)-4,10-bis(methylene-ethylphosphinic acid);

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

Mg++            gl    KCl        25°C 0.10M C            K1=7.63            1997HTa (98866)1910  
\*\*\*\*\*

C18H38N4O10P2                      H6L                      CAS 187240-54-6 (7346)  
1,4,7,10-Tetraazacyclododecane-1,7-bis(ethanoic  
acid)-4,10-bis(ethylmethylenephosphonic acid);

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

Mg++            gl    KCl        25°C 0.10M C            K1=7.5            1997HTa (98870)1911  
\*\*\*\*\*

C18H40N4O4                      L                      CAS 89066-60-2 (867)  
N,N',N'',N'''-Tetrakis(2-hydroxyethyl)-1,4,8,11-tetraazacyclotetradecane;

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

Mg++            gl    NaNO3    25°C 0.10M U            K1=1.86            1984MMc (98921)1912  
\*\*\*\*\*

C19H16N2O2                      HL                      CAS 29126-31-6 (8348)  
N-[4-[[[(2-Hydroxy-1-naphthalenyl)methylene]amino]phenyl] acetamide;

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

Mg++            gl    diox/w 25°C 75% U            K1=5.20    B2= 9.83    1981MGb (99157)1913  
Medium: 75% dioxane/H2O, 0.10 M NaClO4.

\*\*\*\*\*

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  
-----

Also data at 35 C.

C19H18N4O3S                      H2L                      (4145)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K	values	Reference	ExptNo
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4-(2'-(2''-Carboxyethoxy)phenylazo)-3-methyl-1-Phe-pyrazol-5(2H)-one;

\*\*\*\*\*

4-Butyl-1,2-diphenylpyrazolidine-3,5-dione;

Medium: 50% EtOH, 0.1 M KCl

\*\*\*\*\*

Propylenediamine-N,N'-bis(2-hydroxyphenylethanoic acid);

$$B(MgH_2L) = 25.57$$

\*\*\*\*\*

3,7,11-Tris(carboxymethyl)-3,7,11,17-tetraazabicyclo[11.3.1]heptadeca-1(17),13,15-triene:

Medium: 0.10 M Me<sub>4</sub>NNO<sub>3</sub>.

\*\*\*\*\*

4-Methyl-1,4,10-triaza-7,13,16,21,24-pentaoxa-bicyclo[8,8,8]hexacosane;

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

-----  
Mg++ gl R4N.X 25°C 0.10M U K1=1.9 1978LMa (99488)1920  
\*\*\*\*\*

C20H13N3O7S H3L Eriochrome Bl T CAS 1787-61-7 (997)  
1-(1-Hydroxy-2-naphthylazo)-6-nitro-2-naphthol-4-sulfonic acid;

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

Mg++ sp non-aq 25°C 100% U 1973PCa (99557)1921  
K(Mg+HL=MgL+H)=5.02  
K(Mg+H2L=MgL+2H)=3.97

Medium: CH3CN

-----  
Mg++ sp oth/un 18°C 0.08M U K1=7.0 1948SBa (99558)1922  
\*\*\*\*\*

C20H13N3O7S H3L EriochromeBla A CAS 16279-54-2 (5299)  
3-Hydroxy-4-(2-hydroxy-1-alpha-naphthylazo)-7-nitronaphthalene-1-sulfonic acid;

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

Mg++ sp oth/un 18°C 0.08M U K1=7.2 1948SBa (99583)1923  
\*\*\*\*\*  
C20H14N2O HL (5291)

1-(1-Naphthylazo)-2-hydroxynaphthalene;

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

Mg++ gl mixed 25°C 75% U K1=6.44 1972MCb (99597)1924  
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  
-----

Mg++ gl mixed 25°C 75% U K1=7.10 1972MCb (99612)1925  
Medium: 75% acetone, 0.1 M KNO3  
\*\*\*\*\*

C20H14N2O2 H2L CAS 13082-06-9 (3506)  
1,1'-Azo-(2-hydroxynaphthalene);

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

Mg++ gl diox/w 30°C 75% U 1957SFb (99626)1926  
K(Mg+H2L=MgL+2H)=-12.8  
\*\*\*\*\*

C20H14N2O5S H3L Solochrome 6B CAS 3564-14-5 (3507)  
1-(1-Hydroxy-2-naphthylazo)-2-naphthol-4-sulfonic acid, Mordant Black3, Eriochrome  
blue-black B;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	vlt	NaCl	25°C	0.20M	C				1985GSb (99642)	1927

K1eff=3.36

Method: polarography. Data for 10-40 C. Medium: 0.2 M NH3/0.2 M NH4Cl, pH 10.9

Mg++	sp	oth/un	18°C	0.08M	U			K1=7.4	1948SBa (99643)	1928
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C20H14N2O5S H3L EriochrBluBlk R CAS 2538-85-4 (3508)

3-Hydroxy-4-(2-hydroxy-1-naphthylazo)naphthalene-1-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	sp	oth/un	25°C	0.10M	U			K1=7.64	1957HRa (99684)	1929

Mg++	sp	oth/un	18°C	0.08M	U			K1=7.56	1948SBa (99685)	1930
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C20H14N2O11S3 H2L Hydroxynaphthol CAS 63451-35-4 (2835)

Hydroxynaphthol blue, 1-(2-Hydroxy-4-sulfo-1-naphthylazo)-2-naphthol-3,

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	sp	none	25°C	0.0	U				1980WNa (99723)	1931

K(Mg+HL=MgL+H)=6.83

Data for similar ligands also included

Mg++	sp	none	25°C	0.0	U				1978BRb (99724)	1932
------	----	------	------	-----	---	--	--	--	-----------------	------

K1eff=3.43

Keff at pH 10

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C20H16N2O HL CAS 36458-50-1 (5293)

2-(Naphthylaminomethyl)-8-hydroxyquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	diox/w	25°C	50%	U			K1=4.6	1972HUb (99762)	1933

Medium: 50% v/v dioxan, 0.1 M KCl

\*\*\*\*\*

C20H16N2O2 H2L CAS 3946-91-6 (2733)

N,N'-Bis(2'-hydroxybenzylidene)-1,2-diaminobenzene; (HOC6H4CH:N)2.C6H4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	mixed	25°C	80%	C			K1=6.28	1997HMc (99772)	1934

B(MgHL)=14.56

Medium: 80% w/w DMSO/H2O, 0.5 M NaClO4.

\*\*\*\*\*

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
Mg++	gl	diox/w	30°C	75%	U		K(Mg+H2L=MgL+2H)=-12.0	1957SFb (99794)	1935
*****									
C20H17NO		HL					(6215)		
N-(2-Hydroxy-5-phenylbenzylidene)-2-methylaniline; C6H5.C6H3(OH).CH:N.C6H4.CH3									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	diox/w	30°C	75%	U		K1=3.544	1986MBd (99810)	1936
*****									
C20H19N08		L					(2558)		
4-Dedimethylamino-tetracycline;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl	37°C	0.15M	C		K1=4.744 B2=7.642	1988LVa (99853)	1937
*****									
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
Mg++	gl	diox/w	25°C	75%	U T		K1=3.00	2001SSd (99873)	1938
Medium: 75% v/v dioxan/H2O, 0.10 NaCl04. Data for 30 and 35 C.									
*****									
C20H21N3O8S2		H4L					(2841)		
2-(2-Hydroxy-3,6-disulfo-1-naphthylazo)-5-(N,N-diethylamino)phenol;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	none	25°C	0.0	U		K1=7.2	1984WNa (99913)	1939
*****									
C20H21N6O8P		H2L					CAS 155933-76-9	(8687)	
3'-Adenylic acid, mono[(8-hydroxy-2-quinolinyl)methyl] ester;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	KCl	30°C	1.0M	M		K1=3.03	1996BTa (99916)	1940
*****									
C20H24N2O6		H4L					CAS 115538-91-5	(9198)	
Butylenediamine-N,N'-bis(2-hydroxyphenylethanoic acid);									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl	25°C	0.10M	C		K1=7.52	2004SGb (99959)	1941
B(MgHL)=16.15									
B(MgH2L)=25.14									

Additional method: UV-visible spectrometry

\*\*\*\*\*

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
Mg++	gl	KNO3	25°C	0.10M	U			K1=10.51 K(Mg+HL)=6.20 K(Mg+H2L)=2.21	1967LMd (99986)	1942

\*\*\*\*\*

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
Mg++	EMF	alc/w	25°C	100%	C			K1=3.15	2004ZTa (100078)	1943

Medium: 100% methanol, 0.05 M Bu4NClO4. Method: Ag electrode, competition with Ag+ ion.

Mg++	con	mixed	25°C	20%	C			K1=4.40	2003SIa (100079)	1944
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Medium: 20% w/w propylene carbonate/ethylene carbonate.

Mg++	con	non-aq	25°C	100%	C			K1=4.52	1992STa (100080)	1945
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Medium: propylene carbonate.

Mg++	vlt	non-aq	25°C	100%	C			K1=<2.5	1991SSb (100081)	1946
------	-----	--------	------	------	---	--	--	---------	------------------	------

Method: competitive complexation with Tl+; use of Tl(Hg)/Tl couple.  
Medium: acetonitrile, 0.05 M Et4NClO4.

Mg++	sp	alc/w	25°C	100%	U	I		K1=2.33	1989KSc (100082)	1947
------	----	-------	------	------	---	---	--	---------	------------------	------

In MeOH. In DMF K1 <2, in DMSO K1 <2

Mg++	vlt	alc/w	25°C	100%	C			K1=2.10	1987CBd (100083)	1948
------	-----	-------	------	------	---	--	--	---------	------------------	------

Medium: methanol, 0.10 M Et4NI or Bu4NClO4. Method: polarography.

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C20H36N4O8 H4L (8193)

3,3-Dimethyl-1,5,8,12-tetraazacyclotetradecane-1,5,8,12-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	EMF	KCl	20°C	0.10M	C			K1=2.9	1981SFa (100574)	1949

Method: Pt/H2 electrode. For the 3,3,10,10-tetramethyl- homologue, K1=2.9

\*\*\*\*\*

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
Mg++	EMF	alc/w	25°C	100%	C			K1=3.57	2004ZTa (100621)	1950

Medium: 100% methanol, 0.05 M Bu<sub>4</sub>NClO<sub>4</sub>. Method: Ag electrode, competition with Ag<sup>+</sup> ion.

Mg++ con mixed 25°C 20% C K1=4.21 2003SIa (100622)1951  
Medium: 20% w/w propylene carbonate/ethylene carbonate.

Mg++ con non-aq 25°C 100% C K1=4.55 1992STa (100623)1952  
Medium: propylene carbonate.

Mg++ vlt non-aq 25°C 100% C K1=3.46 1991SSb (100624)1953  
Method: competitive complexation with Tl<sup>+</sup>; use of Tl(Hg)/Tl couple.  
Medium: acetonitrile, 0.05 M Et<sub>4</sub>NClO<sub>4</sub>.

\*\*\*\*\*  
C<sub>20</sub>H<sub>40</sub>N<sub>2</sub>O<sub>6</sub> L Cryptand 2,2,2H (6606)  
1,10-Diaza-4,7,14,17,23,26-Hexaoxabicyclo[10.8.8]octacosane;

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

Mg++ gl alc/w 25°C 95% M K1=<2 1990LNa (100782)1954  
Medium: 95% MeOH, 0.05 M Bu<sub>4</sub>NBr. For the 12,19-dihydroxy- analogue: K1=3.63

\*\*\*\*\*  
C<sub>20</sub>H<sub>40</sub>N<sub>2</sub>O<sub>6</sub> L Cryptand 3,2,1H (6589)  
1,7-Diaza-4,11,14,17,23,26-hexaoxabicyclo[13.8.5]octacosane;

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

Mg++ gl alc/w 25°C 95% M K1=<2 1990LNa (100791)1955  
Medium: 95% MeOH, 0.05 M Bu<sub>4</sub>NBr. For the 9,19-dihydroxy- analogue: K1=3.24

\*\*\*\*\*  
C<sub>20</sub>H<sub>40</sub>N<sub>2</sub>O<sub>7</sub> L Cryptand 3,2,2 CAS 31255-22-8 (1763)  
Cryptand 3,2,2

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

Mg++ gl R<sub>4</sub>N.X 25°C 0.05M C I K1=<2.0 1975LSc (100806)1956  
In 95% MeOH: K1 < 2

\*\*\*\*\*  
C<sub>20</sub>H<sub>42</sub>N<sub>4</sub>O<sub>4</sub> L CAS 39678-14-3 (1543)  
4,7-Dimethyl-1,4,7,10-tetraaza-13,16,21,24-tetraoxa-bicyclohexacosane;

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

Mg++ gl R<sub>4</sub>N.X 25°C 0.10M U K1=2.6 1978LMa (100884)1957  
\*\*\*\*\*

C<sub>20</sub>H<sub>44</sub>N<sub>4</sub>O<sub>4</sub> L (6730)  
1,4,7,10-Tetra-(2-methoxyethyl)-1,4,7,10-tetrazacyclododecane;

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

Mg++ gl R<sub>4</sub>N.X 25°C 0.10M C K1=2.47 1993SFb (100936)1958

Medium: 0.1 M Et4NClO4.

\*\*\*\*\*

C20H48N4O8P4 H4L (6569)  
1,4,7,10-Tetraazacyclododecane-1,4,7,10-tetrakis(methyleneethylphosphinic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	25°C	0.10M	C		K1=4.41	1997HTa (100991)	1959

Mg++	gl	KNO3	25°C	0.10M	C		K1=4.41	1991LSc (100992)	1960
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C21H14N2O7S H4L CAS 3737-95-9 (5313)  
3-Hydroxy-4-(2-hydroxy-4-sulfo-1-naphthylazo)-2-naphthalenecarboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	alc/w	20°C	25%	U		K1=7.64	1971KBc (101028)	1961

Medium: 25% MeOH, 0.1 M KCl

\*\*\*\*\*

C21H14N4O2 HL CAS 194480-84-7 (8524)  
2-Hydroxy-1-naphthalenecarboxaldehyde benzofuro[2,3-d]pyrimidin-4-ylhydrazone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	diox/w	30°C	10%	U		K1=5.006	1997HVa (101034)	1962

Medium: 10% v/v dioxane/H2O, 0.10 M NaClO4.

\*\*\*\*\*

C21H18N2O2 H2L (7319)  
N,N'-3,4-Toluenebis(salicylideneimine); CH3.C6H3(N:CH.C6H4OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	mixed	25°C	80%	C		K1=6.90 B(MgHL)=15.19	1997HMa (101115)	1963

In 80 % (wt/wt) DMSO-H2O, I= 0.5 M NaClO4

\*\*\*\*\*

C21H19NO HL (6216)  
N-(2-Hydroxy-5-phenylbenzylidene)-2,6-dimethylaniline;  
C6H5.C6H3(OH).CH:N.C6H3(CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	diox/w	30°C	75%	U		K1=3.669	1986MBd (101137)	1964

\*\*\*\*\*

C21H21N2O8Cl H2L Demeclocycline CAS 64-73-3 (5759)  
7-Chloro-6-demethyltetracycline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl	37°C	0.15M	U			1985LBb (101181)	1965



$$B(\text{Mg}2\text{L})=7.605$$
$$K(Mg+HL)=3.47$$

\*\*\*\*\*

2-Methyl-5,6-dihydroxy-6-O-B-D-galactosyl-8-methoxy-naphtho-pyrone;

\*\*\*\*\*

Colchicine;

\*\*\*\*\*

3'-Adenylic acid, mono[2-(8-hydroxy-2-quinoliny)ethyl] ester;

\*\*\*\*\*

6-Fluoro-7-(5-nonyl-1,3,4-oxadiazol-2-ylsulphonyl)-4-quinolone-3-carboxylic acid;

Medium: 20% DMF/H<sub>2</sub>O, 0.1 M NaClO<sub>4</sub>.

\*\*\*\*\*

N,N'-Bis-(2-(N"-2-hydroxy-5-bromobenzyl)aminoethyl)malondiamide;

$$B(MgH-2L) = -14.95$$

\*\*\*\*\*

beta-Nicotinamide adenine dinucleotide;

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++      nmr R4N.X  22°C 0.10M U          K1=1.40          1985PHb (101296)1972
*****
C21H30N7O17P3      H4L      NADPH          CAS 2646-71-1 (7185)
Nicotinamide adenine dinucleotide phosphate reduced;
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++      nmr none    RT      0 U          K1eff=1.88       1995MMf (101373)1973
Medium: D2O, pH 8.5-9.5. Coordination site is the adenine phosphate. For
the ribose phosphate site, K1eff=1.95; for nicotinamide phosphate, K1=1.50
*****
C21H30N7O17P3      H4L      NADP          CAS 50443-29-3 (2783)
Nicotinamide adenine dinucleotide phosphate;
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++      nmr none    RT      0 U          K1eff=1.98       1995MMf (101379)1974
Medium: D2O, pH 8.5-9.5. Coordination site is the adenine phosphate. For
the nicotinamide phosphate, K1=0.91
*****
C21H31N5O8          H3L          (7254)
1,4,7,10-Tetraazacyclododecane-1-(4-nitrobenzyl)-4,7,10-triethanoic acid;
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++      gl  R4N.X  25°C 0.10M M          K1=9.53          1996CHc (101406)1975
Medium: 0.1 M Me4NCl.
*****
C21H31N5O8          H4L          (8194)
3,6,9,12,18-Pentaazabicyclo[12.3.1]heptadeca-1(18),14,16-triene-3,6,9,12-tetraethan
oic acid;
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++      EMF KCl    20°C 0.10M C          K1=4.7          1981SFa (101415)1976
Method: Pt/H2 electrode.
*****
C21H42N4O6S          L          CAS 503465-05-2 (9248)
4,12,18,21,26,29-Hexaoxa-1,7,9,15-tetraazabicyclo[13.8.8]hentriacontane-8-thione;
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++      gl  alc/w  25°C 95% C          K1=2.26          2004KV a (101460)1977
Medium: 95% MeOH/H2O, 0.01 M Et4NClO4.
*****

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C22H16N2O2                      H2L                      (4153)  
2'-Hydroxy-1-(5'-phenyl-phenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	KCl	rt	0.10M	U		K1eff=4.29 (pH 10)	1960DEa (101527)	1978

\*\*\*\*\*  
C22H17N4O14ClP2S2              H8L              ClPhosphonazo 3      CAS 1914-99-4      (2577)  
2,7-Bis((4-chloro-2-phosphophenyl)azo)chromotropic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	KNO3	25°C	0.20M	U		B(MgH4L)=47.4	1967BMc (101576)	1979

\*\*\*\*\*  
C22H19NO7S                      H3L                      CAS 450358-61-9      (8842)  
N-[2-(Carboxymethoxy)-4-(5-phenyl-2-thienyl)phenyl]-N-(carboxymethyl)glycine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	37°C	0.10M	C		K1eff=2.28	2002CSa (101683)	1980

Method: fluorimetry. Medium pH 7.05-7.40

\*\*\*\*\*  
C22H22N2O8                      L                      Methacycline              CAS 3963-95-9      (6020)  
Methacycline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl	37°C	0.15M	C		K1=5.142 B(MgH2L2)=25.196 B(MgHL2)=17.233 B(MgHL)=12.373	1988LBa (101723)	1981

\*\*\*\*\*  
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
Mg++	gl	diox/w	25°C	50%	U		K1=10.2	1972HUa (101732)	1982

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
Mg++	gl	NaCl	37°C	0.15M	U		B(MgH2L2)=23.995	1985LBb (101757)	1983

B(MgHL)=11.515

\*\*\*\*\*

C22H24N2O8 L Deoxycycline CAS 564-25-0 (2204)

Deoxycycline, 6-Deoxy-5-hydroxytetracycline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl	37°C	0.15M	C		K1=12.988 B(MgH2L2)=25.559 B(Mg2L)=8.546 B(MgHL2)=17.420	1983BBc (101765)	1984

\*\*\*\*\*

C22H24N2O8 H2L Tetracycline CAS 60-54-8 (2201)

Tetracycline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl04	25°C	0.10M	C		B(MgHL)=9.30	1996SJa (101803)	1985

Mg++	cal	oth/un	25°C			? U T H	Keff(Mg+L)=-3.01	19950Ca (101804)	1986
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Medium: 20mM Tris(hydroxymethyl)aminomethane, pH 9.5. DH=-11.76 kJ mol<sup>-1</sup>, DS=56.07 J K<sup>-1</sup> mol<sup>-1</sup>

Mg++	gl	NaNO3	25°C	0.10M	C	M	K1=8.40 K(MgL+Gly)=4.20	1989GAb (101805)	1987
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Mg++	gl	NaCl	37°C	0.15M	C		B2=8.698 B(MgHL)=12.657 B(MgH2L2)=25.275 B(MgHL2)=17.597 B(Mg2L)=7.740	1983BBc (101806)	1988
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C22H24N2O8 H4L CAS 91044-24-5 (1920)

meso-1,2-Diphenyl-1,2-diaminoethane-N,N,N',N'-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO3	20°C	0.10M	U		K1=4.66	1989SLa (101838)	1989

\*\*\*\*\*

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
Mg++	gl	KNO3	20°C	0.10M	U		K1=10.33	1989SLa (101853)	1990

Mg++	gl	KCl	25°C	0.10M	U		K1=10.40	19670Tb (101854)	1991
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\*\*\*\*\*

C22H24N2O9                      H2L      Oxotetracycline    CAS 79-57-2    (2202)  
Oxytetracycline, 5-Hydroxy-tetracycline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl	37°C	0.15M	C		K1=4.874    B2=9.560 B(MgH2L2)=24.095 B(MgHL2)=17.423 B(Mg2HL)=14.970 B(Mg2L)=8.346	1983BBc (101879)	1992

Mg++	gl	oth/un	20°C	0.01M	U		K1=3.8	1956ARd (101880)	1993
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C22H24N2O10                      H4L                      CAS 132796-79-3    (8113)  
1,2-Bis(2-aminophenoxy)ethane-N,N,N',N'-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	KCl	22°C	0.10M	C		K1=1.77	1980TSb (101892)	1994

\*\*\*\*\*

C22H25O3P                      L                      CAS 97745-35-2    (2069)  
Adamantyl(diphenoxy)phosphonyl

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sol	non-aq	25°C	100%	U		K1=3.84	1987TCa (101922)	1995

Medium: CH2Cl2, 2% MeCN. Metal as picrate  
\*\*\*\*\*

C22H44N2O7                      L      Cryptand 3,2,2H    (6607)  
1,10-Diaza-4,7,14,17,20,26,29-Heptaioxabicyclo[13.8.8]hentriacontane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	alc/w	25°C	95%	M		K1=<2	1990LNa (102412)	1996

Medium: 95% MeOH, 0.05 M Bu4NBr. For the 12,22-dihydroxy- analogue: K1=3.71  
\*\*\*\*\*

C22H44N2O8                      L      Cryptand 3,3,2    CAS 132162-57-3    (1762)  
Cryptand 3,3,2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	R4N.X	25°C	0.05M	C		K1=<2	1975LSc (102425)	1997

\*\*\*\*\*

C22H44N6O5S2                      L                      CAS 503465-08-5    (9241)  
9,20,23,28,31-Pentaoxa-1,4,6,12,14,17-hexaazabicyclo[15.8.8]tritriacontane-5,13-dithione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	alc/w	25°C	95%	C		K1=2.54	2004KVa (102435)	1998

Medium: 95% MeOH/H<sub>2</sub>O, 0.01 M Et<sub>4</sub>NClO<sub>4</sub>.

\*\*\*\*\*

C23H18O9S H4L Eriochrome cyan CAS 3564-18-9 (433)

4'-Hydroxy-3,3'-dimethyl-2''-sulfofuchson-5,5'-dicarboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	oth/un	25°C	0.10M	U		B(MgHL)=8.65	1975EPa (102624)	1999

\*\*\*\*\*

C23H23NO5 L CAS 218619-58-0 (7808)

Dibenzo-pyridino-18-crown-6;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	EMF	alc/w	25°C	100%	C		K1=2.84	2004ZTa (102654)	2000

Medium: 100% methanol, 0.05 M Bu<sub>4</sub>NClO<sub>4</sub>. Method: Ag electrode, competition with Ag<sup>+</sup> ion.

\*\*\*\*\*

C23H25NO5S L CAS 464185-98-6 (9292)

4'-[(2-Benzothiazole)ethenyl]-2:3-benzo-15-crown-5;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	non-aq	20°C	100%	C		K1=5.5	2003FFa (102689)	2001

Medium: CH<sub>3</sub>CN.

\*\*\*\*\*

C23H26N2O7 H2L (2559)

6-Desoxy-6-dimethyl-tetracycline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl	37°C	0.15M	C		K1=5.495 B2=9.307 B(MgHL)=13.074 B(MgL2)=19.325 B(MgH2L2)=26.566	1988LVa (102707)	2002

\*\*\*\*\*

C23H27N2O8I H2L CAS 6602-90-0 (361)

4-Methyltetracycline Iodide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KNO <sub>3</sub>	25°C	0.10M	U		K1=3.78 B2=6.36	1979HFa (102718)	2003

\*\*\*\*\*

C23H27N3O7 L Minocycline CAS 13614-98-7 (2203)

Minocycline, 6-Dimethyl-6-deoxy-7-dimethylaminotetracycline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl	37°C	0.15M	C		K1=5.886	1983BBc (102726)	2004

B(MgHL)=13.088  
B(MgH2L2)=26.728  
B(MgHL2)=17.905  
B(Mg2HL)=15.824

\*\*\*\*\*

C23H30N2O4 L CAS 361454-16-2 (8960)  
N-(Phenylmethylene)-4-(1,4,7,10-tetraoxa-13-azacyclopentadec-13-yl)benzamine;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ sp non-aq RT 100% C K1=2.64 2001AVa (102747)2005  
Method: spectrophotometric titration. Medium: acetonitrile.

\*\*\*\*\*

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  
-----  
Mg++ gl diox/w 25°C 13% C K1=5.55 2001CLa (102764)2006  
B(MgHL)=15.33  
B(MgH-2L)=-14.83

Medium: 13% v/v dioxane/H2O, 0.10 M KNO3.

\*\*\*\*\*

C24H20N4O14Cl2P2S2 H8L (4165)  
2,7-Bis(4'-chloro-5'-methyl-2'-phosphonophenylazo)chromotropic acid;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ sp KNO3 25°C 0.20M U 1967BMc (102914)2007  
B(MgH4L)=47.7

\*\*\*\*\*

C24H24N2O6 H4L CAS 385439-50-9 (9197)  
p-Xylylenediamine-N,N'-bis(o-hydroxyphenyl)ethanoic acid;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ gl NaCl 25°C 0.10M C K1=7.35 2004SGb (102944)2008  
B(MgHL)=16.59  
B(MgH2L)=24.85

Additional method: UV-visible spectrometry

\*\*\*\*\*

C24H24N2O8 H4L CAS 89593-26-0 (8632)  
N,N'-[1,2-Ethyndiylbis(2,1-phenylenemethylene)]bis[N-(carboxymethyl)]glycine;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ gl KCl 20°C 0.10M U K1=5.0 1984VSc (102948)2009

\*\*\*\*\*

C24H25O7P L (2067)  
Phenylphosphonyldibenzo-17-crown-6

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sol	non-aq	25°C	100%	U		K1=2.78	1987TCa (102963)	2010
Medium: CH2Cl2, 2% MeCN. Metal as picrate									
*****									
C24H26N2O8		H4L					CAS 89561-09-1	(8633)	
N,N'-[1,2-Ethenediylbis(2,1-phenylenemethylene)]bis[N-(carboxymethyl)]glycine;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	20°C	0.10M	U		K1=3.4	1984VSc (102973)	2011
*****									
C24H26N2O8		H4L					CAS 89561-11-5	(8635)	
N,N'-[1,2-Ethenediylbis(4,1-phenylenemethylene)]bis[N-(carboxymethyl)]glycine;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	20°C	0.10M	U		K1=2.4	1984VSc (102978)	2012
*****									
C24H28N2O2		L					CAS 101821-61-8	(9065)	
4-{2-[10-(2-Morpholinoethyl)-9-anthryl]methyl}morpholine;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	diox/w	25°C	40%	C		K1=3.04	2003GHb (103003)	2013
Method: fluorescence spectroscopy. Medium: 40% w/w dioxane/H2O, 0.05 M Et4NClO4.									
*****									
C24H28N2O8		H4L					CAS 89561-10-4	(8634)	
N,N'-[1,2-Ethanediybis(2,1-phenylenemethylene)]bis[N-(carboxymethyl)]glycine;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KCl	20°C	0.10M	U		K1=3.7	1984VSc (103006)	2014
*****									
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
Mg++	con	mixed	25°C	20%	C		K1=4.83	2003SIa (103107)	2015
Medium: 20% w/w propylene carbonate/ethylene carbonate.									
Mg++	vlt	alc/w	25°C	100%	C		K1=2.37	1987CBd (103108)	2016
Medium: methanol, 0.10 M Et4NI or Bu4NClO4. Method: polarography.									
Additional method conductivity in methanol: K1=2.71.									
*****									
C24H35NO9		L					CAS 330462-64-1	(8032)	
6,7-Dimethoxy-4-(1,4,7,10,13-pentaoxa-16-azacyclooctadec-16-ylmethyl)-2H-1-benzopyr									



an-2-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	sp	mixed	25°C	10%	C			K1=5.12	2001LWa (103240)	2017
------	----	-------	------	-----	---	--	--	---------	------------------	------

Method: fluorimetry. Medium: 10%v/v acetonitrile/H2O.

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C24H36O21		H6L						CAS 71735-94-9	(7414)	
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1,4,7,10,13,16,19,22,25-Nonaoxacycloheptacosane-2,3,11,12,20,21-hexacarboxylic acid;

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

Mg++	gl	R4N.X	25°C	0.10M	M			K1=2.8	1991FGb (103306)	2018
------	----	-------	------	-------	---	--	--	--------	------------------	------

Medium: 0.10 M Et4NN03.

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C24H42N6O12		H6L						(6546)		
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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
-------	-----	--------	------	------	-----	-------	----	----------	-----------	--------

Mg++	gl	NaCl04	25°C	0.20M	C			K1=8.3	1985KFa (103368)	2019
------	----	--------	------	-------	---	--	--	--------	------------------	------

Mg++	EMF	KCl	20°C	0.10M	C			K1=6.5	1981SFa (103369)	2020
------	-----	-----	------	-------	---	--	--	--------	------------------	------

Method: Pt/H2 electrode.

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C24H44O8		L						Dicy-24-crown-8	CAS 17455-23-1	(2401)
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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
-------	-----	--------	------	------	-----	-------	----	----------	-----------	--------

Mg++	con	mixed	25°C	20%	C			K1=4.46	2003SIa (103425)	2021
------	-----	-------	------	-----	---	--	--	---------	------------------	------

Medium: 20% w/w propylene carbonate/ethylene carbonate.

\*\*\*\*\*

C24H48N2O9		L						Cryptand 3,3,3	CAS 132162-61-9	(1761)
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Cryptand 3,3,3

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

Mg++	gl	R4N.X	25°C	0.05M	C			K1=<2	1975LSc (103462)	2022
------	----	-------	------	-------	---	--	--	-------	------------------	------

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C24H48N6O6S2		L						CAS 503465-10-9	(9242)	
--------------	--	---	--	--	--	--	--	-----------------	--------	--

9,12,23,26,31,34-Hexaoxa-1,4,6,15,17,20-hexaazabicyclo[18.8.8]hexatricosane-5,16-dithione;

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

Mg++	gl	alc/w	25°C	95%	C			K1=2.70	2004KVa (103502)	2023
------	----	-------	------	-----	---	--	--	---------	------------------	------

Medium: 95% MeOH/H2O, 0.01 M Et4NCl04.

\*\*\*\*\*

C25H21N3O3                    H2L     Xylidyl blue II     (5334)  
4-Hydroxy-3-(2-hydroxy-3-(2,4-dimethylaminophenylaminocarbonyl)-1-naphthyl)benzene;

-----  
Metal            Mtd Medium Temp Conc Cal Flags Lg K values            Reference ExptNo  
-----  
Mg++            sp   alc/w     ?     50% U            B2=9.79            1971SCb (103608)2024  
\*\*\*\*\*

C25H22O2P2                    L                    CAS 207-21-8     (2099)  
Methylenebis(diphenylphosphine oxide); Ph2P(O)CH2P(O)Ph2

-----  
Metal            Mtd Medium Temp Conc Cal Flags Lg K values            Reference ExptNo  
-----  
Mg++            con non-aq 25°C 100% U                    1971SYc (103626)2025  
K(MgI+L=MgL+I)=-0.96

Medium: CH3CN

\*\*\*\*\*  
C25H28N4O10                    L                    CAS 752-13-6     (2940)  
Tetraacetylriboflavine;

-----  
Metal            Mtd Medium Temp Conc Cal Flags Lg K values            Reference ExptNo  
-----  
Mg++            nmr non-aq 38°C 100% U            K1=1.74            1975LHa (103674)2026  
Medium: acetone. Using spectrophotometry. 25 C: K1=1.1

\*\*\*\*\*  
C25H29N07                    L     FQC                    CAS 215095-38-8     (8804)  
4'-(Dimethylamino)-2,7-(3,6,9-trioxaundecane-1,11-dioxy)flavone;

-----  
Metal            Mtd Medium Temp Conc Cal Flags Lg K values            Reference ExptNo  
-----  
Mg++            sp non-aq ns 100% C            K1=2.98            2000LXa (103679)2027  
Medium: acetonitrile. By fluorescence, K1=3.19.

\*\*\*\*\*  
C25H48N6O8                    H3L     Desferrioxamine CAS 70-51-9     (2488)  
Desferrioxamine B; NH2.((CH2)5.NOH.CO.C2H4.CO.NH)2.(CH2)5.NOH.CO.CH3

-----  
Metal            Mtd Medium Temp Conc Cal Flags Lg K values            Reference ExptNo  
-----  
Mg++            gl   KCl       25°C 0.20M C            K1=2.8            1999FEa (103798)2028  
B(MgHL)=14.66  
B(MgH2L)=23.85

-----  
Mg++            gl   NaNO3    20°C 0.1M U                    1963AEa (103799)2029  
K(Mg+HL)=4.30

\*\*\*\*\*  
C25H50N4O8S                    L                    CAS 503465-06-3     (9249)  
4,7,15,18,24,27,32,35-Octaoxa-1,10,12,21-tetraazabicyclo[19.8.8]heptatriacontane-11-thione;

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

-----  
Mg++ gl alc/w 25°C 95% C K1=3.16 2004KV a (103841)2030  
Medium: 95% MeOH/H2O, 0.01 M Et4NC104.

\*\*\*\*\*  
C26H25N09S 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
Mg++	sp	KNO3	25°C	0.10M	U		K1=6.89 B(MgHL)=10.90 K(MgL+OH)=2.43	1974Y0a (103941)	2031

\*\*\*\*\*  
C26H28N20S L (2155)  
1,13-Di-(8-quinolyl)-1,4,7,10,13-tetraoxatridecane; C9H6N.O.(CH2.CH2.O)4.C9H6N  
-----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	alc/w	25°C	100%	U		K1=4.99 B2=9.82 K3=4.63 K4=4.40	1977TMa (103977)	2032

Medium: MeOH

\*\*\*\*\*  
C26H28O4 H2L B(CH2AcAcCH2)2B (2253)  
3,5,16,18-Tetraoxo[7.7]metacyclophane ;Cyclo-(-C6H4.(CH2)2.CO.CH2.CO.(CH2)2-)2  
-----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	diox/w	24°C	50%	U		K1=5.5	1979ACa (104019)	2033

\*\*\*\*\*  
C26H31N08S2 L CAS 136195-71-6 (6832)  
Crown Ether Styryl Dye;  
-----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	non-aq	25°C	100%	U		K(Mg+cis-L) > 9.15 K(Mg+trans-L)=7.00	1992BFa (104033)	2034

Medium:CH3CN. Ligand:2-[2-(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopent  
aoxacyclopentadecin-16-yl)ethenyl]-3-(3-sulfopropyl)benzothiazolium betain  
\*\*\*\*\*  
C26H32N2O2 L CAS 588691-41-2 (9066)  
4-{2-[10-(2-Morpholinoethyl)-9-anthryl]ethyl}morpholine;  
-----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	diox/w	25°C	40%	C		K1=4.96 K(MgL+Mg)=3.08	2003GHb (104037)	2035

Method: fluorescence spectroscopy. Medium: 40% w/w dioxane/H2O, 0.05 M  
Et4NC104.

\*\*\*\*\*

C26H32N2S2 L CAS 677034-81-0 (9064)  
4-(2-{10-[2-(1,4-Thiazinan-4-yl)ethyl]-9-anthryl}ethyl)thiomorpholine;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ sp non-aq 25°C 100% C K1=5.08 2003GHa (104043)2036  
K(MgL+Mg)=2.92

Method: fluorescence spectroscopy. Medium: acetonitrile, 0.05 M Et4NC104.

\*\*\*\*\*

C26H34N4 L CAS 677034-80-9 (9063)  
1-(2-{10-[2-Piperazinoethyl]-9-anthryl}ethyl)piperazine;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ sp non-aq 25°C 100% C K1=>7 2003GHa (104072)2037  
K(MgL+Mg)=ca. 6

Method: fluorescence spectroscopy. Medium: acetonitrile, 0.05 M Et4NC104.

\*\*\*\*\*

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  
-----  
Mg++ gl KCl 25°C 0.10M M K1=3.2 1996MBb (104091)2038

\*\*\*\*\*

C26H34O8 H2L (3082)  
1,4-Bis(2-carboxybutoxyphenyl)-1,4-dioxabutane; (H00CCH(C4H9)O(C6H4)OCH2)2

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ gl alc/w 25°C 90% M K1=1.08 1998KLa (104105)2039  
Medium: 90% v/v MeOH/H2O, 0.1 M Me4NC1

\*\*\*\*\*

C26H52N6O7S2 L CAS 503465-16-5 (9245)  
4,12,20,26,29,34,37-Hepta-1,7,9,15,17,23-hexaazabicyclo[21.8.8]nonatriacontane-8  
,16-dithione;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ gl alc/w 25°C 95% C K1=3.11 2004KVa (104336)2040  
Medium: 95% MeOH/H2O, 0.01 M Et4NC104.

\*\*\*\*\*

C26H52N6O7S2 L CAS 503465-12-1 (9243)  
9,12,15,26,29,34,37-Hepta-1,4,6,18,20,23-hexaazabicyclo[21.8.8]nonatricontane-5,  
19-dithione;

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

Mg++ gl alc/w 25°C 95% C K1=2.77 2004KVa (104346)2041  
Medium: 95% MeOH/H2O, 0.01 M Et4NClO4.

\*\*\*\*\*

C27H29N010 H2L Daunorubicine CAS 23541-50-6 (5660)

Daunomycin;

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

Mg++ sp oth/un 20°C 0.15M U 1982KMd (104438)2042

K(Mg+HL)=3.7

\*\*\*\*\*

C27H32N05S+ L CAS 423763-94-4 (8997)

3-Ethyl-2-[4-(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-15-yl)butadien

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

Mg++ sp non-aq 25°C 100% C K1=5.95 2002GVc (104514)2043

Medium: acetonitrile, 0.01 M Et4NClO4.

\*\*\*\*\*

C27H33N07 L FLC CAS 223390-37-2 (8805)

2-[4-Dimethylaminophenyl]-6-methyl-3-(1,4,7,10-tetraoxacyclododec-2-ylmethoxy)-4H-1-Benzopyran-4;

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

Mg++ sp non-aq ns 100% C K1=3.38 2000LXa (104524)2044

Medium: acetonitrile. By fluorescence, K1=3.27.

\*\*\*\*\*

C27H33N9O15P2 H2L FAD CAS 146-14-5 (3521)

Flavin adenine dinucleotide;

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

Mg++ ix NaCl 23°C 0.1M U K1=2.02 1958WAa (104545)2045

\*\*\*\*\*

C27H47N3O6 L (8029)

Tripodal ionophore 3;

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

Mg++ sp non-aq 25°C 100% C 2001LFa (104622)2046

K(MgP+L=LiPL)=4.98

Method: Analyses by spectrophotometry. Medium: chloroform. P is picrate.

\*\*\*\*\*

C28H24O16S4 H8L CAS 206559-10-6 (7767)

25,26,27,28-Tetrahydroxycalix[4]arene-5,11,17,23-tetrasulfonic acid;

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

Mg++ cal oth/un 25°C 0.10M C H 2001BIa (104692)2047

K(Mg+H4L)=3.30

Medium: 0.10 m Na4H4L, pH=2. DH(Mg+H4L)=4.7 kJ mol<sup>-1</sup>.

\*\*\*\*\*

C28H34N2O6 HL CAS 83874-22-0 (6920)

Cezomycin;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ gl alc/w 25°C 100% C K1=5.2 B2=11.8 1994ABc (104755)2048  
Medium: MeOH; 0.1 M (C4H9)4NCF3SO3H

\*\*\*\*\*

C28H35N3O6 L CAS 114880-42-1 (7377)

3-(p-13-Aza-1,4,7,10-tetroxacyclopentadecan-13ylstyryl)-7-dimethylamino-1,4-benzoxazin-2-one;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ sp non-aq RT 100% C K1=2.75 1998ABc (104760)2049  
Medium: acetonitrile. Method: fluorescence spectroscopy.

\*\*\*\*\*

C28H35O7P L CAS 90275-27-7 (2068)

Adamantylphosphonyldibenzo-17-crown-6

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ sol non-aq 25°C 100% U K1=3.62 1987TCa (104766)2050  
Medium: CH2Cl2, 2% MeCN. Metal as picrate

\*\*\*\*\*

C28H36N2O2 L CAS 588691-42-3 (9067)

4-{3-[10-(3-Morpholinopropyl)-9-anthryl]propyl}morpholine;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ sp diox/w 25°C 40% C K1=7.08 2003GHb (104775)2051  
K(MgL+L)=6.76

-----

Method: fluorescence spectroscopy. Medium: 40% w/w dioxane/H2O, 0.05 M

Et4NClO4.

\*\*\*\*\*

C28H36N2O7S2 HL CAS 150196-54-6 (7735)

3-(3-Sulfopropyl)-2-[4-[N-(1,4,7,10,13-pentaoxa-16-azacyclooctadeca)]]styryl-benzotriazolium;

-----  
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ sp non-aq 18°C 100% C K1=1.6 1997LHa (104781)2052  
Medium: acetonitrile.

\*\*\*\*\*

C28H40O6 L CAS 29471-17-8 (1262)

2,3:11,12-Bis(4'-tert-butylbenzo)-1,4,7,10,13,16-hexaoxacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++		EMF non-aq	25°C	100%	U		K1=<1	1982MRb (104833)	2053
Medium: anhydrous propylene carbonate, 0.1M Et4NClO4									
*****									
C28H40O10		L				DiBz-30-crown10	CAS 104946-67-0	(1776)	
2,3:17,18-Dibenzo-1,4,7,10,13,16,19,22,25,28-decaoxacyclotriaconta-2,17-diene;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++		vlt non-aq	25°C	100%	C		K1=3.20	1991SSb (104869)	2054
Method: competitive complexation with Tl+; use of Tl(Hg)/Tl couple.									
Medium: acetonitrile, 0.05 M Et4NClO4.									
Mg++		EMF non-aq	25°C	100%	U		K1=2.89	1982MRb (104870)	2055
Medium: anhydrous propylene carbonate, 0.1M Et4NClO4									
*****									
C28H56N6O8S2		L					CAS 503465-18-7	(9246)	
4,12,15,23,29,32,37,40-Octaoxa-1,7,9,18,20,26-hexaazabicyclo[24.8.8]dotetracontane-8,19-dithione;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++		gl alc/w	25°C	95%	C		K1=2.04	2004KVa (105037)	2056
Medium: 95% MeOH/H2O, 0.01 M Et4NClO4.									
*****									
C28H56N6O8S2		L					CAS 503465-14-3	(9244)	
9,12,15,18,29,32,37,40-Octaoxa-1,4,6,21,23,26-hexaazabicyclo[24.8.8]dotetratricontane-5,22-dithio									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++		gl alc/w	25°C	95%	C		K1=2.15	2004KVa (105047)	2057
Medium: 95% MeOH/H2O, 0.01 M Et4NClO4.									
*****									
C29H35N05		L					CAS 201154-06-5	(7825)	
N-(1-Pyrenylmethyl)-1,4,7,10,13-pentaoxa-16-azacyclooctadecane;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++		sp mixed	25°C	90%	C			1997KKa (105097)	2058
							K(Mg(SCN)2+L)=2.71		
Method: fluorescence emission. Medium: MeOH/CHCl3 (9:1 v/v).									
*****									
C30H27N3O18S3		H9L				TRIMCAMS	CAS 77069-63-7	(5468)	
1,3,5-Tris(2,3-dihydroxy-5-sulfobenzoyl)carbamido)benzene;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

Mg++ gl KNO3 25°C 0.10M C 1982KRb (105203)2059

B(MgHL)=22.3

B(MgH2L)=27.9

\*\*\*\*\*

C30H30O5P2 L CAS 68402-79-9 (2624)

1,2:7,8-Dibenzo-3,6-diphospho-3,6-dioxo-3,6-diphenyl-15-crown-5

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

Mg++ con non-aq 22°C 100% U K1=2.88 1980YKa (105224)2060

Medium: MeCN

\*\*\*\*\*

C30H36N8O3 Furan-cryptand CAS 121954-37-8 (7451)

39,40,41-Trioxa-1,4,11,14,17,24,29,36-octaazapentacyclo[12.12.12.1.1.1]henLetetracontanadodecane;

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

Mg++ sp non-aq 25°C 100% U H B2=11.1 1996AAb (105250)2061

Medium: MeCN

tacyclo[12.12.12.1(6,9).1(19,22).1(31,34)]hentetetraconta-4,6,8....dodecaene

\*\*\*\*\*

C31H32N2O13S H6L Xylenol orange CAS 63721-85-5 (432)

5,5'-Bis-N,N-bis(carboxymethyl)aminomethyl-4'-hydroxy-3,3'-dimethylfuchsone-2"-sulfonic acid;

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

Mg++ gl KNO3 25°C 0.10M C M K1=8.96 1998GBa (105448)2062

K(MgL+H)=10.08

K(MgL+Mg)=5.28

K(Mg2L+H)=8.15

-----  
Mg++ sp KNO3 25°C 0.10M U K1=9.02 1974Y0a (105449)2063

K(Mg+HL)=7.10

K(Mg+H2L)=3.09

K(Mg+MgL)=6.14

K(Mg+MgHL)=2.6

\*\*\*\*\*

C32H30N2O8 H4L CAS 81374-97-2 (8216)

N,N'-[1,8-Naphthalenediylbis(3,1-phenylenemethylene)]bis[N-(carboxymethyl)]-glycine ;

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

Mg++ gl KCl 25°C 0.10M U K1=3.7 1982LVa (105587)2064

\*\*\*\*\*

C32H30N2O8 H4L CAS 81374-96-1 (8215)

N,N'-[1,8-Naphthalenediylbis(4,1-phenylenemethylene)]bis[N-(carboxymethyl)]-glycine ;



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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  KCl      25°C 0.10M U          K1=4.2          1982LVa (105592)2065
*****
C32H32N2O12      H6L      Cresolphthalexo CAS 2411-89-4 (1997)
o-Cresolphthalein-3,3'-bis(methyliminodiethanoic acid)
-----

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       gl  oth/un  25°C 0.10M U          K1=8.32          1981GMd (105607)2066
                                B(MgHL)=18.47
                                B(Mg2L)=12.05
-----
Mg++       gl  KCl      20°C 0.1M U          K1=8.9          1954AGb (105608)2067
                                K(Mg+HL)=7.5
                                K(Mg+H2L)=3.6
                                K(Mg+H3L)=2.2
                                K(Mg+MgL)=3.0

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K(Mg+MgHL)=1
*****
C32H37N09S      H4L      SemiMeThymolBlu (427)
3-(N,N-Di(carboxymethyl)-aminomethyl)thymolsulfonephthalein;
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       sp  KNO3     25°C 0.10M U          K1=7.05          1974Y0a (105662)2068
                                B(MgHL)=14.60
                                K(MgL+OH)=2.35
*****
C32H38N4O6Cl2      H2L                      (7214)
7,16-Bis((5-chloro-8-hydroxy-7-quinolinyl)methyl)-1,4,10,13-tetraoxa-7,16-diazacycl
ooctadecane;
-----

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```

-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       cal alc/w  25°C 100% U   H          K(Mg+H2L)=6.82  1996BBf (105688)2069
Medium: MeOH; 0.1 M Me4NCl. DH(K)=-2.5 kJ mol-1. Data also for similar
lariat ligands with substituted oxine side chains
*****
C32H40N4O4      L                      CAS 340963-90-8 (8926)
8,8'-[1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diylbis(methylene)bisquinol
ine;
-----

```

```

-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Mg++       cal alc/w  25°C 100% C   H          K1=4.02          2001DXa (105712)2070
Medium: MeOH. DH(K1)=9.9 kJ mol-1, DS(K1)=110 J K-1 mol-1.
*****

```

C32H40N4O6 H2L CAS 254900-30-6 (8916)  
7,16-Bis(8-hydroxyquinoline-7-ylmethyl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K	values	Reference	ExptNo
Mg++	cal	alc/w	25°C	100%	C	H			K(Mg+H2L)=5.7	1999SBg (105722)	2071

Medium: MeOH.  $\Delta H(K)=10.7 \text{ kJ mol}^{-1}$ ,  $\Delta S(K)=145 \text{ J K}^{-1} \text{ mol}^{-1}$ .

\*\*\*\*\*

C32H43N2O7S HL CAS 189057-31-6 (7756)  
3-(4-Carboxybutyl)-2-[4-[N-(1,4,7,10,13-pentaoxa-16-azacyclooctadeca)]]styryl-benzo  
thiazolium;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	non-aq	18°C	100%	C		K1=2.1	1997LHa	(105754)2072

Medium: acetonitrile.

\*\*\*\*\*

C32H49N9O7                      HL              KLAHFG                      CAS 188184-11-4    (5653)

Lysyl-leucyl-alanyl-histidyl-phenylalanyl-glycine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	NaCl	20°C	0.15M	U	M	K1=1.45	1983VDb	(105810)2073

\*\*\*\*\*

C33H39N11	L	Pyr-cryptand	CAS 141258-00-6 (7452)
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1,4,12,15,18,26,31,39,42,43,44-Undecaazapentacyclo[13.13.13.1.1.1]tetratetracontapentadecane:

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	non-aq	25°C	100%	U	H	B2=12.6	1996AAb	(105915)2074

Medium: CH<sub>3</sub>CN  
.13.1(6,10).1(20,24).1(33,37)]tetratetraconta-4-6-8-10(44),11...pentadecaene

\*\*\*\*\*

C33H41N3O6 L (8027)

Tripodal ionophore ;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K	values	Reference	ExptNo
Mg++	sp	non-aq	25°C	100%	C					2001L	Fa (105921)2075

 $K(\text{MgP}+\text{L}=\text{LiPL})=4.04$ 

Method: Analyses by spectrophotometry. Medium: chloroform. P is picrate.

\*\*\*\*\*

C34H38N2O14                      H2L                      (7072)

7,16-Bis(3-carboxy-6-methoxy-2-oxo-2H-1-benzopyran-7-yl)-1,4,10,13-tetraoxa-diazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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-----  
Mg++ sp none RT 0 U K1=2.10 1994CGa (106027)2076  
Method: fluorimetry

\*\*\*\*\*  
C34H38N4O6 H4L (3525)  
Haematoporphyrin IX;  
-----

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

Mg++ sp oth/un 25°C var U T H 1973ACb (106032)2077  
K1eff=1.34

Additional method: spectroscopy. pH=7.4, K1(30 C)=1.40, K1(35 C)=1.40,  
K1(40 C)=1.42, DH=4.76 kJ mol<sup>-1</sup>  
-----

Mg++ sp oth/un 25°C var U T H 1973ACb (106033)2078  
K1eff=1.17

Additional method: spectroscopy. pH=8.2, K1(30 C)=1.27, K1(35 C)=1.44,  
K1(40 C)=1.51, DH=40.88 kJ mol<sup>-1</sup>  
-----

Mg++ sp oth/un 25°C var U T H 1973ACb (106034)2079  
K1eff=1.10

Additional method: spectroscopy. pH=9.0. K1(30 C)=1.04, K1(35 C)=0.88,  
K1(40 C)=0.75, DH=39.71 kJ mol<sup>-1</sup>  
-----

\*\*\*\*\*  
C34H44N4O6 H2L CAS 254900-31-7 (8917)  
7,16-Bis(5-methyl-8-hydroxyquinoline-7-ylmethyl)-1,4,10,13-tetraoxa-7,16-diazacyclo  
octadecane;  
-----

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

Mg++ cal alc/w 25°C 100% C H 1999SBg (106072)2080  
K(Mg+H2L)=5.02

Medium: MeOH. DH(K)=13.9 kJ mol<sup>-1</sup>, DS(K)=143 J K<sup>-1</sup> mol<sup>-1</sup>.  
-----

\*\*\*\*\*  
C34H53O8Br H2L CAS 38784-08-6 (2336)  
5-Bromolasalocid;  
-----

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

Mg++ gl alc/w 25°C 100% M 1988JTa (106095)2081  
K(Mg+HL)=3.89  
K(Mg+2HL)=6.3

Medium: MeOH  
-----

\*\*\*\*\*  
C34H54O8 H2L Lasalocid CAS 25999-20-6 (2335)  
Lasalocid acid;  
-----

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

Mg++ nmr non-aq 20°C 100% C 1998MLa (106118)2082

K(Mg+HL)=-1.0

Medium: CD3OD. Method: 13C nmr.

Mg++ dis non-aq 25°C 100% U 1993LPa (106119)2083

K(Mg+2HL=MgL2+2H)=-9.7

Method: extraction into CHCl3. K is for Mg(aq)+2HL(org)=MgL2(org)+2H(aq).

Mg++ gl alc/w 25°C 100% M 1988JTa (106120)2084

K(Mg+HL)=4.20

K(Mg+2HL)=6.7

Mg++ cal alc/w 25°C 100% U H 1988PPa (106121)2085

Medium: MeOH. DH(MgL)=27.5 kJ mol<sup>-1</sup>; DS=173. DH(MgL2)=27.4; DS=172

Mg++ gl alc/w 25°C 100% U 1982BDc (106122)2086

K(Mg+4HL)=4.12

K(Mg+5HL)=6.07

Medium: MeOH

\*\*\*\*\*

C35H45N9 L CAS 312304-65-7 (7962)

29,32,35-TriMe-1,14,29,32,35,38,39,40,41-Nonaazahexacyclohentetraconta-3,5,7,8,10,12,16,18,20,21,

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

Mg++ gl R4N.X 25°C 0.10M U K1=4.1 2001BBa (106200)2087

K(MgL+H)=9.9

K(MgHL+H)=9.1

Medium: 0.10 M NMe4NO3.

\*\*\*\*\*

C36H42N8 L Xylyl-cryptand CAS 172881-87-7 (7456)

1,4,12,15,18,26,31,39-Octaazapentacyclo[13.13.13.1.1.1]tetratetracontadecane;

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

Mg++ sp non-aq 25°C 100% U K1=4.26 1996AAAd (106316)2088

B(Mg2L)=7.5

Medium: CH3CN. L is 11,4,12,15,18,26,31-Octaazapentacyclo[13.13.13.1(6,10).

1(20,24).1(33,37)]tetratetraconta-4,6,8,10(44),11,18,20,22,24(43).....

\*\*\*\*\*

C36H44O7P2 L (5725)

1,17-Di(diphenylphosphinyl)-3,6,9,12,15-pentaoxaseptadecane;

Ph2PO.C2H4(O.C2H4)4OC2H4POPh2

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

Mg++ cal non-aq 25°C 100% U K1=3.33 B2=4.82 1991SGa (106331)2089

Medium: CH3CN; Mg as Mg(NCS)2

\*\*\*\*\*

C36H46N4 L (9018)

2,3,6,7,11,12,17,18-Octaethylcorphycene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	sp	non-aq	RT	100%	C	M		K(MgL+py)=3.00 K(Mg(py)+py)=<0	2002FSa (106351)	2090

Medium: toluene.

\*\*\*\*\*

C36H46N4 L CAS 130351-26-7 (9017)  
2,3,6,7,12,13,16,17-Octaethylporphycene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	sp	non-aq	RT	100%	C	M		K(MgL+py)=3.34 K(Mg(py)+py)=<0	2002FSa (106355)	2091

Medium: toluene.

\*\*\*\*\*

C36H46N4 L (9019)  
2,3,7,8,11,12,17,18-Octaethylhemiporphycene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	sp	non-aq	RT	100%	C	M		K(MgL+py)=3.46 K(Mg(py)+py)=<0	2002FSa (106359)	2092

Medium: toluene.

\*\*\*\*\*

C36H46N4 H2L Octaethylporph. CAS 2683-82-1 (1794)  
2,3,7,8,12,13,17,18-Octaethyl-21H,23H-porphine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	sp	non-aq	RT	100%	C	M		K(MgL+py)=3.66 K(MgL(py)+py)=<0	2002FSa (106366)	2093

Medium: toluene.

\*\*\*\*\*

C36H47N3O6 L (8028)  
Tripodal ionophore 2;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	sp	non-aq	25°C	100%	C			K(MgP+L=LiPL)=3.82	2001LFa (106372)	2094

Method: Analyses by spectrophotometry. Medium: chloroform. P is picrate.

\*\*\*\*\*

C36H58N10O10S4 H5L CAS 136685-24-0 (6875)  
(1-Cys-,1'-Cys,4-Cys-,4'-Cys)-dithiobis(Ac-1-Cys-Pro-D-Val-4-Cys-NH2);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	non-aq	20°C	100%	U		K1=4.07	1993EAa (106440)	2095
Method: circular dichroism. Medium: MeCN, ClO4- *****									
C36H62O11		HL		Monensin			CAS 17090-79-8 (737)		
Monensin, 1,6-dioxaspiro[4,5]decane derivative;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	ISE	alc/w	25°C	100%	M		K1=5.20	1984CTa (106488)	2096
Medium: MeOH. In EtOH K1=9.10									
Mg++	ISE	non-aq	25°C	100%	M		K1=6.88	1984CTa (106489)	2097
Medium: N,N-dimethylformamide. In DMSO K1=5.40 *****									
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
Mg++	sp	R4N.X	25°C	0.10M	U		K1=10.4 K(Mg+HL)=7.1 K(Mg+H2L)=2.8 K(MgHL+Mg)=1.5 K(MgL+Mg)=5.6	1996BGa (106579)	2098
Medium: Me4NCl									
Mg++	sp	oth/un	20°C	0.01M	U		Keff=9.54	1986VDa (106580)	2099
Medium: ammonia buffer. Method: FIA									
Mg++	sp	KN03	25°C	0.10M	U		K1=8.87 B(MgHL)=19.67 B(MgH2L)=26.71 K(Mg+MgL=Mg2L)=5.80 K(Mg+MgHL=Mg2HL)=2.3	1974Y0a (106581)	2100
Mg++	sp	oth/un	?	?	U		K(Mg+H3L)(?)=4.09	1971ANb (106582)	2101
*****									
C38H42N4O24S4		H9L					(5477)		
1,5,10,14-Tetrakis(2,3-dihydroxy-5-sulfobenzoyl)-1,5,10,14-tetraazatetradecane;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	KN03	25°C	0.10M	C		B(MgH4L)=50.5 B(MgH3L)=42.5	1982KRb (106669)	2102

B(MgH2L)=34.3

B(Mg2L)=19.9

\*\*\*\*\*

C40H36O4P2 HL CAS 126763-08-4 (7791)

1,2-Bis[2-(diphenylphosphinylmethyl)phenoxy]-ethane;

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

Mg++ EMF non-aq 25°C 100% C K1=9.21 1997PKc (106729)2103

Medium: nitrobenzene

\*\*\*\*\*

C40H36O5P2 L CAS 86341-96-0 (5724)

1,7-Di(2-diphenylphosphinyl)phenyl-1,4,7-trioxahheptane;Ph2PO.C6H4.O.C2H4.O.C6H4.POPh2

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

Mg++ EMF non-aq 25°C 100% C K1=11.21 1997PKc (106740)2104

Medium: nitrobenzene

-----  
Mg++ EMF non-aq 25°C 100% C K1=12.82 1997PKc (106741)2105

Medium: nitrobenzene

\*\*\*\*\*

C42H40O5P2 L CAS 163172-12-6 (2080)

Bis((2-diphenylphosphinylmethyl)phenyl)diethyleneglycol ether;

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

Mg++ EMF non-aq 25°C 100% C K1=9.86 1997PKc (106921)2106

Medium: nitrobenzene

\*\*\*\*\*

C44H30N4O12S4 H4L (6422)

5,10,15,20-Tetra(p-phenylsulfonic acid)porphin;

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

Mg++ sp mixed 25°C 80% U 1991JJJa (107082)2107

K(Mg+H2L=MgL+2H)=-3.96

In 80% v/v DMSO/H2O, 0.1 M (KClO4+KOH).

\*\*\*\*\*

C44H44O6P2 L CAS 126763-09-5 (7790)

1,8-Bis[2-(diphenylphosphinylmethyl)phenoxy]-3,6-dioxaoctane;

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

Mg++ EMF non-aq 25°C 100% C K1=8.39 B2=13.34 1997PKc (107125)2108

Medium: nitrobenzene

\*\*\*\*\*

C44H50N2O10 H2L CAS 329183-28-0 (8807)

25,27-Bis(carboxymethoxy)-26,28-bis[(N,N-diethylaminocarbonyl)methoxy]calix[4]arene

;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	non-aq	25°C	100%	C		K1=6.42 B(Mg2L)=9.97 B(Mg2HL2)=25.13	2000ABb (107140)	2109

Medium: MeOH, 0.05 M Et4NClO4.

\*\*\*\*\*

C44H52N4O8 L CAS 246035-33-6 (2925)  
25,27-Bis(N,N-diethylaminocarbonylmethoxy)-26,28-bis(aminocarbonylmethoxy)calix[4]arene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	non-aq	25°C	100%	C		K1=1.1	1999USa (107155)	2110

Medium: MeOH, 0.10 M Et4NCl

\*\*\*\*\*

C45H39O3P3 L CAS 73218-92-5 (5679)  
1,3,5-Tris(diphenylphosphinylmethyl)-benzene; C6H3(CH2.PO(C6H5)2)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	con	non-aq	25°C	100%	U	I M		1984YSb (107210)	2111

K(MgI+L)=2.5

Medium: tetrahydrofuran:CHCl3 1:1

\*\*\*\*\*

C45H48N3O3P3 L CAS 90179-28-5 (5682)  
N,N',N''-tris(Diphenylphosphinylmethyl)-1,4,7-triazacyclononane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	con	non-aq	25°C	100%	U	I		1984YSb (107223)	2112

K(MgI+L)=2.9

Medium: tetrahydrofuran:CHCl3 1:1. In CH3CN:CHCl3 1:1 K=2.8

\*\*\*\*\*

C46H46N2O4 L CAS 185118-12-1 (7824)  
N,N'-Bis(1-pyrenylmethyl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	mixed	25°C	90%	C			1997KKa (107246)	2113

K(Mg(SCN)2+L)=3.15

Method: fluorescence emission. Medium: MeOH/CHCl3 (9:1 v/v).

\*\*\*\*\*

C46H46N2O16 H4L (7071)  
7,16-Bis[2-(2,4-dicarboxyphenyl)-5-methoxy-1-benzofuran-6-yl]-tetraoxa-7,16-diazacyclooctadecane;

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



-----  
Mg++ sp none RT 0 U K1=1.40 1994CGa (107255)2114  
Method: fluorimetry

\*\*\*\*\*  
C46H48O8P2 L CAS 119494-80-3 (7785)  
1,14-Bis[2-(diphenylphosphinyl)phenoxy]-3,6,9,12-tetraoxatetradecane;  
-----

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ EMF non-aq 25°C 100% C K1=9.21 1997PKc (107275)2115  
Medium: nitrobenzene

\*\*\*\*\*  
C46H58O6 HL (6716)  
Calix[4]arene-0(1)-ethanoic acid;  
-----

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ gl alc/w 25°C 100% C K1=6.4 1993ABb (107294)2116  
B(MgHL)=18.4  
B(MgH2L)=30.8  
B(MgH3L)=41.8

Medium: MeOH, 0.01 M Et4NClO4. Data also for tert-butyl and ethyl esters  
\*\*\*\*\*  
C47H75NO17 H2L Nystatin CAS 1400-61-9 (5799)  
Nystatin, Mycostatin;  
-----

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ sol mixed 25°C 1% U K1=2.87 B2=4.45 1985B0a (107337)2117  
Medium: 1 % v/v DMF/water; 3 M NaClO4

\*\*\*\*\*  
C48H52O8P2 L CAS 126763-11-9 (7786)  
1,14-Bis[2-(diphenylphosphinylmethyl)phenoxy]-3,6,9,12-tetraoxatetradecane;  
-----

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ EMF non-aq 25°C 100% C K1=8.54 1997PKc (107369)2118  
Medium: nitrobenzene

\*\*\*\*\*  
C48H52O9P2 L CAS 198490-22-1 (7788)  
1,17-Bis[2-(diphenylphosphinyl)phenoxy]-3,6,9,12,15-pentaoxaheptadecane;  
-----

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Mg++ EMF non-aq 25°C 100% C K1=11.57 1997PKc (107373)2119  
Medium: nitrobenzene

\*\*\*\*\*  
C48H60O8 H2L R-Bu-Calixarene CAS 147513-53-9 (6705)  
4-tert-Butylcalix[4]arenedicarboxylic acid;  
-----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	alc/w	25°C	100%	C		K1=7.3 B(Mg2L)=11.0	1993ABb (107398)	2120

Medium: MeOH, 0.01 M Et4NClO4. Data also for di-tert-butyl ester

\*\*\*\*\*

C48H64O4 L CAS 105880-81-7 (8677)  
tert-Butylcalix-4-arene tetramethyl ether;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	non-aq	25°C	100%	C		K1=3.03	2004BCb (107419)	2121

Medium: acetonitrile, 0.01 M Et4NClO4.

\*\*\*\*\*

C48H96N2O4 L CAS 72469-41-1 (5351)  
N,N-Dioctadecyl-N',N'-dipropyl-3,6-dioxaoctanediamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	ISE	oth/un	21°C	100%	C		K1=9.7	1999CPa (107445)	2122

Medium: PVC/DOS ion selective electrode membrane (DOS: bis(2-ethylhexyl)-sebacate). Data for structurally related ionophores.

\*\*\*\*\*

C52H64O12 H4L R-Bu-Calixarene CAS 113215-72-8 (6704)  
5,11,17,23-Tetra-(t-butyl)-25,26,27,28-tetrakis[(hydroxycarbonyl)methoxy]calix[4]arene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	alc/w	25°C	100%	C		K1=11.02 B(MgHL)=21.43 B(MgH2L)=30.52 B(MgH3L)=37.96	1993ABb (107486)	2123

In methanol; 0.01 M (CH3CH2)4NClO4

\*\*\*\*\*

C52H68N4O8 CAS 150588-24-2 (3074)  
25,26,27,28-Tetrakis-(N,N-diethylaminocarbonylmethoxy)calix[4]arene; L

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	non-aq	25°C	100%	C		K1=<1	1999USa (107496)	2124

Medium: MeOH, 0.10 M Et4NCl.

\*\*\*\*\*

C52H68N4O8 L (4823)  
25,27-Bis(N,N-diethylaminocarbonylmethoxy)-26,28-bis(N-butylaminocarbonylmethoxy)calix[4]arene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	non-aq	25°C	100%	C		K1=<1	1999USa (107504)	2125

Medium: MeOH, 0.10 M Et4NCl

\*\*\*\*\*

C52H69N3O6 H2L CAS 136158-03-7 (9132)

Tetra-t-butyl-calix[4]azacrown dione;

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

Mg++ sp non-aq 20°C 100% C K1=5.13 20030Aa (107521)2126

Medium: 100% acetonitrile, 0.01 M Et4NClO4.

\*\*\*\*\*

C54H90N6O18 L Valinomycin CAS 2001-95-8 (2142)

Valinomycin, Potassium Ionophore

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

Mg++ dis non-aq 25°C 100% U M 1996BSa (107545)2127

K(Mg2+, 2A-+L=Mg2+, L, 2A-)=3.87

Medium: CHCl3; 0.1 M picrate. Host-guest complex. A=(O2N)3C6H2O

Also data for host-guest complexes with several other salts, and L=nonactin.

\*\*\*\*\*

C56H80O8 L (9259)

5,11,17,23-Tetra(t-butyl)-25,26,27,28-tetramethoxyethoxycalix[4]arene;

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

Mg++ sp non-aq 25°C 100% C K1=3.27 2004BCb (107611)2128

Medium: acetonitrile, 0.01 M Et4NClO4.

\*\*\*\*\*

C58H78O11 HL CAS 465527-74-6 (9287)

7,13,19,25-Tetra-t-butyl-28-methoxy-27,29,30-triethylacetate-2,3-dihomo-3-oxacalix[4]arene;

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

Mg++ sp alc/w 25°C 100% C K1=4.1 2001MAa (107619)2129

Medium: MeOH, 0.01 M Et4NCl.

\*\*\*\*\*

C58H80O10 L (9264)

5,11,17,23-Tetra-t-butyl-25,27-di(2-methoxyethoxy)-26,28-di(ethylacetate)calix[4]arene;

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

Mg++ sp non-aq 25°C 100% C K1=3.01 2004BCb (107628)2130

Medium: acetonitrile, 0.01 M Et4NClO4.

\*\*\*\*\*

C60H82N2O10 L CAS 155377-20-1 (8806)

5,11,17,23-Tetra-butyl-25,27-bis(carboxymethoxy)-bis[(N,N-diethylaminocarbonyl)methoxy]calix[4]arene

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	gl	non-aq	25°C	100%	C		B(Mg2L)=11.62	2000ABb (107663)	2131
Medium: MeOH, 0.05 M Et4NClO4.									
*****									
C60H84N4O8		L					CAS 246035-32-5 (2735)		
25,27-Bis(N,N-diethylaminocarbonylmethoxy)-26,28-bis(aminocarbonylmethoxy)-t-butylcalix[4]arene;									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	non-aq	25°C	100%	C		K1=1.5	1999USa (107676)	2132
Medium: MeOH, 0.10 M Et4NCl									
*****									
C62H84O14		L					CAS 135581-11-2 (8630)		
9,23-Dioxpentacyclo[23.3.1.13,7.111.15.117.21]dotriacontane, ethanoic acid derivative;									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	non-aq	25°C	100%	C		K1=2.2	1991ACc (107690)	2133
Medium: acetonitrile, 0.01 M Et4NClO4.									
*****									
C62H111N11O12		L					CAS 59865-13-3 (9048)		
Cyclosporin A;									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	oth	non-aq	25°C	100%	C		K1=4.7 B2= 8.70	2003CGa (107716)	2134
Method: CD spectroscopy. Medium: acetonitrile. Alternative model: K1=4.8, K2=4.4.									
*****									
C68H100N4O8		L					CAS 246035-35-8 (3034)		
25,27-Bis(N,N-diethylaminocarbonylmethoxy)-26,28-bis(N-butylaminocarbonylmethoxy)-t-butylcalix[4]									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	non-aq	25°C	100%	C		K1=<1	1999USa (107801)	2135
Medium: MeOH, 0.10 M Et4NCl									
*****									
C69H102N4O9		L					CAS 116352-85-3 (9286)		
para-t-Butyldihomooxacalix[4]arene tetra(diethyl)amide;									
-----									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Mg++	sp	alc/w	25°C	100%	C		K1=2.6	2004MFa (107830)	2136
Medium: MeOH, 0.01 M Et4NCl.									
*****									

C77H82O9 L CAS 253317-20-3 (9288)  
p-Tert-butylldihomooxalix[4]arene tetraphenyketone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	sp	alc/w	25°C	100%	C	I		K1=4.0	1999MAb (107890)	2137

Medium: MeOH, 0.01 M Et4NCl. In acetonitrile, K1=4.4.

C96H144O24 L CAS 169888-22-6 (7534)  
C-Undecylcalix[4]resorcinarene octa-alpha-(methyl ethanoate);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	dis	non-aq	25°C	100%	U			K=4.24	1995FDa (107961)	2138

Medium: CDCl3. Method: by H2O/CDCl3 extraction of picrate salt.  
K: MA(org)+L(org)=MLA(org) where A=picrate.

C112H120N4O16P4 L CAS 195455-62-0 (9276)  
1,21,23,25-Tetrapentyl-7,11,15,28-tetra[(diphenylphosphinyl)acetamidomethylene]  
cavitand;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	ISE	NaCl	rt	0.01M	C			K1=14.4	2003MGa (107989)	2139

Method: segmented sandwich membrane ISE.  
Phosphonic acid diethyl ester derivative: K1=16.5

C114H198N6O73 L CAS 571203-66-2 (9254)  
4,13-Bis(8-(6-deoxy-beta-cyclodextrin-6-yl)aminooctylamidomethyl)-4,13-diazatrioxac  
yclopentadecan

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	gl	R4N.X	25°C	0.10M	C			K1=2.95 K(Mg+HL)=2.53 K(Mg+H2L)=ca.2	2003WWa (107998)	2140

Medium: 0.10 M Et4NClO4.

C120H192O24 L CAS 175349-58-3 (7495)  
C-Undecylcalix[4]resorcinarene octa-alpha-(tert-butyl ethanoate);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Mg++	dis	non-aq	25°C	100%	U			K=4.28	1995FDa (108004)	2141

Medium: CDCl3. Method: by H2O/CDCl3 extraction of picrate salt.  
K: MA(org)+L(org)=MLA(org) where A=picrate.

C120H200N8O16 L CAS 169888-21-5 (7490)

C-Undecylcalix[4]resorcinarene octa-alpha-(N,N-diethyl acetamide);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	dis	non-aq	25°C	100%	U				1995FDa (108015)	2142
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K=5.73

Medium: CDC13. Method: by H2O/CDC13 extraction of picrate salt.

K: MA(org)+L(org)=MLA(org) where A=picrate.

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Polymer (1877)

4-Bis(carboxymethyl)-iminomethylene-oligostyrene; (C13H15N04)n

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	gl	KN03	25°C	0.10M	U			K1=4.19	1980YTb (108045)	2143
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(H2L)n: (.CH2.CH.C6H4.CH2.N(CH2.COOH)2)n where n=6-8

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Polymer (5383)

4-Polyvinyl-N-benzyliminodiethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	EMF	oth/un	?	?	U			K1=2.11	1966HEa (108051)	2144
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Polymer H2L X-14885A (4547)

Antibiotic X14885A, calcium ionophore

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	gl	alc/w	25°C	100%	U			K1=7.1	1989ABb (108073)	2145
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Medium: MeOH, I=0 M. When I=0.1 M, K=5.2

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Polymer H2L (8999)

Bacteriorhodopsin;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	ISE	oth/un	22°C	dil	C				1995YAa (108081)	2146
------	-----	--------	------	-----	---	--	--	--	------------------	------

K1eff=4.48

Method: Ca ion selective electrode. Competition with Ca. Medium pH 3.9.

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Polymer Calmodulin CAS 73298-54-1 (2957)

Calmodulin

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Mg++	ISE	KCl	25°C	0.11M	C	H		K1=4.36 B2=7.49	1989HGa (108105)	2147
------	-----	-----	------	-------	---	---	--	-----------------	------------------	------

K3=3.13

K4=2.70

In PIPES buffer, pH 7.0. DH(B4)=31.6 kJ mol<sup>-1</sup>; DS(B4)=360.9.

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Polymer DNA (4185)  
Deoxyribonucleic acid;

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

Mg++ sp NaCl04 25°C 0.10M C I 1994SDb (108139)2148

K1eff=3.30

At pH 7.0. For I=0.01 M NaCl04, pH 7.0, K1eff=4.11.

-----  
Mg++ sp NaCl ? .002M U 1959SBa (108140)2149

\*K=5.3(calf thymus)

\*K decreases greatly with increasing Na+ concentration, not clearly defined

-----  
Mg++ oth NaCl 5°C 0.20M U 1958ZDa (108141)2150

K'=2.45(calf thymus)

Method: dialysis. See reference for definitions

-----  
Mg++ oth NaCl 25°C 0.20M U T 1957WNa (108142)2151

K'=1.92(calf thymus)

Method: dialysis. K'=2.10(I=0.15). See reference for definitions

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Polymer (5379)  
Dextran derivative of N-propyliminodiethanoic acid;

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

Mg++ gl oth/un 20°C 0.10M U K1=3.74 1968VGa (108161)2152

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Polymer (4181)  
Phosphatidic acid;

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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Mg++ gl oth/un 24°C 0.10M U K1=4.1 1966AKa (108269)2153

\*\*\*\*\*

Polymer (4183)  
Phosphatidylserine;

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

Mg++ gl R4N.X 20°C 0.10M U K1=4.3 1965HFb (108276)2154

K(Mg+HL)=3.8

Medium: Pr4NI

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Polymer (1642)  
Polymethacrylic acid;

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

Mg++ gl NaNO3 20°C 0.05M U 1964MLa (108375)2155  
\*K'=-6.2

See reference for definitions

\*\*\*\*\*

Polymer Elastase CAS 39445-21-1 (7314)  
Porcine pancreatic elastase;

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

Mg++ oth oth/un 25°C 0.15M U 1980JMb (108386)2156  
K1eff=3.48

Medium: 0.1 M KCl, 0.05 M MOPS, pH 6.85. Method: enhancement of Tb lumin-  
escence

\*\*\*\*\*

Polymer (4204)  
Pyruvate kinase;

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

Mg++ sp R4N.X 25°C 0.10M U 1966SSc (108399)2157  
K'=3.04

Medium: Me4NCl

-----  
Mg++ nmr oth/un 24°C 0.10M U 1965MCc (108400)2158  
K'=3.42

Medium: 0.1 M KCl, 0.02 Tris. By kinetics: K'=3.4. See reference for defn.

-----  
Mg++ sp R4N.X 25°C 0.10M U 1963SMb (108401)2159  
K'=3.28

Medium: 0.1 M KCl, 0.05 Tris

\*\*\*\*\*

Polymer RNA (4205)  
Ribonucleic acid;

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

Mg++ nmr oth/un 25°C 0.02M C H 19960Ca (108413)2160  
K1eff=4.41

Method: 25Mg nmr. Medium: 0.02 M Tris, pH 7.5. Ligand is Poly(A)xPoly(U)-  
-RNA. DH=-65.3 kJ mol<sup>-1</sup>, DS=-117 J K<sup>-1</sup> mol<sup>-1</sup>. Data for other RNA variants.

-----  
Mg++ oth NaCl 25°C 0.20M U 1957WNa (108414)2161  
K'=2.09(calf liver)

Method: dialysis. See reference for definition

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Polymer (4182)  
Triphosphoinositide;

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
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2001ISb K Idriss, H Sedaira, H Ahmed; *Talanta*, 54, 369 (2001)  
 2001LFa H-J Lu, Y-T Fan, Y-J Wu; *Polyhedron*, 20, 3281 (2001)  
 2001LWa L-D Li, Y Wei, A-J Tong; *Anal. Chim. Acta*, 427, 29 (2001)  
 2001MAa P Marcos, J Ascenso, M Segurado, J Pereira; *Tetrahedron*, 57, 6977 (2001)  
 2001PRa K Popov, H Ronkkomaki, L Lajunen; *Pure & Appl. Chem.*, 73, 1641 (2001)  
 2001SBc H Sigel, E Bianchi, N Corfu, B Martin; *Chem. Eur. J.*, 7, 3729 (2001)  
 2001SCc R Sharma, S Chopra, M Kidwai; *Indian J. Chem.*, 40A, 1240 (2001)  
 2001SGd P Singh, B Garg, D Kumar, B Singh; *Indian J. Chem.*, 40A, 1339 (2001)  
 2001SGe P Sharma, D Goel, S Mittal, S Sindhwani; *Indian J. Chem.*, 40A, 616 (2001)  
 2001SSd P Sharma, B Swaika, S Mittal, S Sindhwani; *Indian J. Chem.*, 40A, 1076 (2001)  
 2000ABb F Arnaud-Neu, S Barbosa, A Casnati; *New J. Chem.*, 24, 967 (2000)  
 2000Ada H Azab, F Deghaidy, A Orabi; *J. Chem. Eng. Data*, 45, 709 (2000)  
 2000Ana V Athawale, S Nerkar; *Monatsh. Chem.*, 131, 267 (2000)  
 2000CCe P Chakrawarti, M Chakrawarti, P Maini; *J. Indian Chem. Soc.*, 77, 217 (2000)  
 2000CDd M Cabral, R Delgado, M Duarte; *Helv. Chim. Acta*, 83, 702 (2000)  
 2000DFb R Dhillon, S Lincoln, S Madbak; *Inorg. Chem.*, 39, 1855 (2000)  
 2000EGa C Erk, A Gocmen; *Talanta*, 53, 137 (2000)  
 2000FEc E Farkas, E Enyedy, H Csoka; *J. Inorg. Biochem.*, 79, 205 (2000)  
 2000FGa Y Fovet, J-Y Gal; *Talanta*, 53, 617 (2000)  
 2000GKa R Gomez-Coca, L Kapinos, H Sigel; *J. Chem. Soc., Dalton Trans.*, 2077 (2000)  
 2000KAb M Khalil, A Attia; *J. Chem. Eng. Data*, 45, 1108 (2000)  
 2000KHa M Khalil; *J. Chem. Eng. Data*, 45, 70 (2000)  
 2000KLb G Kampf, M Luth, J Mueller et al; *Z. Naturforsch.*, 55B, 1141 (2000)  
 2000LKc I Lazar, R Kiraly, Z Takacs; *J. Coord. Chem.*, 51, 293 (2000)  
 2000LXa H Li, H Xie, P Wang, S Wu; *New J. Chem.*, 24, 105 (2000)  
 2000RGa O Reany, T Gunnlaugsson, D Parker; *J. Chem. Soc., Perkin Trans. II*, 1819 (2000)  
 2000SDa K Sawada, W Duan, M Ono, K Satoh; *J. Chem. Soc., Dalton Trans.*, 919 (2000)  
 2000SMD M Shamsipur, T Madrakian; *Polyhedron*, 19, 1681 (2000)  
 2000SMg M Shamsipur, T Madrakian; *J. Coord. Chem.*, 52, 139 (2000)  
 2000TMa N Tsierkezos, I Molinou; *J. Chem. Eng. Data*, 45, 819 (2000)  
 2000VGB V Vasil'ev, S Gridchin, L Kochergina; *Koord. Khim.*, 26, 344 (2000)  
 1999BHb C Blindauer, A Holy, H Sigel; *Coll. Czech. Chem. Comm.*, 64, 613 (1999)  
 1999BSa C Blindauer, T Sjastad, E Sletten, H Sigel; *J. Chem. Soc., Dalton Trans.*, 3661 (1999)  
 1999CDb M Cabral, R Delgado; *Polyhedron*, 18, 3479 (1999)  
 1999CPa A Ceresa, E Pretsch; *Anal. Chim. Acta*, 395, 41 (1999)  
 1999DGa C de Stefano, A Gianguzza, D Piazzese; *Anal. Chim. Acta*, 398, 103 (1999)  
 1999DOa W Duan, H Oota, K Sawada; *J. Chem. Soc., Dalton Trans.*, 3075 (1999)  
 1999FEa E Farkas, E Enyedy; *Polyhedron*, 18, 2391 (1999)  
 1999HLb V Hietapelto, R Laitinen, J Pursiainen; *Acta Chem. Scand.*, 53, 7 (1999)  
 1999KSa L Kapinos, H Sigel; *Eur. J. Inorg. Chem.*, 1781 (1999)  
 1999MAB P Marcos, J Ascenso, M Segurado, J Pereria; *J. Phys. Org. Chem.*, 12, 695 (1999)  
 1999MKa E Matczak-Jon, B Kurzak, A Kamecka; *J. Chem. Soc., Dalton Trans.*, 3627 (1999)  
 1999NMa T Nakamura, K Makino, M Yanagisawa; *Bull. Chem. Soc. Jpn.*, 72, 2459 (1999)  
 1999Nwa T Nakashima, H Waki, T Tanaka, G Sugihara; *Bull. Chem. Soc. Jpn.*, 72, 1515 (1999)  
 1999SBg N Su, J Bradshaw, X Zhang, H Song, P Savage; *J. Org. Chem.*, 64, 8855 (1999)  
 1999SFc C De Stefano, C Foti, S Sammartano; *J. Chem. Eng. Data*, 44, 744 (1999)  
 1999SSa S Sajadi, B Song, H Sigel; *Inorg. Chem.*, 38, 439 (1999)  
 1999SSc M Sway, N Samara; *J. Chem. Eng. Data*, 44, 343 (1999)

- 1999USa R Ungaro, M Schwing-Weill, G Wipff; *J.Chem.Soc., Perkin Trans.II*, 1727 (1999)
- 1999VZb V Vasil'ev, G Zaitseva et al.; *Zh.Neorg.Khim.* 44, 1640 (1999)
- 1999WBa G Wenz, H-J Buschmann, E Schollmeyer; *J.Coord.Chem.*, 48, 465 (1999)
- 1999ZJa J R Zeevaart, N Jarvis, W Louw et al; *J.Inorg.Biochem.* 73, 265 (1999)
- 1998ABc R Addleman, J Bennett, S Tweedy; *Talanta*, 46, 573 (1998)
- 1998AVa A Agafonov, A Vladimirov, T Volkova; *Koord.Khim.* 24, 468 (1998)
- 1998BHa C Blindauer, A Holy, H Dvorakova; *J.Biol.Inorg.Chem.*, 3, 423 (1998)
- 1998BRa L Burai, J Ren, A Sherry; *Inorg.Chem.*, 37, 69 (1998)
- 1998CCd S Chaves, A Cerva, R Delgado; *Polyhedron*, 17, 93 (1998)
- 1998CDa J Costa, R Delgado, M Drew, V Felix; *J.Chem.Soc., Dalton Trans.*, 1063 (1998)
- 1998FLb S Fery-Forgues, D Lavabre, A Rochal; *New J.Chem.*, 1531 (1998)
- 1998GBa M Gholivand, F Bamdad, J Ghasemi; *Talanta*, 46, 875 (1998)
- 1998HTa L Herrero, A Terron; *Polyhedron*, 17, 3825 (1998)
- 1998KKa T Khochenkova, E Kozlovskii; *Zh.Neorg.Khim.*, 43(12)1946 (1998)
- 1998KLa J Kim, S Lee, E Kim, J Cho, M Cho, J Lee; *J.Chem.Eng.Data*, 43, 1072 (1998)
- 1998KSa L Kapinos, B Song, H Sigel; *Inorg.Chim.Acta*, 280, 50 (1998)
- 1998KSd L Kapinos, B Song, H Sigel; *Z.Naturforsch.*, 53B, 903 (1998)
- 1998MLa M Mimouni, R Lyazghi, J Juillard; *New J.Chem.*, 367 (1998)
- 1998RSa A de Robertis, C de Stefano; *Ann.Chim.(Rome)*, 88, 103 (1998)
- 1998SSc B Song, H Sigel; *Inorg.Chem.*, 37, 2066 (1998)
- 1997BEa D Brazhnikova, S Eltsov, N Bondarev; *Zh.Obshch.Khim.*, 67, 903 (1997)
- 1997CDb J Costa, R Delgado, M Figueira; *J.Chem.Soc., Dalton Trans.*, 65 (1997)
- 1997DQa R Delgado, S Quintino, M Teixeira; *J.Chem.Soc., Dalton Trans.*, 55 (1997)
- 1997GCa C Gerard, H Chehhal; *Bull.Soc.Chim.Fr.*, 134, 1069 (1997)
- 1997HMa R Hernandez-Molina, A Mederos et al; *Inorg.Chim.Acta*, 256, 319 (1997)
- 1997HMc R Hernandez-Molina, A Mederos, P Gili; *Polyhedron*, 16, 4191 (1997)
- 1997HTa J Huskens, D Torres, Z Kovacs et al; *Inorg.Chem.*, 36, 1495 (1997)
- 1997HVa M Halli, H Veerabhadraswamy, A Hiremath; *J.Indian Chem.Soc.*, 74, 332 (1997)
- 1997KKa K Kubo, N Kato, T Sakurai; *Bull.Chem.Soc.Jpn.*, 70, 3041 (1997)
- 1997LHa I Lednev, R Hester, J Moore; *J.Chem.Soc., Faraday Trans.*, 93, 1551 (1997)
- 1997MAa V Mironov, V Kiselev et al; *Zh.Neorg.Khim.*, 42, 787 (1997)
- 1997MKa V Mironov, V Kiselev et al; *Zh.Neorg.Khim.*, 42, 1029 (1997)
- 1997MKb V Mironov, V Kiselev, G Pashkov, L Sanina; *Zh.Neorg.Khim.*, 42, 1876 (1997)
- 1997PKc O Petrukhin, A Kharitonov; *Anal.Chim.Acta*, 353, 11 (1997)
- 1997PWa D Palmer, D Wesolowski; *J.Solution Chem.*, 26, 217 (1997)
- 1997SSg R Sigel, B Song, H Sigel; *J.Am.Chem.Soc.*, 119, 744 (1997)
- 1997STa A Saito, H Tomari, G Choppin; *Inorg.Chim.Acta*, 258, 145 (1997)
- 1997ZJa J Zeevaatt, N Jarvis, I Gurkowski, G Jackson; *S.Afr.J.Chem.*, 50, 189 (1997)
- 1996AAb R Abidi, F Arnaud-Neu, M Drew, J Nelson; *J.Chem.Soc., Perkin Trans.II*, 2747 (1996)
- 1996AAa R Abidi, F Arnaud-Neu, M Drew, J Nelson; *J.Chem.Soc., Perkin Trans.II*, 2747 (1996)
- 1996AMa L Abate, P Mineo, C Rigano, S Sammatano etc; *Chem.Speciation and Bioavail.*, 8, 59 (1996)
- 1996BBf A Bordunov, J Bradshaw et al; *Inorg.Chem.*, 35, 7229 (1996)
- 1996BCa G Bates, E Cole, D Parker, R Katakya; *J.Chem.Soc., Dalton Trans.*, 2693 (1996)
- 1996BDb P Brown, S Drummond, D Palmer; *J.Chem.Soc., Dalton Trans.*, 3071 (1996)
- 1996BFb E Bottari, M Festa; *Ann.Chim.(Rome)*, 86, 133 (1996)
- 1996BGa C Bremer, E Grell; *Inorg.Chim.Acta*, 241, 13 (1996)

- 1996BSa I Batinic-Haberle, I Spasojevic et al; *Inorg.Chem.*, 35, 2352 (1996)
- 1996BTa T Bruice, A Tsubouchi, R Dempcy, L Olson; *J.Am.Chem.Soc.*, 118, 9867 (1996)
- 1996CHc C Chang; *J.Chem.Soc., Dalton Trans.*, 2347 (1996)
- 1996CHF C Christov; *Coll.Czech.Chem.Comm.*, 61, 507 (1996)
- 1996GCa A Garcia, J Cameselle, F Barros et al; *J.Inorg.Biochem.*, 62, 57 (1996)
- 1996GMb A Gianguzza, F Maggio, S Sammartano; *Chem.Speciation and Bioavail.*, 8, 17 (1996)
- 1996HSa J Huskens, A Sherry; *Inorg.Chem.*, 35, 5137 (1996)
- 1996HSb J Huskens, A Sherry; *J.Am.Chem.Soc.*, 118, 4396 (1996)
- 1996IFa S Iotta, C Frassinetti, L Alderighi et al.; *NMR in Biomedicine*, 9, 24 (1996)
- 1996MBb L Miao, D Bell, G Rothremel, S Jackels; *Supramol.Chem.*, 6, 365 (1996)
- 1996OCa T Ohyama, J Cowan; *J.Biol.Inorg.Chem.*, 1, 83 (1996)
- 1996RSb A de Robertis, C de Stefano, C Foti; *Ann.Chim.(Rome)*, 86, 155 (1996)
- 1996SJa R Sharma, S Joseph; *Indian J.Chem.*, 35A, 639 (1996)
- 1996SSa A Saha, N Saha, L Ji; *J.Biol.Inorg.Chem.*, 1, 231 (1996)
- 1996SSd H Sigel, B Song; *Met.Ions Biol.Syst.*, 32, 135 (1996)
- 1995BGa E Brucher, B Gyora, J Emri, S Jakab et al; *J.Chem.Soc., Dalton Trans.*, 3353 (1995)
- 1995BLa K Bazakas, I Lukes; *J.Chem.Soc., Dalton Trans.*, 1133 (1995)
- 1995CDa E Chinea, S Dominguez, A Mederos et al; *Inorg.Chem.*, 34, 1579 (1995)
- 1995CDc A Casale, A De Robertis, S Sammartano; *Thermochim.Acta*, 255, 109 (1995)
- 1995FDa J Fransen, P Dutton; *Can.J.Chem.*, 73, 2217 (1995)
- 1995IOa M Inoue, P Oram, M Inoue, Q Fernando; *Inorg.Chim.Acta*, 232, 91 (1995)
- 1995JWa N Jarvis, J Wagener, G Jackson; *J.Chem.Soc., Dalton Trans.*, 1411 (1995)
- 1995KHa W Kim, D Hrncir, G Kiefer et al; *Inorg.Chem.*, 34, 2225 (1995)
- 1995LBb L Loginova, V Bazilyanskaya; *Anal.Chim.Acta*, 315, 55 (1995)
- 1995LLa S Lincoln, J Lucas, T Rodopoulos; *Inorg.Chim.Acta*, 237, 147 (1995)
- 1995MMf S Mazzini, R Mondelli, E Ragg, L Scaglioni; *J.Chem.Soc., Perkin Trans.II*, 285 (1995)
- 1995OCa T Ohyama, J Cowan; *Inorg.Chem.*, 34, 3083 (1995)
- 1995PDa E Pereira, C Demicheli, L Peixoto; *J.Braz.Chem.Soc.*, 6, 381 (1995)
- 1995PLa J Piispanen, L Lajunen; *Acta Chem.Scand.*, 49, 235; 241 (1995)
- 1995RKc H Ren, B Kratochvil; *J.Chem.Eng.Data*, 40, 1091 (1995)
- 1995RLa H Ronkkomaki, L Lajunen; *Acta Chem.Scand.*, 49, 36; 325 (1995)
- 1995RRd D Rao, E Ramaiah, K Ram; *Oriental J.Chem.*, 11, 83 (1995)
- 1995RRe D Rao, G Reddy, E Ramaiah, K Ram; *Acta Ciencia Indica, Chem.*, 21, 111 (1995)
- 1995SBa S Sajadi, M Bastian; *J.Inorg.Biochem.*, 59, 139 (1995)
- 1995SFa B Song, G Feldmann, M Bastian et al; *Inorg.Chim.Acta*, 235, 99 (1995)
- 1995SSe R Sigel, B Song, H Sigel; *J.Inorg.Biochem.*, 59, 293 (1995)
- 1995SWa P-S Song, D-B Wang, J-Z Yang; *Acta Chimica Sinica*, 53, 985 (1995)
- 1995WOa P Wang, J Oscarson, R Izatt, G Watt, Larsen; *J.Solution Chem.*, 24, 989 (1995)
- 1995YAA S Yoo, E Awad, M El-Sayed; *J.Phys.Chem.*, 99, 11600 (1995)
- 1994ABc A Albrecht-Gary, S Blanc et al; *Inorg.Chem.*, 33, 518 (1994)
- 1994CGa R Crossley, Z Goolamali, J Gosper et al; *J.Chem.Soc., Perkin Trans.II*, 513, 1615 (1994)
- 1994CIa L Ciavatta, M Iuliano, R Porto; *Ann.Chim.(Rome)*, 84, 95 (1994)
- 1994DFc C de Stefano, C Foti, A Gianguzza; *Talanta*, 41, 1715 (1994)
- 1994HWC T Hu, L Weiler; *Can.J.Chem.*, 72, 1512 (1994)
- 1994PRa R Pizer, P Ricatto; *Inorg.Chem.*, 33, 4985 (1994)
- 1994SCa B Song, D Chen, M Bastian, R Martin, H Sigel; *Helv.Chim.Acta*, 77, 1738 (1994)

1994SDB G Strunk, H Diebler; J.Chem.Soc., Dalton Trans., 1929 (1994)  
 1994SHc R Sharma; Monatsh.Chem., 125, 267 (1994)  
 1994SHd H Shehata; J.Chem.Soc., Faraday Trans., 90, 3401 (1994)  
 1994SMB H Sigel, S Massoud, N Corfu; J.Am.Chem.Soc., 116, 2958 (1994)  
 1993ABb F Arnaud-Neu, G Barrett et al; Inorg.Chem., 32, 2644 (1993)  
 1993DGa C De Stefano, A Gianguzza, S Sammartano; Thermochim.Acta, 214, 325 (1993)  
 1993DPd R Diaz Ara, P Pascual; Indian J.Chem., 32A, 903 (1993)  
 1993EAa C Garcia-Echeverria, F Albericio et al; J.Am.Chem.Soc., 115, 11663 (1993)  
 1993GAa M Ghandour, E Aboul-Kasim, A Amrallah; J.Indian Chem.Soc., 70, 615 (1993)  
 1993GMA S Glab, M Maj-Zurawska et al; Anal.Chim.Acta, 273, 493 (1993)  
 1993GSA J Ghasemi, M Shamsipur; J.Coord.Chem., 28, 231 (1993)  
 1993INA Y Inoue, K Nakagawa, T Hakushi; J.Chem.Soc., Dalton Trans., 1333, 2279 (1993)  
 1993KLa L Kaila, L Lajunen, E Rizkalla, J Elorante; Talanta, 40, 999 (1993)  
 1993LPa R Lyazghi, Y Pointud, G Dauphin, J Juillard; J.Chem.Soc., Perkin  
 Trans.II, 1681 (1993)  
 1993SFB A Stephens, S Lincoln; J.Chem.Soc., Dalton Trans., 2123 (1993)  
 1993SKc K Saawada, T Kanda, Y Naganuma, T Suzuki; J.Chem.Soc., Dalton Trans., 2557  
 (1993)  
 1993SMA K Sawada, T Miyagawa, T Sakaguchi, K Doi; J.Chem.Soc., Dalton Trans., 3777  
 (1993)  
 1993WLa D Wambeke, W Lippens, G Herman et al; J.Chem.Soc., Dalton Trans., 2017  
 (1993)  
 1993ZMa I Zheltvai, I Magunov, O Timofeev; Zh.Neorg.Khim., 38, (5)768 (1993)  
 1992ADa M Amorim, R Delgado, J da Silva; Polyhedron, 11, 1891 (1992)  
 1992AVa A Alegria, B Velaquez; J.Solution Chem., 21, 1241 (1992)  
 1992BFa A Barzykin, M Fox et al; J.Am.Chem.Soc., 114, 6381 (1992)  
 1992BSc H Buschmann, E Schollmeyer; Thermochim.Acta, 211, 13 (1992)  
 1992DAC N Dallali, Y Agrawal; J.Indian Chem.Soc., 69, 219 (1992)  
 1992DDa A De Robertis, C De Stefano, G Patane; Thermochim.Acta, 209, 7 (1992)  
 1992GHa S Glab, A Hulanicki; Talanta, 39, 1555 (1992)  
 1992GOa S Gillispie, J Oscarson, R Izatt; J.Solution Chem., 21, 761 (1992)  
 1992GSA J Ghasemi, M Shamsipur; J.Coord.Chem., 26, 337 (1992)  
 1992GVA J Gibson, O Vaughan; J.Chem.Soc., Dalton Trans., 1375 (1992)  
 1992KJa Y Kinjo, L-N Ji, N Corfu, H Sigel; Inorg.Chem., 31, 5588 (1992)  
 1992KSb E Konigsberger, P Schmidt, H Gamsjager; J.Solution Chem., 21, 1195 (1992)  
 1992LBa I Lukes, K Bazakas, P Hermann, P Vojtisek; J.Chem.Soc., Dalton Trans., 939  
 (1992)  
 1992LCb G Liang, D Chen et al; J.Am.Chem.Soc., 114, 7780 (1992)  
 1992LHb F Lin, C Horvath; J.Chromatography, 589, 185 (1992)  
 1992LRA I Lazar, R Ramasamy, E Brucher et al; Inorg.Chim.Acta, 195, 89 (1992)  
 1992MMA R Motekaitis, A Martell; Inorg.Chem., 31, 11 (1992)  
 1992MSe D Mishra, U Sharma, V Bhagwat; J.Indian Chem.Soc., 69, 70 (1992)  
 1992NSa N Nakasuka, M Sawaragi, K Matsumura, M Tana; Bull.Chem.Soc.Jpn., 65, 1722  
 (1992)  
 1992RAD P Reddy, T Adharani et al; Indian J.Chem., 31A, 855 (1992)  
 1992SCa H Sigel, D Chen et al; Helv.Chim.Acta, 75, 2634 (1992)  
 1992SSc Sahadev, R Sharma et al; Monatsh.Chem., 123, 25, 883, 1099 (1992)  
 1992STa A Srivastava, B Tiwari; J.Electroanal.Chem., 325, 301 (1992)  
 1992ZHa I Zheltvai; Zh.Neorg.Khim., 37, (8)1843 (1992)  
 1991ACC F Arnaud-Neu, S Cremin, D Cunningham; J.Inclusion Phenom., 10, 329 (1991)

1991ANa G Anderegg; Inorg.Chim.Acta,180,69 (1991)  
 1991ASc M Amini,M Shamsipur; J.Phys.Chem.,95,9601 (1991)  
 1991Aa G Anderegg; Inorg.Chim.Acta,180,69 (1991)  
 1991BSc M Bastian,H Sigel; J.Coord.Chem.,23,137 (1991)  
 1991BSd M Bastian,H Sigel; Inorg.Chim.Acta,187,227 (1991)  
 1991CMb E Clarke,A Martell; Inorg.Chim.Acta,190,27,37 (1991)  
 1991COa J Cowan; Inorg.Chem.,30,2740 (1991)  
 1991DDb A de Robertis,C de Stefano; Talanta,38,439 (1991)  
 1991DLa P Duckworth,S Lincoln,J Lucas; Inorg.Chim.Acta,188,55 (1991)  
 1991EAa M Emara,H Abd Elbary,A Wasfi; J.Chin.Chem.Soc.(Taipei),38,447 (1991)  
 1991FEa J Fein; Geochim.Cosmo.Acta,55,955 (1991)  
 1991FGb F Fronczek,R Gandour,T Fyles; Can.J.Chem.,69,12 (1991)  
 1991GDb B Garg,R Dixit; Bull.Soc.Chim.Fr.,127,14 (1991)  
 1991GDc B Garg,R Dixit; Bull.Soc.Chim.Fr.,127,14 (1991)  
 1991GDe B Garg,R Dixit,N Kiran; Ann.Chim.(Rome),81,155 (1991)  
 1991JCa L Ji,N Corfu,H Sigel; J.Chem.Soc.,Dalton Trans.,1367 (1991)  
 1991JJa J Jimenez,M Julve,J Faus; J.Chem.Soc.,Dalton Trans.,1945 (1991)  
 1991KNa C Krishnamoorthy,R Nakon; J.Coord.Chem.,23,233 (1991)  
 1991LSc I Lazar,A Sherry,R Ramasamy et al; Inorg.Chem.,30,5016 (1991)  
 1991SGa V Solovev,L Govorkova et al.; Izv.Akad.Nauk USSR,(3)575 (1991)  
 1991Sma R Smith,A Martell,Y Chen; Pure & Appl.Chem.,63,1015 (1991)  
 1991SSb A Semnani,M Shamsipur; J.Electroanal.Chem.,315,95 (1991)  
 1990ARA G Anderegg,M Raber; J.Chem.Soc.,Chem.Comm.,1194 (1990)  
 1990Bjb H Bieth,P Jost,B Spiess; J.Inorg.Biochem.,39,59 (1990)  
 1990CBc S Cortes,E Brucher et al; Inorg.Chem.,29,5 (1990)  
 1990CCa M Cabral,J Costa,R Delgado et al; Polyhedron,9,2847 (1990)  
 1990DGc R Dixit,B Garg; Bull.Soc.Chim.Fr.,127,1 (1990)  
 1990DOa M Dahlund,A Olin; Acta Chem.Scand.,44,321 (1990)  
 1990DSa R Delgado,L Siegfried et al; Helv.Chim.Acta,73,140 (1990)  
 1990DSb N Dobrynina,I Svetlova et al; Zh.Neorg.Khim.,35,1216 (686) (1990)  
 1990GKa G Gross,B Costisella,K Schwartz et al; Zh.Obshch.Khim.,60,749 (1990)  
 1990JKa G Jackson,M Kelly; J.Chem.Soc.,Dalton Trans.,1889 (1990)  
 1990KLa E Kozlovskii,S Ledenkov,V Vasil'ev; Zh.Neorg.Khim.,35,133 (73) (1990)  
 1990LNa N Lukyanenko,N Nazarova,V Vetrogon et al; Polyhedron,9,1369 (1990)  
 1990MDa A Mederos,S Dominguez,M H-Padilla et al; J.Coord.Chem.,21,283 (1990)  
 1990MIa S Morimoto,S Ito,Y Hara,M Nakao; Thermochim.Acta,163,97 (1990)  
 1990NTa T Nakashima,H Tanaka,G Sugihara,H Waki; Polyhedron,9,2609 (1990)  
 1990RAB F Rey,J Antelo,F Arce,F Penedo; Polyhedron,9,665 (1990)  
 1990RRa P Reddy,K Reddy et al; Indian J.Chem.,29A,686 (1990)  
 1990SSa P Saccocia,W Seyfried; Geochim.Cosmo.Acta,54,3283 (1990)  
 1990YTa K Yatsimirskii,L Tsymbal,E Sinyavskaya; Zh.Neorg.Khim.,35,(1)117 (1990)  
 1989ABb A Albrecht,S Blanc,D Boyd,G Jeminet; J.Am.Chem.Soc.,111,8598 (1989)  
 1989DBb N Davidenko,G Bukievskaya,Y Parkhomenko; Koord.Khim.,15(8)1059 (1989)  
 1989DDb P Daniele,A De Robertis,C De Stefano; J.Solution Chem.,18,23 (1989)  
 1989DSa R Delgado,J da Silva et al; J.Chem.Soc.,Dalton Trans.,133 (1989)  
 1989EHa A Evers,R Hancock,A Martell et al; Inorg.Chem.,28,2189 (1989)  
 1989FRa J Fuentes,R Reboso,A Rodriguez; Polyhedron,8,1365,2693 (1989)  
 1989GAb M Ghandour,H Azab,A Hassan et al; Polyhedron,8,189 (1989)  
 1989GRb P Gupta,A Raina; J.Indian Chem.Soc.,66,271 (1989)  
 1989HFa J Hershey,M Fernandez,F Millero; J.Solution Chem.,18,875 (1989)

- 1989HGa H Hopkins,R Gayden; J.Solution Chem.,18,743 (1989)  
 1989KSc S Kashanian,M Shamsipur; Inorg.Chim.Acta,155,203 (1989)  
 1989KTa Y Kinjo,R Tribolet,N Corfu,H Sigel; Inorg.Chem.,28,1480 (1989)  
 1989MMd R Motekaitis,A Martell; Inorg.Chem.,28,3499 (1989)  
 1989MSf S Massoud,H Sigel; Eur.J.Biochem.,179,451 (1989)  
 1989RVa A Rao,P Venkataiah,M Mohan et al; J.Coord.Chem.,20,69 (1989)  
 1989SIb R Singh; Bull.Chem.Soc.Jpn.,62,4089 (1989)  
 1989SKa N Skorik,O Krasnoslobodtseva,T Yakovenko; Zh.Neorg.Khim.,34,2276 (1989)  
 1989SLa M Strasad,J Lucansky,P Novomesky et al; J.Coord.Chem.,19,359 (1989)  
 1989VKA V Vasilev,E Kozlovskii,S Ledenkov; Zh.Neorg.Khim.,34,245(139) (1989)  
 1989YKa K Yatsimirskii,M Konstantinovskaya et al; Zh.Neorg.Khim.,34,2217(1262) (1989)  
 1988ADa M Amorim,R Delgado et al; Talanta,35,741 (1988)  
 1988BFa E Bottari,M Festa,R Jasionowska; J.Coord.Chem.,17,245 (1988)  
 1988BLa M Bonnerly,V LoGatto,M Persin,G Durand; Bull.Soc.Chim.Fr.,I,49 (1988)  
 1988BSa K Burger,P Sipos,M Veber,I Horvath et al; Inorg.Chim.Acta,152,233 (1988)  
 1988CBb S Clegg,P Brimblecombe; J.Chem.Soc.,Dalton Trans.,705 (1988)  
 1988Cva P Chakrawarti,B Vijayvargiya,H Sharma; J.Indian Chem.Soc.,65,314 (1988)  
 1988GDa A Gianguzza,G Dia,S Sammartano; J.Chem.Research(S),12 (1988)  
 1988GMD M Ghandour,H Mansour,M El-Wafa,M Khodary; J.Indian Chem.Soc.,65,716 (1988)  
 1988HYa Huang Zhongxian,Yang Liwei,Zhou Chuner; Acta Chimica Sinica,398 (1988)  
 1988JTa J Juillard,C Tissier,G Jeminet; J.Chem.Soc.,Faraday Trans.I,84,951 (1988)  
 1988KGa S Kashanian,M Gholivand et al; Polyhedron,7,1227 (1988)  
 1988KMa A Kapustinskii,E Malakhayev; Zh.Neorg.Khim.,33,1673(951) (1988)  
 1988KPa M Kabachnik,Y Polykarpov et al; Izv.Akad.Nauk(USSR),4,921 (1988)  
 1988KRa B Khan,M Raju,S Zakeeruddin; J.Chem.Soc.,Dalton Trans.,67 (1988)  
 1988Lba L Lambs,G Berthon; Inorg.Chim.Acta,151,33 (1988)  
 1988Lda I Lukes,I Dominak; Chem.Papers 42,311 (1988)  
 1988Lva L Lambs,M Venturini,H Kozlowski et al; J.Inorg.Biochem.,33,193 (1988)  
 1988Mba P Manorik,E Blizneukova,M Fedorenko; Zh.Neorg.Khim.,33,977(549) (1988)  
 1988Mka T Medved,M Kabachnik et al; Izv.Akad.Nauk(USSR),9,2107 (1988)  
 1988Mkb T Medved,M Kabachnik et al; Izv.Akad.Nauk(USSR),9,2103 (1988)  
 1988Mnb M Mayadeo,J Nalgirkar; Indian J.Chem.,27A,456 (1988)  
 1988MOa J Maslowska,A Owczarek; Pol.J.Chem.,62,75 (1988)  
 1988MSa S Massoud,H Sigel; Inorg.Chem.,27,1447 (1988)  
 1988NHa T Nakamura,H Higuchi,K Izutsu; Bull.Chem.Soc.Jpn.,61,1020 (1988)  
 1988PGb J Perez,S Garcia,J Gutierrez; An.Quim.,84,213 (1988)  
 1988PPa Y Pointud,E Passelaigue,J Juillard; J.Chem.Soc.,Faraday Trans.I,84,1713 (1988)  
 1988Rba H Rogers,C van den Berg; Talanta,35,271 (1988)  
 1988RPb V Ruangpornvisuti,M Probst,B Rode; Inorg.Chim.Acta,144,21 (1988)  
 1988Smb H Sigel,S Massoud,R Tribolet; J.Am.Chem.Soc.,110,6857 (1988)  
 1988Tia C Tissier; Bull.Soc.Chim.Fr.,II,638 (1988)  
 1988YSc I Yoshida,F Sagami,K Ueno; Anal.Sci.Jpn.,4,69 (1988)  
 1988ZHa Zhang Hualin,Hua X,Jiang N,Yan Q Y; Acta Chimica Sinica,643 (1988)  
 1987BBd C Blaquiere,G Berthon; Inorg.Chim.Acta,135,179 (1987)  
 1987BGc A Bevilacqua,R Gelb,W Hebard et al; Inorg.Chem.,26,2699 (1987)  
 1987CBd L Chen,M Bos,P Grootenhuys; Anal.Chim.Acta,201,117 (1987)

1987DDb R Delgado, J da Silva et al; Polyhedron, 6, 29 (1987)  
 1987DDe A De Robertis, C De Stefano; Thermochim. Acta, 117, 317 (1987)  
 1987HAa L Harju; Talanta, 34, 817 (1987)  
 1987HAb P Hakkinen; Finn. Chem. Lett., 14, 15 (1987)  
 1987HJb D Herschlag, W Jenks; J. Am. Chem. Soc., 109, 4665 (1987)  
 1987KRa B Khan, R Raju, S Zakeeruddin; J. Coord. Chem., 16, 237 (1987)  
 1987SAa K Sawada, T Araki, T Suzuki; Inorg. Chem., 26, 1199 (1987)  
 1987SCa S Shanbhag, G Choppin; Inorg. Chim. Acta, 138, 187 (1987)  
 1987STb H Sigel, R Tribolet et al; Inorg. Chem., 26, 2149 (1987)  
 1987TCa V Tkachev, A Chaikovskaya et al; Izv. Akad. Nauk (USSR), 12, 2745 (1987)  
 1987TLa S-J Tsai, D Leussing; Inorg. Chem., 26, 2620 (1987)  
 1987VOa V Vasilev, T Orlova, S Kuznetsova; Zh. Neorg. Khim., 32, 1817 (1076) (1987)  
 1986CCc R Cini, A Cinquantini, R Seeber; Inorg. Chim. Acta, 123, 69 (1986)  
 1986CCd S Capone, A Casale, A Curro, A Robertis; Ann. Chim. (Rome), 76, 441 (1986)  
 1986COb C Chang, V Ochaya; Inorg. Chem., 25, 355 (1986)  
 1986CVb P Chakrawarti, B Vijayvargiya, H Sharma; J. Indian Chem. Soc., 63, 1036 (1986)  
 1986DDa A Dangalla, H Dias et al; Indian J. Chem., 25A, 80 (1986)  
 1986HAc P Hakkinen; Finn. Chem. Lett., 13, 53 (1986)  
 1986KKa E Kriss, G Kourbatova et al; Zh. Neorg. Khim., 31, 1196 (680) (1986)  
 1986KZa B Khan, S Zakeeruddin; Inorg. Chim. Acta, 124, 5 (1986)  
 1986MBd M Mayadeo, R Banavali; Indian J. Chem., 25A, 396 (1986)  
 1986MSc A Misra, K Srinivasulu; J. Indian Chem. Soc., 63, 519 (1986)  
 1986NIa V Novikov, T Ignateva, O Raevskii; Zh. Neorg. Khim., 31, 1474 (842) (1986)  
 1986RRa P Reddy, V Rao; J. Chem. Soc., Dalton Trans., 2331 (1986)  
 1986RRe P Reddy, B Reddy; Polyhedron, 5, 1947 (1986)  
 1986RSa A de Robertis, C de Stefano et al; J. Chem. Res. (S), 164 (1986)  
 1986SDa P Singh, H Dahiya, V Sharma; Indian J. Chem., 25A, 116 (1986)  
 1986SNa I Sanemasa, Y Nishimoto, A Tananka; Bull. Chem. Soc. Jpn., 59, 1459 (1986)  
 1986SSb H Sigel, K Scheller et al; J. Am. Chem. Soc., 108, 4171 (1986)  
 1986VDA R Vithanage, P Dasgupta; Anal. Chem. (USA), 58, 326 (1986)  
 1986VKa V Vasilev, E Kozlovskii, T Marina; Zh. Neorg. Khim., 31, 2227 (1283) (1986)  
 1986VKb V Vasilev, E Kozlovskii et al; Zh. Neorg. Khim., 31, 856 (487) (1986)  
 1986VZa V Vasilev, G Zaitseva, I Borisova; Zh. Neorg. Khim., 31, 812 (462) (1986)  
 1986WAa J Walther; Geochim. Cosmo. Acta, 50, 733 (1986)  
 1986XHa Xu Xiliang, Huang Zhongxian; Acta Chimica Sinica, 1005 (1986)  
 1985BOa A Beezer, P O'Brien, W Sham; Inorg. Chim. Acta, 108, 123 (1985)  
 1985BP a R Boss, A Popov; Inorg. Chem., 24, 3660 (1985)  
 1985CDB A Casale, A De Robertis, S Sammartano; Thermochim. Acta, 95, 15 (1985)  
 1985CRA S Capone, A de Robertis et al; Talanta, 32, 675 (1985)  
 1985EHa G Ewin, J Hill; J. Chem. Res. (S), 334 (1985)  
 1985GGb B Gupta, A Gupta, S Gupta, Y Gupta; Indian J. Chem., 24A, 927 (1985)  
 1985GMB G Gross, T Medved, S Novak et al; Zh. Obshch. Khim., 55, 734 (1985)  
 1985GSb Q Gao, C Sun, D Zhang; Yingyong Huaxue, 2, 62 (1985)  
 1985HAa P Hakkinen; Finn. Chem. Lett., 17 (1985)  
 1985HCa Z-X Huang, A Creighton, D Williams; Inorg. Chim. Acta, 107, L29 (1985)  
 1985KF a E Kimura, H Fujioka, A Yatsunami, H Nihira; Chem. Pharm. Bull., 33, 655 (1985)  
 1985KSA M Konstantinovskaya, E Siniavskaya et al;  
 Zh. Neorg. Khim., 30, 2248 (1278) 2571 (1463) (1985)  
 1985LBb L Lambs, M Brion, G Berthon; Inorg. Chim. Acta, 106, 151 (1985)  
 1985LBc S Lubkeova, P Balgavy et al; Chem. Zvesti, 39, 317 (1985)



- 1985LDb M le Guyader, G Dorange, A Marchand; Bull.Soc.Chim.Fr., I, 636 (1985)
- 1985LLa P Linder, J Little; Talanta, 32, 83 (1985)
- 1985MBb M Merwe, J Boeyens, R Hancock; Inorg.Chem., 24, 1208 (1985)
- 1985MGB A Mukhametzyanov, I Gorelov; Zh.Obshch.Khim., 55, 253 (1985)
- 1985MKb M Munakata, S Kitagawa, M Miyazime; Inorg.Chem., 24, 1638 (1985)
- 1985MMA F Mulla, F Marsicano, B Nakani et al; Inorg.Chem., 24, 3076 (1985)
- 1985PBb E Bottari, R Porto; Ann.Chim.(Rome), 75, 393 (1985)
- 1985PHb R Prigodich, P Haake; Inorg.Chem., 24, 89 (1985)
- 1985PMC Z Pikulikova, A Muchova; Chem.Zvesti, 39, 481 (1985)
- 1985RAa E Rizkalla, M Antonious, S Anis; Inorg.Chim.Acta, 96, 171 (1985)
- 1985RRc P Reddy, V Rao; Polyhedron, 4, 1603 (1985)
- 1985RRh P Reddy, M Reddy; J.Chem.Soc., Dalton Trans., 239 (1985)
- 1985RSa A de Robertis, C de Stefano, C Rigano +; J.Chem.Res.(S), 42 (1985)
- 1985SCd B Sandmann, M Chien, R Sandmann; Anal.Lett., 18, 149 (1985)
- 1985SGd N Schmelzer, M Grigo, B Zorn, J Einfeldt; Naturwissenschaft, 34, 25 (1985)
- 1985SIa J Siepak; Pol.J.Chem., 59, 651 (1985)
- 1985SIb J Siepak; Pol.J.Chem., 59, 955 (1985)
- 1985SMA S Singh, S Mattu, S Choudhury et al; Bull.Soc.Chim.Fr., II, 713 (1985)
- 1985SMg G Smith, D Miller; Biochim.Biophys.Acta, 839, 287 (1985)
- 1985SND R Samakayev, L Nikolayeva et al; Zh.Obshch.Khim., 55, 680 (1985)
- 1985TZA Tai Zihou, Zhu Chunsheng; Huaxue Tongbao(Chem.China), 4-16 (1985)
- 1984CGB A Cole, J Goodfield, D Williams et al; Inorg.Chim.Acta, 92, 91 (1984)
- 1984COa R Contant; J.Chem.Res.(S), 120 (1984)
- 1984CTa B Cox, N Truong, J Rzeszotarska et al; J.Chem.Soc., Faraday Trans.I, 80, 3275 (1984)
- 1984DDa A de Robertis, C de Stefano, R Scarcella; Thermochim.Acta, 80, 197 (1984)
- 1984DFa R Delgado, J Frausto da Silva, M Vaz; Inorg.Chim.Acta, 90, 185 (1984)
- 1984DMb J Duffield, P May, D Williams; J.Inorg.Biochem., 20, 199 (1984)
- 1984EFa M Emara, N Farid, A Wasfi, M Bahr; J.Phys.Chem., 88, 3345 (1984)
- 1984GKa A Grygoreva, N Konakhovich et al; Koord.Khim., 10, 1461 (1984)
- 1984JMb W Jenkins, M Marshall, A Lewin; Arch.Biochem.Biophys. 232, 496 (1984)
- 1984KMa M Kabachnik, T Medved et al; Izv.Akad.Nauk(USSR), 4, 835 (1984)
- 1984KMB M Kabachnik, T Medved et al; Izv.Akad.Nauk(USSR), 4, 844 (1984)
- 1984MMc C Madeyski, J Michael, R Hancock; Inorg.Chem., 23, 1487 (1984)
- 1984MMg R Miotekaitis, A Martell; J.Coord.Chem., 13, 265 (1984)
- 1984NHa B Nakani, R Hancock; J.Coord.Chem., 13, 143 (1984)
- 1984PHc V Pecoraro, J Hermes, W Cleland; Biochemistry, 23, 5262 (1984)
- 1984RFd B Rodriguez-Rios, J Fuentes-Diaz; An.Quim., 80, 200 (1984)
- 1984RFe B Rodriguez-Rios, J Fuentes-Diaz; An.Quim., 80, 32; 37 (1984)
- 1984SSE H Sigel, K Scheller; Eur.J.Biochem., 138, 291 (1984)
- 1984TWA S Tam, R Williams; J.Chem.Soc., Faraday Trans.I, 80, 2255 (1984)
- 1984VBa R Verbeeck, P de Bruyne et al; Inorg.Chem., 23, 1922 (1984)
- 1984VKd V Vasilev, E Kozlovskii et al; Zh.Neorg.Khim., 29, 1943(1112) (1984)
- 1984VOB F Vogtle, C Ohm; Chem.Ber., 117, 948 (1984)
- 1984VSc F Vogtle, H Schafer, C Ohm; Chem.Ber., 117, 955 (1984)
- 1984WNa H Wada, G Nakagawa et al; Anal.Chim.Acta, 159, 289 (1984)
- 1984YSb K Yatsimirskii, E Siniavskaya et al; Zh.Neorg.Khim., 29, 888(512) (1984)
- 1983AMB G Arena, S Musumeci, R Purrello; Thermochim.Acta, 61, 129 (1983)
- 1983BBc G Berthon, M Brion, L Lambs; J.Inorg.Biochem., 19, 1 (1983)
- 1983BEb U Bips, H Elias, M Hauröder et al; Inorg.Chem., 22, 3865 (1983)

1983BSd I Benes, K Schreiber, H Ripperger; *Experientia*, 39, 261 (1983)  
 1983BWa R Byrne, C V-D-Weijden et al; *J. Solution Chem.*, 12, 581 (1983)  
 1983CVa P Chakrawarti, B Vijayvargiya, H Sharma; *J. Indian Chem. Soc.*, 60, 89 (1983)  
 1983EBa M Emara, M Bahr; *Bull. Soc. Chim. Fr.*, I, 25 (1983)  
 1983EHa G Ewin, J Hill; *J. Chem. Soc., Dalton Trans.*, 865 (1983)  
 1983KSa M Khan, S Satyanarayana, M Jyoti et al; *Indian J. Chem.*, 22A, 357, 364 (1983)  
 1983KSc M Khan, S Satyanarayana; *Indian J. Chem.*, 22A, 584 (1983)  
 1983LKa D Leggett, S Kelly, L Shiue, K Kadish; *Talanta*, 30, 579 (1983)  
 1983LRc E Lance, C Rhodes, R Nakon; *Anal. Biochem.*, 133, 492 (1983)  
 1983LSa Luo Qinhui, Shen Mengchang; *Acta Chimica Sinica*, 871 (1983)  
 1983MDa J Maslowska, A Dorabalski; *Pol. J. Chem.*, 57, 1089 (1983)  
 1983MOa J Maslowska, A Owczarek; *Pol. J. Chem.*, 57, 719 (1983)  
 1983PGa S Prasad, J Ghosh; *J. Indian Chem. Soc.*, 60, 453 (1983)  
 1983RRb P Reddy, M Reddy; *Polyhedron*, 2, 1171 (1983)  
 1983RRc P Reddy, K Reddy; *Inorg. Chim. Acta*, 80, 95 (1983)  
 1983RRc P Reddy, K Reddy, M Khan; *Indian J. Chem.*, 22A, 959 (1983)  
 1983SKa R Sridharan, C Krishnamoorthy; *J. Coord. Chem.*, 12, 231 (1983)  
 1983SSc K Scheller, H Sigel; *J. Am. Chem. Soc.*, 105, 3005 (1983)  
 1983VDb N Vlasova, N Davidenko; *Zh. Neorg. Khim.*, 28, 1738 (1983)  
 1982ADa P Amico, P Daniele, C Rigano et al; *Ann. Chim. (Rome)*, 72, 1 (1982)  
 1982ANa G Anderegg; *Pure & Appl. Chem.*, 54, 2693 (1982)  
 1982ARa R Aruga; *Can. J. Chem.*, 60, 1828 (1982)  
 1982BDc J Bolte, C Demuynck, G Jeminet; *Can. J. Chem.*, 60, 981 (1982)  
 1982BLb M Birus, D Leussing; *Inorg. Chem.*, 21, 374 (1982)  
 1982BPc E Bottari, R Porto; *Monatsh. Chem.*, 113, 1245 (1982)  
 1982CVa P Chakrawarti, B Vijayvargiya; *J. Indian Chem. Soc.*, 59, 734 (1982)  
 1982DMA P Daniele, M Marangella; *Ann. Chim. (Rome)*, 72, 25 (1982)  
 1982DRc P Daniele, C Rigano, S Sammartano; *Ann. Chim. (Rome)*, 72, 341 (1982)  
 1982DSa R Delgado, J da Silva; *Talanta*, 29, 815 (1982)  
 1982EFa M Emara, N Farid, A Wasfi; *Electrochim. Acta*, 27, 647 (1982)  
 1982FKa H Fujioka, E Kimura, M Kodama; *Chem. Lett.*, 737 (1982)  
 1982HKA T Hirokawa, Y Kiso; *J. Chromatography*, 248, 341 (1982)  
 1982HMB Z-X Huang, P May, K Quinlan, D Williams; *Agents Actions*, 12, 536 (1982)  
 1982HNA R Hancock, B Nakani; *S. Afr. J. Chem.*, 35, 153 (1982)  
 1982JGa M Jimenez, J Gutierrez, P Batanero; *An. Quim.*, 78, 136 (1982)  
 1982KBe Yu Kozlov, V Babich, I Gorelov; *Zh. Obshch. Khim.*, 52, 658 (1982)  
 1982KKA A Kapoustnikov, Y Kozlov, I Gorelov; *Zh. Neorg. Khim.*, 27, 1154(647) (1982)  
 1982KMD R Kiraly, R Martin; *Inorg. Chim. Acta*, 67, 13 (1982)  
 1982KRb M Kappel, K Raymond; *Inorg. Chem.*, 21, 3437 (1982)  
 1982LVa R Leppkes, F Vogtle, F Luppertz; *Chem. Ber.*, 115, 926 (1982)  
 1982MRb J Massaux, G Roland, J Desreux; *Inorg. Chim. Acta*, 60, 129 (1982)  
 1982MSb V Majer, K Stulik; *Talanta*, 29, 145 (1982)  
 1982PRA M Pesavento, C Riolo, T Soldi, R Garzia; *Ann. Chim. (Rome)*, 72, 217 (1982)  
 1982PSc Y Polykarpov, B Shcherbakov et al; *Izv. Akad. Nauk (USSR)*, 7, 1669 (1982)  
 1982SBa B Shcherbakov, F Belski et al; *Izv. Akad. Nauk (USSR)*, 3, 560(498) (1982)  
 1982SGb T Smirnova, I Gorelov, V Yakoubenok; *Zh. Neorg. Khim.*, 27, 1584(894) (1982)  
 1982SLc J Stary, J Liljenzin; *Pure & Appl. Chem.*, 54, 2557 (1982)  
 1982SSb H Sigel, K Scheller; *J. Inorg. Biochem.*, 16, 297 (1982)  
 1982SSF H Sigel, K Scheller, B Prijs; *Inorg. Chim. Acta*, 66, 147 (1982)  
 1982TSA M Taqui-Khan, S Satyanarayana; *Indian J. Chem.*, 21A, 913 (1982)

1981ANb G Anderegg; J.Coord.Chem.,11,171 (1981)  
 1981ASb T Ait-Hamouda,M Schwing-Weill; Analusis,9,93 (1981)  
 1981BKf E Bishop,S Kimber,D Orchard,B Smith; Biochim.Biophys.Acta,635,63 (1981)  
 1981CSb M Candida-Vaz, J.F da Silva; J.Inorg.Nucl.Chem.,43,1573 (1981)  
 1981EFa M Emara N Farid,A Wasfi; Electrochim.Acta,26,1705 (1981)  
 1981EIb H Einaga; J.Inorg.Nucl.Chem.,43,229 (1981)  
 1981FHa R Farmer,P Heubel,A Popov; J.Solution Chem.,10,523 (1981)  
 1981GMd F Gaizer,M Mate,J Lazar; Talanta,28,127 (1981)  
 1981Gva R Gowda,M Venkatappa; J.Electrochem.Soc.India,30,336 (1981)  
 1981HMa Z Huang,P May,D Williams et al; Inorg.Chim.Acta,56,41 (1981)  
 1981HWb G Hedwig,I Watson; J.Solution Chem.,10,411 (1981)  
 1981Kmb S Kulstad,L Malmsten; J.Inorg.Nucl.Chem.,43,1299 (1981)  
 1981KSa M Kamini,S Sindhwani,R Singh; Indian J.Chem.,20A,1040 (1981)  
 1981Lda D Lalart,G Dodin,J Dubois; J.Inorg.Nucl.Chem.,43,2429 (1981)  
 1981LGc D Lalart,J Guillerez,G Dodin; J.Chem.Soc.,Perkin Trans.II,1057 (1981)  
 1981Mgb M Mayadeo,R Ganti; J.Indian Chem.Soc.,58,614 (1981)  
 1981MMc R Mathur,P Mathur; Indian J.Chem.,20A,309 (1981)  
 1981NSc V Novak,M Svicekova et al; Chem.Zvesti,35,481 (1981)  
 1981OMA T Onaka,T Miyajima,S Ohashi; J.Inorg.Nucl.Chem.,43,3323 (1981)  
 1981SFa H Stetter,W Frank,R Mertens; Tetrahedron,37,767 (1981)  
 1981TKa B Khan,R Raju; Indian J.Chem.,20A,860 (1981)  
 1981TTa B Taqui-Khan,P Rao,M Taqui-Khan; Indian J.Chem.,20A,857 (1981)  
 1981WPa S Wu,G Pieper,J Salhany,R Eliot; Biochemistry,20,7399 (1981)  
 1981YYa H Yokoyama,H Yamatera; Bull.Chem.Soc.Jpn.,54,2286 (1981)  
 1980ARA R Aruga; Inorg.Chem.,19,2895 (1980)  
 1980BBc I Benedikovic,P Balgavy et al; Chem.Zvesti,34,78 (1980)  
 1980Bda M Brooker,B Deyoung; J.Solution Chem.,9,279 (1980)  
 1980ELb M Emara,C Lin,G Atkinson; Bull.Soc.Chim.Fr.,I,173 (1980)  
 1980ELc M Emara,C Lin; J.Indian Chem.Soc.,57,876 (1980)  
 1980GMd A Gupta,J Maize,R Gupta et al; Monatsh.Chem.,111,735 (1980)  
 1980JMb J de Jersey,R Martin; Biochemistry,19,1127 (1980)  
 1980Kbb Y Kozlov,V Babich; Zh.Neorg.Khim.,25,1692(940) (1980)  
 1980KRb R Kramer; Biochim.Biophys.Acta,592,615 (1980)  
 1980Lda L Lugina,N Davidenko; Zh.Neorg.Khim.,25,1454 (1980)  
 1980MCd J Morrison,W Cleland; Biochemistry,19,3127 (1980)  
 1980Mrc J Majer,R Rieckanska,Z Pikulikova; Chem.Zvesti,34,93 (1980)  
 1980Mva J Majer,T van Quy,I Valaskova; Chem.Zvesti,34,637 (1980)  
 1980PEa K Pearce; Australian J.Chem.,33,1511 (1980)  
 1980Rmb F Ramirez,J Marecek,J Szamosi; J.Org.Chem.,45,4748 (1980)  
 1980Rza E N Rizkalla,M T M Zaki; Talanta 27,769 (1980)  
 1980SAb K Scheller,T Abel,P Polanyi,H Sigel; Eur.J.Biochem.,107,455 (1980)  
 1980SHb H Stunzi,R Harris,D Perrin et al; Australian J.Chem.,33,2207 (1980)  
 1980TSb R Tsien; Biochemistry,19,2396 (1980)  
 1980WNa H Wada,G Nakagawa; Anal.Chim.Acta,121,265 (1980)  
 1980YKa K Yatsimirskii,M Kabachnik et al; Zh.Neorg.Khim.,25,1788(992) (1980)  
 1980Ytb M Yamada,M Takagi,K Ueno; J.Coord.Chem.,10,257 (1980)  
 1980ZRc M Zaki,E Rizkalla et al; Talanta,27,715 (1980)  
 1979ACA A Alberts,D Cram; J.Am.Chem.Soc.,101,3545 (1979)  
 1979DDd M Dias,J da Silva,A Xavier; Rev.Port.Quim.,21,5 (1979)  
 1979DZc N Davidenko,N Zinich; Zh.Neorg.Khim.,24,1608(891) (1979)

1979DZe N Davidenko, N Zinich; *Koord.Khim.*, 5, 3 (1979)  
 1979EFc M Emara, N Farid; *Egypt.J.Chem.*, 22, 89 (1979)  
 1979FFc F Fischer, A Fox; *J.Solution Chem.*, 8, 309 (1979)  
 1979FHa B Fischer, U Haring, R Tribolet, H Sigel; *Eur.J.Biochem.*, 94, 523 (1979)  
 1979GSc M Cromer-Morin, J Scharff; *Anal.Chim.Acta*, 104, 299 (1979)  
 1979HFa M Dias, J da Silva, A Xavier; *Revista Portuguesa De Quimica*, 5 (1979)  
 1979KBa M Kabachnik, F Belski et al; *Izv.Akad.Nauk(USSR)*, 8, 1726(1591) (1979)  
 1979KBb I Krznaric, J Bozic, N Kallay; *Croat.Chem.Acta*, 52, 183 (1979)  
 1979KBd Y Kozlov, V Babich; *Zh.Neorg.Khim.*, 24, 1386(769) (1979)  
 1979MBd J Majer, P Butvin et al; *Chem.Zvesti*, 33, 742 (1979)  
 1979MKb S Murao, M Kameda, T Nishino; *Agr.Biol.Chem.*, 43, 1795 (1979)  
 1979MTb M Mohan, M Taqui-Khan; *J.Coord.Chem.*, 8, 207 (1979)  
 1979NAb R Nakon; *Anal.Biochem.*, 95, 527 (1979)  
 1979PBa J Poldoski, T Bydalek; *J.Inorg.Nucl.Chem.*, 41, 205 (1979)  
 1979PKc G Prik, B Kozer, T Tselyanina; *Zh.Fiz.Khim.*, 53, 872 (1979)  
 1979PSa N Poonia, S Sarad, A Jayakumar et al; *J.Inorg.Nucl.Chem.*, 41, 1759 (1979)  
 1979RRb P Reddy, K Reddy, M Khan; *J.Inorg.Nucl.Chem.*, 41, 423 (1979)  
 1979RZa E Rizkalla, M Zaki; *Talanta*, 26, 507 (1979)  
 1979RZb E Rizkalla, M Zaki; *Talanta*, 26, 979 (1979)  
 1979SPb H Stunzi, D Perrin; *J.Inorg.Biochem.*, 10, 309 (1979)  
 1979SRa H Sigel, V Rheinberger, B Fischer; *Inorg.Chem.*, 18, 3334 (1979)  
 1979TPb H Trimm, R Patel; *Inorg.Chim.Acta*, 35, 15 (1979)  
 1979TSa L Tikhonova, O Samoilova, V Yashunskii; *Zh.Neorg.Khim.*, 24, 1237(688) (1979)  
 1979WNb M Wozniak, G Nowogrocki; *Talanta*, 26, 1135 (1979)  
 1978AKa G Arena, G Kavu, D Williams; *J.Inorg.Nucl.Chem.*, 40, 1221 (1978)  
 1978AMd R Adolfsen, E Moudrianakis; *J.Biol.Chem.*, 253, 4378 (1978)  
 1978ANa G Anderegg; *IUPAC Chemical Data Series*, No 14 (1978)  
 1978BBa K Burkov, E Busko et al; *Zh.Neorg.Khim.*, 23, 1767(971) (1978)  
 1978BBc J Bixler, A Bond; *Inorg.Chem.*, 17, 3684 (1978)  
 1978BRb H Brittain; *Anal.Chim.Acta*, 96, 165 (1978)  
 1978EFb M Emara, N Farid, G Atkinson; *Chem.Lett.*, 11A, 797 (1978)  
 1978EWa B Elgquist, M Wedborg; *Marine Chem.*, 6, 243 (1978)  
 1978KBa M Khan, M Babu; *J.Inorg.Nucl.Chem.* 40, 2110 (1978)  
 1978KHa D Karweik, C Huber; *Anal.Chem.(USA)*, 50, 1209 (1978)  
 1978LCa H Lundager, H Christensen et al; *Acta Chem.Scand.*, A32, 79 (1978)  
 1978LMa J Lehn, F Montavon; *Helv.Chim.Acta*, 61, 67 (1978)  
 1978MAb M Mohan, E Abbott; *J.Coord.Chem.*, 8, 175 (1978)  
 1978MAc M Mohan, E Abbott; *Inorg.Chem.*, 17, 2203 (1978)  
 1978MNa E Malakhov, V Nikolskii, I Gorelov; *Zh.Obshch.Khim.*, 48, 2601 (1978)  
 1978MOa T Miyajima, S Ohashi; *Bull.Chem.Soc.Jpn.*, 51, 2543 (1978)  
 1978MSd P Mitchell, H Sigel; *J.Am.Chem.Soc.*, 100, 1564 (1978)  
 1978NLa V Novak, J Lukansky et al; *Chem.Zvesti*, 32, 32 (1978)  
 1978NLb V Novak, J Lucansky, M Svicekova, J Majer; *Chem.Zvesti*, 32, 19 (1978)  
 1978RMc K Rajan, S Mainer, J Davis; *Bioinorg.Chem.*, 9, 187 (1978)  
 1978RRa P Reddy, K Reddy, M Khan; *J.Inorg.Nucl.Chem.*, 40, 1265 (1978)  
 1978SGc Y Svetogorov, I Gorelov; *Zh.Neorg.Khim.*, 23, 1211(668) (1978)  
 1978TLa R Thompson, E Li, O Spivey et al; *Bioinorg.Chem.*, 9, 35 (1978)  
 1978TSb K Timmers, R Sternglaz; *Bioinorg.Chem.*, 9, 145 (1978)  
 1978TZa L Timakova, B Zhadanov et al; *Zh.Obshch.Khim.*, 48, 1846 (1978)  
 1977ANb G Anderegg; *Z.Naturforsch.*, 32B, 547 (1977)

1977EIa H Einaga; J.Chem.Soc.,Dalton Trans.,912 (1977)  
 1977FFa F Fisher,A Fox; J.Solution Chem.,6,641 (1977)  
 1977FHC V Fedorova,A Hohlova; Zh.Neorg.Khim.,22,1215(662) (1977)  
 1977GFa J Granot,D Fiat; J.Am.Chem.Soc.,99,4963 (1977)  
 1977GNb I Gorelov,V Nikolskii; Zh.Obshch.Khim.,47,1696 (1977)  
 1977KCb I Kotlyarova,N Chyhrova,N Skorik; Zh.Neorg.Khim.,22,1482(807) (1977)  
 1977KGa F Kulba,F Gavruchenkov et al; Zh.Neorg.Khim.,22,1210(660) (1977)  
 1977RGB W Riesen,H Gamsjager et al; Geochim.Cosmo.Acta,1193 (1977)  
 1977SHb R Siebert,P Hostetler; Am.J.Sci.,277,697 (1977)  
 1977SHc R Siebert,P Hostetler; Amer.J.Sci.,277,716 (1977)  
 1977SIc H Sigel; J.Inorg.Nucl.Chem.,39,1903 (1977)  
 1977SVa J da Silva,M Vaz; J.Inorg.Nucl.Chem.,39,613 (1977)  
 1977Tia V Temkina,S Ivaschenko,N Tsiurlikova; Zh.Obshch.Khim.,47,2596 (1977)  
 1977TMa B Tummeler,G Maas,E Weber et al; J.Am.Chem.Soc.,99,4683 (1977)  
 1976ACc E Atlas,C Culberson,R Pytkowicz; Marine Chem.,4,243 (1976)  
 1976ANb G Anderegg; Z.Naturforsch.31B,786 (1976)  
 1976CJa R Coates,M Jones; J.Inorg.Nucl.Chem.,38,1549 (1976)  
 1976DGe P Dietsch,T Guenter,M Roehnel; Z.Naturforsch.31,661 (1976)  
 1976HHc S Hietanen,E Hogfeldt; Chemica Scripta,10,39;10,41 (1976)  
 1976JWa Z Jablonski,T Wasag,S Millo; Roczn.Chem.50,1467 (1976)  
 1976KOa U Klanning, Osterby; J.Chem.Soc.,Faraday Trans.I,72,513 (1976)  
 1976KRb M Khan,P Reddy; J.Inorg.Nucl.Chem.,38,1234 (1976)  
 1976KRb R Kobos,G Rechnitz; Arch.Biochem.Biophys.,175,11 (1976)  
 1976MMA R Motekaitis,I Murase,A Martell; Inorg.Chem.,15,2303 (1976)  
 1976NGb V Nikol'skii,I Gorelov; Zh.Neorg.Khim.,21,846 (1976)  
 1976PCb M Petit-Ramel,G Chottard,J Bolard; J.Chim.Phys.,73,181 (1976)  
 1976PSe L Pettit,K Siddiqui; Biochem.J.,159,169 (1976)  
 1976REa E Reardon; Chem.Geol.,18,309 (1976)  
 1976SFb H Stetter,W Frank; Angew.Chem.,15,686 (1976)  
 1976SSc R Sandhu,K Singh; Thermochim.Acta,17,325 (1976)  
 1976SSd S Sandhu,R Sandhu,J Kumaria; Indian J.Chem.,14A,366 (1976)  
 1976Tia V Temkina,S Ivaschenko et al; Zh.Obshch.Khim.,46,501 (1976)  
 1976TTb L I Tikhonova,G I Tkacheva; Zh.Neorg.Khim.21,3264 (1976)  
 1976VBC V P Vasil'ev, A K Belonogova; Zh.Neorg.Khim.21,1225 (1976)  
 1975AHa S Angyal,R Hickman; Australian J.Chem.,28,1279 (1975)  
 1975ANA G Anderegg; Helv.Chim.Acta,58,1218 (1975)  
 1975DTa N Dyatlova,V Temkina; Koord.Khim.,1,66 (1975)  
 1975EPa N Elenkova,E Popova; Talanta,22,925 (1975)  
 1975Ewa B Elgquist, M Wedborg; Marine Chem.,3,215 (1975)  
 1975FCC T Field,J Coburn,J McCourt,W McBryde; Anal.Chim.Acta,74,101 (1975)  
 1975GNb I Gorelov,V M Nikol'skii; Zh.Neorg.Khim.20,1717 (1975)  
 1975GSb S Grewal,B Sekhon,B Pannu et al; Indian J.Chem.,13,623 (1975)  
 1975IMa J Inczedy,J Marothy; Acta Chim.Acad.Sci.Hung.,86,1 (1975)  
 1975JBa M Jones,A Banks,C Brown; J.Inorg.Nucl.Chem.,37,761 (1975)  
 1975JLa F Jackman,M Lister; J.Solution Chem.,4,1023 (1975)  
 1975JTa R Jellish,L Thompson; J.Coord.Chem.,4,199 (1975)  
 1975KGa A I Kapustnikov,I P Gorelov; Zh.Neorg.Khim.20,904 (1975)  
 1975KIc L Kourbatova,A Ivakin,E Voronova; Koord.Khim.,1,1481 (1975)  
 1975Kwa R Kluger,P Wasserstein,K Nakaoka; J.Am.Chem.Soc.,97,4298 (1975)  
 1975LHa J Lauterwein,P Hemmerich,J-M Lhoste; Inorg.Chem.,14,2152 (1975)

1975LMd A Lazarev, Yu Makashev, V Mironov, B Lobov; Zh.Fiz.Khim., 49, 2258 (1975)  
 1975LMe W Leung, F Millero; J.Solution Chem., 4, 145 (1975)  
 1975LSc J Lehn, J Sauvage; J.Am.Chem.Soc., 97, 6700 (1975)  
 1975MHb K McGee, P Hostetler; Am.J.Sci., 275, 304 (1975)  
 1975MMc D MacMillan, I Murase, A Martell; Inorg.Chem., 14, 468 (1975)  
 1975MVA O Martynova, L Vasina et al; Dokl.Akad.Nauk SSSR, 862 (1975)  
 1975NGa V Nikolskii, I Gorelov; Zh.Neorg.Khim., 20, 3191(1764) (1975)  
 1975PAb S Parthasarathy, S Ambujavalli; Electrochim.Acta, 20, 611 (1975)  
 1975PJa T Pratt, M Jones; J.Inorg.Nucl.Chem., 37, 2403 (1975)  
 1975POa J Podlahova; Collec.Czech.Chem.Comm., 40, 3306 (1975)  
 1975SCd L Sucha, J Cadek, K Hrabek, J Vesely; Collec.Czech.Chem.Comm., 40, 2020 (1975)  
 1975SLa A Serdyukova, A Lazarev et al; Zh.Neorg.Khim., 20, 536 (1975)  
 1975TAa R Tamamushi; Bull.Chem.Soc.Jpn., 48, 705 (1975)  
 1975TRb V Temkina, M Rusina et al; Zh.Obshch.Khim., 45, 1564 (1975)  
 1975TRc M Taqui-Khan, P Reddy; J.Inorg.Nucl.Chem., 37, 771 (1975)  
 1975VBA V Vasil'ev, A Belonogova; Zh.Neorg.Khim., 20, 30 (1975)  
 1975YYa H Yokoyama, H Yamatera; Bull.Chem.Soc.Jpn., 48, 2708, 2719 (1975)  
 1974ARA R Aruga; J.Inorg.Nucl.Chem., 36, 3779 (1974)  
 1974BKd R Byrne, D Kester; J.Marine Research, 32, 119 (1974)  
 1974HHb J Havel, E Hogfeldt; Chemica Scripta, 5, 164 (1974)  
 1974JAb D Jagner; Anal.Chim.Acta, 68, 83 (1974)  
 1974KGa A Kapustnikov, I Gorelov; Zh.Neorg.Khim., 19, 3183(1742) (1974)  
 1974KKa M Taqui-Khan, C Krishnamoorthy; J.Inorg.Nucl.Chem., 36, 711 (1974)  
 1974KKc A Kreshkov, K Komarova, V Gorbachev; Elektrokhim., 10, 1082(E:1025) (1974)  
 1974MEa J Meyer; Anal.Biochem., 62, 295 (1974)  
 1974MSa M Miyazaki, Y Shimoishi, H Miyata et al; J.Inorg.Nucl.Chem., 36, 2033 (1974)  
 1974PHc R Pytkowicz, J Hawley; Limnol.Oceanography, 19, 223 (1974)  
 1974PKc I Perelygin, M Klimchuk; Zh.Fiz.Khim., 48, 2481(E:1466) (1974)  
 1974RLa E Reardon, D Langmuir; Am.J.Sci., 274, 599 (1974)  
 1974RMf E Riecanova, J Majer, A Bumbalova, M Kalina; Chem.Zvesti, 28, 332 (1974)  
 1974SSc P Santschi, P Schindler; J.Chem.Soc., Dalton Trans., 181 (1974)  
 1974TAa R Taylor; Talanta, 21, 1210 (1974)  
 1974YOa T Yoshino, H Okazaki, S Murakami, M Kagawa; Talanta, 21, 673; 676 (1974)  
 1973ACb V Anand, W Carper; Bull.Chem.Soc.Jpn., 46, 3077 (1973)  
 1973AHb J Ault, H Harries, J Burgess; J.Chem.Soc., Dalton Trans., 1095 (1973)  
 1973CGc R Cefina, J Gomez-Lara, R Contreras; J.Inorg.Nucl.Chem., 35, 4217 (1973)  
 1973CHA C Christ, P Hostetler et al; Am.J.Sci., 273, 65 (1973)  
 1973CSb R Chawla, R Singh; Microchem.J., 18, 646 (1973)  
 1973DSa P Das, O Sunar, C Trivedi; J.Inorg.Nucl.Chem., 35, 316; 677 (1973)  
 1973DSc E Dvorakova, M Struhar, J Majer et al; Chem.Zvesti, 27, 313 (1973)  
 1973HHa J Havel, E Hogfeldt; Acta Chem.Scand., 27, 3323 (1973)  
 1973HPa G Hedwig, H Powell; J.Chem.Soc., Dalton Trans., 793; 798; 1942 (1973)  
 1973KAb S Katayama; Bull.Chem.Soc.Jpn., 46, 106 (1973)  
 1973LJa P Laget, P Jallet, J Wafflart et al; J.Chim.Phys., 70, 1285 (1973)  
 1973LMA P Longhi, T Mussini et al; Chimia e Industria, 55, 888 (1973)  
 1973MAb M Mashihara, T Ando, I Murase; Bull.Chem.Soc.Jpn., 46, 844 (1973)  
 1973PCa D Park, W Choi, H Lee; Daehan Hwahak Hwoejee, 17, 256 (1973)  
 1973POa H Powell; J.Chem.Soc., Dalton Trans., 1947 (1973)  
 1973PTa R Patel, R Taylor; J.Phys.Chem., 77, 2318 (1973)

1973SBb J Sari, J Belaich; J. Am. Chem. Soc., 95, 7491 (1973)  
 1973SBd A Szymaszek, J Biernat; Monatsh. Chem., 104, 74 (1973)  
 1973SCd H Steger, A Corsini; J. Inorg. Nucl. Chem., 35, 1621 (1973)  
 1973SFa S Shimokawa, H Fukui, J Sohma, K Hotta; J. Am. Chem. Soc., 95, 1777 (1973)  
 1973SRa J Sari, M Ragot, J Belaich; Biochim. Biophys. Acta, 305, 1 (1973)  
 1973TKa M Taqui-Khan, C Krishnamoorthy; J. Inorg. Nucl. Chem., 35, 1285 (1973)  
 1973TRa M Taqui-Khan, P Reddy; J. Inorg. Nucl. Chem., 35, 179 (1973)  
 1973TRb M Taqui-Khan, P Reddy; J. Inorg. Nucl. Chem., 35, 2813; 2821 (1973)  
 1973UWb E Uhlig, D Walther; Z. Anorg. Allg. Chem., 397, 187 (1973)  
 1972DHa D Dyrssen, I Hansson; Marine Chem., 1, 137 (1972)  
 1972DKa E Dvorakova, B Kopecka, J Majer et al; Chem. Zvesti, 26, 316 (1972)  
 1972DSc P Das, O Sunar, C Trivedi; J. Indian Chem. Soc., 49, 1109 (1972)  
 1972FBa C Frey, J Banyasz, J Stuehr; J. Am. Chem. Soc., 94, 9198 (1972)  
 1972FSa C Frey, J Stuehr; J. Am. Chem. Soc., 94, 8898 (1972)  
 1972GBd I Gorelov, V Babich; Zh. Neorg. Khim., 17, 641 (1972)  
 1972GBe I Gorelov, V Babich; Zh. Obshch. Khim., 42, 434 (1972)  
 1972GJa J Gorton, R Jameson; J. Chem. Soc., Dalton Trans., 304; 307; 310 (1972)  
 1972HMb D Hague, S Martin, M Zetter; J. Chem. Soc., Faraday Trans. I, 68, 37 (1972)  
 1972HUa T Hata, T Uno; Bull. Chem. Soc. Jpn., 45, 2497 (1972)  
 1972HUb T Hata, T Uno; Bull. Chem. Soc. Jpn., 45, 477; 2497 (1972)  
 1972ISa I Inada, K Shimizu, J Osugi; Rev. Phys. Chem. Japan, 42, 1 (1972)  
 1972MCb G Manku, R Chadha, N Nayar, M Sethi; J. Inorg. Nucl. Chem., 34, 1091 (1972)  
 1972PIa K Pitzer; J. Chem. Soc., Faraday Trans. II, 68, 101 (1972)  
 1972RBA D Rorabacher, B Blencoe, D Parker; Anal. Chem., 44, 2339 (1972)  
 1972WFa H Wada, Q Fernando; Anal. Chem., 44, 1640 (1972)  
 1971ANb L Anisimova; Sbornik. soobshch. Dag. Univ., Khim., 7, 90 (1971)  
 1971BHc A Bond, G Hefter; J. Inorg. Nucl. Chem., 33, 429 (1971)  
 1971CHb C Childs; Can. J. Chem., 49, 2359 (1971)  
 1971CVa J Cadek, J Vesely, Z Sulcek; Collec. Czech. Chem. Commun., 36, 3377 (1971)  
 1971GBc I Gorelov, V Babich; Zh. Neorg. Khim., 16, 4, 902 (1971)  
 1971HPa E Hanna, A Pethybridge, J Prue; Electrochim. Acta, 16, 677 (1971)  
 1971HRA M Heyde, L Rimai; Biochemistry, 10, 1121 (1971)  
 1971ISb E Inada, K Shimizu, J Osugi; Nippon Kagaku Kaishi, 92, 1096 (1971)  
 1971ISc T Isono; Rikagaku Kenkyusho, 65, 95 (1971)  
 1971KBc A Kosak, W Ballczo; Fresenius' Z. Anal. Chem., 253, 188 (1971)  
 1971KMa K Kina, H Miyata, K Toei; Bull. Chem. Soc. Jpn., 44, 2710 (1971)  
 1971KMb T Katayama, H Miyata, K Toei; Bull. Chem. Soc. Jpn., 44, 2712 (1971)  
 1971KSA J Klinman, D Samuel; Biochemistry, 10, 2126 (1971)  
 1971KTc K Kina, K Toei; Bull. Chem. Soc. Jpn., 44, 2416 (1971)  
 1971KTL I Kiseleva, L Tikhonova, L Ivanova et al; Zh. Obshch. Khim., 41, 12, 2599 (1971)  
 1971LAa D Langmuir; Geochim. Cosmo. Acta, 35, 1023 (1971)  
 1971LSb P Lingaiah, E Sundaram; J. Indian Chem. Soc., 48, 961 (1971)  
 1971MAa G Manku; Australian J. Chem., 24, 925 (1971)  
 1971MAb G Manku; J. Inorg. Nucl. Chem., 33, 285 (1971)  
 1971MMe R Motekaitis, I Murase, A Martell; J. Coord. Chem., 1, 77 (1971)  
 1971MMh R Motekaitis, I Murase, A Martell; J. Inorg. Nucl. Chem., 33, 3353 (1971)  
 1971NAa F Nakayama; J. Chem. Eng. Data, 16, 178 (1971)  
 1971SBb R Sharma, P Bhattacharya; J. Indian Chem. Soc., 48, 581 (1971)  
 1971SCb V Svoboda, V Chromy; Anal. Chim. Acta, 54, 121 (1971)

- 1971SEa I Shikhova, M Ermakova, N Latosh; Zh.Obshch.Khim., 41, 6, 1329 (1971)
- 1971SYc Z Sheka, K Yatsimirskii, M Ablova et al; Zh.Neorg.Khim., 16, 9, 896; 2440 (1971)
- 1971TKc M Taqui-Khan, C Krishnamoorthy; J.Inorg.Nucl.Chem., 33, 1417 (1971)
- 1971TRa M Taqui-Khan, P Reddy; J.Inorg.Nucl.Chem., 33, 1427 (1971)
- 1971WNC M Wozniak, J Nicole, G Tridot; Compt.Rend., 272C, 635 (1971)
- 1971YBa R Yount, D Babcock, W Ballantyne et al; Biochemistry, 10, 2484 (1971)
- 1970AIa A Advani, H Irving, L Pettit; J.Chem.Soc.(A), 2649 (1970)
- 1970BOa A Bond, T O'Donnell; J.Electroanal.Chem., 26, 137 (1970)
- 1970BSg P Briggs, D Satchell, G White; J.Chem.Soc.(B), 1008 (1970)
- 1970BTa J Bunting, K Thong; Can.J.Chem., 48, 1654 (1970)
- 1970Cha C Christ, P Hostetler; Am.J.Sci., 268, 439 (1970)
- 1970Chc C Childs; Inorg.Chem., 9, 2465 (1970)
- 1970CMc E Clarke, A Martell; J.Inorg.Nucl.Chem., 32, 911 (1970)
- 1970DKa E Dvorakova, B Kopecka, J Majer et al; Chem.Zvesti, 26, 316 (1970)
- 1970ELd B Elgquist; J.Inorg.Nucl.Chem., 32, 937 (1970)
- 1970FGa A Fogg, A Gray, D Burns; Anal.Chim.Acta, 51, 265 (1970)
- 1970GMe B Gupta, W Malik; J.Indian Chem.Soc., 47, 145 (1970)
- 1970GTa A Grzybowski, S Tate, S Datta; J.Chem.Soc.(A), 241 (1970)
- 1970HAA L Harju; Anal.Chim.Acta, 50, 475 (1970)
- 1970HOa M Hirai, Y Oka; Bull.Chem.Soc.Jpn., 43, 778 (1970)
- 1970KDa P Kamat, M Datar; J.Indian Chem.Soc., 47, 1140 (1970)
- 1970KLf I Kaganskii, N Lopatina; Zh.Neorg.Khim., 15, 9, 2333 (1970)
- 1970KPa D Kester, R Pytkowicz; Geochim.Cosmo.Acta, 34, 1039 (1970)
- 1970LAE J Larson; J.Phys.Chem., 74, 3392 (1970)
- 1970NOa J Norby; Acta Chem.Scand., 24, 3276 (1970)
- 1970TNa G Tridot, S Nicole, M Wozniak; Chim.Anal.(Paris), 52, 265 (1970)
- 1970TTb N Tsiurlikova, V Temkina et al; Zh.Anal.Khim., 25, 5, 839 (1970)
- 1970YKa T Yano, H Kobayashi, K Ueno; Bull.Chem.Soc.Jpn., 43, 3167 (1970)
- 1969ALA A Aziz, S Lyle; Anal.Chim.Acta, 47, 49 (1969)
- 1969ASb S Arslanova, A Sorochan, M Senyavin et al; Uzbeksk.Khim.Zh., 4, 32 (1969)
- 1969BSc J Belaich, J Sari; Proc.Nat.Acad.Sci., US, 64, 763 (1969)
- 1969DDc S Dube, S Dhindsa; Z.Naturforsch., 24B, 967; 1234 (1969)
- 1969DMd N Dyatlova, V Medyntsev, T Balashova et al; Zh.Obshch.Khim., 39, 329 (1969)
- 1969GKb I Gorelov, M Kolosova; Zh.Neorg.Khim., 14, 10, 2687 (1969)
- 1969GSa H Gamsjager, P Schindler, B Kleinert; Chimia, 23, 229 (1969)
- 1969HEa H Helgeson; Am.J.Sci., 267, 729 (1969)
- 1969HLA D Hopgood, D Leussing; J.Am.Chem.Soc., 91, 3740 (1969)
- 1969HOD G Horn; Radex Rundschau, 439 (1969)
- 1969HRA H Hendrickson, J Reinertsen; Biochemistry, 8, 4855 (1969)
- 1969IEa R Izatt, D Eatough, J Christensen et al; J.Chem.Soc.(A), 45; 47 (1969)
- 1969NDA V Novak, E Dvorakova, J Majer; Chem.Zvesti, 23, 161 (1969)
- 1969NDb V Novak, E Dvorakova, M Svicekova et al; Chem.Zvesti, 23, 330 (1969)
- 1969NDc V Novak, E Dvorakova, M Svicekova et al; Chem.Zvesti, 23, 861 (1969)
- 1969PGa R Phillips, P George, R Rutman; J.Biol.Chem., 244, 3330 (1969)
- 1969PKb M Pivonkova, M Kyrs; J.Inorg.Nucl.Chem., 31, 175 (1969)
- 1969RGa W Riesen, H Gamsjager et al; Chimia, 23, 186 (1969)
- 1969RMA B Rodriguez, A Mederos; An.Quim., 65, 557 (1969)
- 1969SMd D Singh, A Mishra; Indian J.Chem., 7, 1219 (1969)
- 1969SRb A Sevastyanov, N Rudenko; Radiokhim., 11, 2, 251; 261 (1969)



- 1969SRC A Sevastyanov, N Rudenko; Radiokhim., 11, 3, 251 (1969)
- 1969SSc F Snaveley, D Sweigart; Inorg. Chem., 8, 1659 (1969)
- 1969VMa D Vartak, K Menon; J. Inorg. Nucl. Chem., 31, 3141 (1969)
- 1969VPa E Verdier, J Piro; Ann. Chim., (France), 4, 213 (1969)
- 1969ZSa V Zebic, D Skaric, V Skaric; Croat. Chem. Acta, 41, 235 (1969)
- 1968CIa R Carroll, R Irani; J. Inorg. Nucl. Chem., 30, 2971 (1968)
- 1968CLd A Carson, P Laye, P Smith; J. Chem. Soc. (A), 141, 1384 (1968)
- 1968KPa D Kester, R Pytkowicz; Limnol. Oceanography, 13, 670 (1968)
- 1968KRa I Khodakovskii, B Ryzhenko, G Naumov; Geokhim., 1486 (1968)
- 1968KTd S Kundra, L Thompson; J. Inorg. Nucl. Chem., 30, 1847 (1968)
- 1968MJa J Majer, V Jokl, E Dvorakova et al; Chem. Zvesti, 22, 415 (1968)
- 1968MMb Y Moriguchi, M Miyazaki, K Ueno; Bull. Chem. Soc. Jpn., 41, 1344 (1968)
- 1968MRb J Majer, E Riecanova; Chem. Zvesti, 22, 15 (1968)
- 1968MSa A Manome, K Saito; Bull. Chem. Soc. Jpn., 41, 2419 (1968)
- 1968MTd Y Murakami, M Takagi; J. Phys. Chem., 72, 116 (1968)
- 1968NMB S Nakashima, H Miyata, K Toei; Bull. Chem. Soc. Jpn., 41, 2632 (1968)
- 1968NPb G Nancollas, A Park; Inorg. Chem., 7, 58 (1968)
- 1968OVA G Ostacoli, A Vanni, E Roletto; Ricerca Sci., 38, 318 (1968)
- 1968PRd B Prasad; J. Indian Chem. Soc., 45, 1037 (1968)
- 1968RVA R Ripan, G Vericeanu; Stud. Univ. Babes-Bolyai, 13, 31 (1968)
- 1968SMB K Suzuki, T Mattori, K Yamasaki; J. Inorg. Nucl. Chem., 30, 161 (1968)
- 1968TWA S Tanner, J Walker, G Choppin; J. Inorg. Nucl. Chem., 30, 2067 (1968)
- 1968VGA B Voigt, A Gabert, E Leibnitz; J. Prakt. Chem., 37, 283 (1968)
- 1968WMC J Watters, R Machen; J. Inorg. Nucl. Chem., 30, 2163 (1968)
- 1968WRA H Wikberg, A Ringbom; Suomen Kem., B41, 177 (1968)
- 1967BMC B Budesinsky, K Maas, A Besdekova; Collec. Czech. Chem. Commun., 32, 1528 (1967)
- 1967BMD T Bohigian, A Martell; J. Am. Chem. Soc., 89, 832 (1967)
- 1967CCA R Carter, R Carroll, R Irani; Inorg. Chem., 1962, 6, 939 (1967)
- 1967CCb R Carter, R Carroll, R Irani; Inorg. Chem., 6, 939 (1967)
- 1967CCc R Carter, M Crutchfield, R Irani; Inorg. Chem., 6, 943 (1967)
- 1967CMc R Carroll, R Mesmer; Inorg. Chem., 6, 1137 (1967)
- 1967DSb N Dyatlova, I Seliverstova, O Samoilova; Proc. Acad. Sci. (USSR), 172, 4 (94) (1967)
- 1967GDb B Gupta, Y Dutt, R Singh; Indian J. Chem., 5, 214; 322 (1967)
- 1967GNb D Goddard, S Nwankwo; J. Chem. Soc. (A), 1371 (1967)
- 1967GNC D Goddard, S Nwankwo, L Staveley; J. Chem. Soc. (A), 1376 (1967)
- 1967HEb H Helgeson; J. Phys. Chem., 71, 3121 (1967)
- 1967KBb P Kamat, M Bapat, M Datar; J. Indian Chem. Soc., 44, 731 (1967)
- 1967KBc E King, R Barany, W Weller, L Pankratz; US Bureau Mines, Rept. Invest. 6962 (1967)
- 1967KDa M Kabachnik, I Dyatlova, T Medved; Proc. Acad. Sci. (USSR), 175, 621 (351) (1967)
- 1967KLa M Kabachnik, R Lastovskii, T Medved; Proc. Acad. Sci. (USSR), 177, 1060 (582) (1967)
- 1967LEa A Lerman; Geochim. Cosmo. Acta, 31, 2309 (1967)
- 1967LMd F L'Eplattenier, I Murase, A Martell; J. Am. Chem. Soc., 89, 837 (1967)
- 1967MAG W Marshall; J. Phys. Chem., 71, 3584 (1967)
- 1967NPb G Nickless, F Pollard, T Samuelson; Anal. Chim. Acta, 39, 37 (1967)
- 1967OTb N Okaku, K Toyoda, Y Moriguchi, K Ueno; Bull. Chem. Soc. Jpn., 40, 2326 (1967)

1967RMD Y Rutkovskii, V Mironov; Zh.Neorg.Khim., 12, 3287 (1967)  
 1967SFa R Stevenson, H Freiser; Anal.Chem., 39, 1354 (1967)  
 1967TMF M Taqui-Khan, A Martell; J.Am.Chem.Soc., 89, 5585; 7104 (1967)  
 1967TTb N Tripathy, K Tripathy; J.Indian Chem.Soc., 44, 329 (1967)  
 1967UKa E Uhlig, R Krannich; J.Inorg.Nucl.Chem., 29, 1164 (1967)  
 1967WIC W Wieker; Z.Anorg.Chem., 355, 20 (1967)  
 1966AKa M Abramson, R Katzman, H Gregor, R Curci; Biochemistry, 5, 2207 (1966)  
 1966APb V Athavale, L Prabhu, D Vartak; J.Inorg.Nucl.Chem., 28, 1237 (1966)  
 1966APc G Atkinson, S Petrucci; J.Phys.Chem., 70, 3122 (1966)  
 1966BBd A Bezdekova, B Budesinsky; Collec.Czech.Chem.Comm., 31, 199 (1966)  
 1966BSe W Bennett, D Skovlin; J.Inorg.Nucl.Chem., 28, 591 (1966)  
 1966HEa R Hering; J.Prakt.Chem., 34, 69 (1966)  
 1966HEb D Hange, M Eigen; Trans.Faraday Soc., 62, 1236 (1966)  
 1966IMa H Irving, M Miles; J.Chem.Soc.(A), 1268 (1966)  
 1966IMb H Irving, M Miles; J.Chem.Soc.(A), 727 (1966)  
 1966IPa H Irving, R Parkins; J.Inorg.Nucl.Chem., 28, 1629 (1966)  
 1966KCa R Knyazeva, G Chernova, G Zhukovskaya; Izv.VUZ.Khim., 9, 869 (1966)  
 1966KLc H Kroll, M Lipson, E Bolton; US AEC - Report TID, 22717, March 11, 1966  
 (1966)  
 1966LSd Z Leshchinskaya, N Selivanova; Zh.Neorg.Khim., 11, 260 (1966)  
 1966MKb J Majer, M Kotoucek, E Dvorakova; Chem.Zvesti, 20, 242 (1966)  
 1966MRb V Mironov, Y Rutkovskii; Zh.Neorg.Khim., 11, 1792 (1966)  
 1966OCb G Ostacoli, E Campi, A Vanni, E Roletto; Ricerca Sci., 36, 427 (1966)  
 1966OJa C Oestreich, M Jones; Biochemistry, 5, 2926 (1966)  
 1966PGa R Phillips, P George, R Rutman; J.Am.Chem.Soc., 88, 2631 (1966)  
 1966SHc G Shtacher; J.Inorg.Nucl.Chem., 28, 845 (1966)  
 1966SSc C Suelter, R Singleton, F Kayne; Biochemistry, 5, 131 (1966)  
 1966TMb M Taqui-Khan, A Martell; J.Am.Chem.Soc., 88, 668 (1966)  
 1966WFa H Waki, J Fritz; J.Inorg.Nucl.Chem., 28, 577 (1966)  
 1965ABa G Anderegg, E Bottari; Helv.Chim.Acta, 48, 887 (1965)  
 1965ANa G Anderegg; Helv.Chim.Acta, 48, 1712; 1718; 1722 (1965)  
 1965AUa T Ando, K Ueno; Inorg.Chem., 4, 375 (1965)  
 1965BBb S Boyd, A Bryson, G Nancollas, K Torrance; J.Chem.Soc., 7353 (1965)  
 1965BMf T Bohigian, A Martell; Inorg.Chem., 4, 1264 (1965)  
 1965BRb H Britzinger; Helv.Chim.Acta, 48, 47 (1965)  
 1965DKb N Dyatlova, M Kabachnik, T Medved; Proc.Acad.Sci.(USSR), 161, 307 (1965)  
 (1965)  
 1965FIb F Fisher; J.Phys.Chem., 69, 695 (1965)  
 1965HAb F Halla; J.Phys.Chem., 69, 1065 (1965)  
 1965HFb H Hendrickson, J Fullington; Biochemistry, 4, 1599 (1965)  
 1965HFa H Henderson, J Fullington; Biochemistry, 4, 1599 (1965)  
 1965JMb V Jokl, J Majer; Chem.Zvesti, 19, 249; 281 (1965)  
 1965JTa G Johari, P Tewari; J.Am.Chem.Soc., 87, 4691 (1965)  
 1965LCa R Lacoste, G Christoffers, A Martell; J.Am.Chem.Soc., 87, 2385 (1965)  
 1965MCb R McGilvery; Biochemistry, 4, 1924 (1965)  
 1965MCC A Mildvan, M Cohn; J.Biol.Chem., 240, 238 (1965)  
 1965PPb R Patnaik, S Pani; J.Indian Chem.Soc., 42, 527, 793 (1965)  
 1965SIA H Sigel; Helv.Chim.Acta, 48, 1513, 1519 (1965)  
 1965SMh F Snavely, W Magen, D Kozart; J.Inorg.Nucl.Chem., 27, 679 (1965)  
 1965TGA S Tate, A Grzybowski, S Datta; J.Chem.Soc., 3905 (1965)

1965TJa P Tewari,G Johari; J.Phys.Chem.,69,2857 (1965)  
 1965VTa F Verbeek,H Thun; Anal.Chim.Acta,33,378 (1965)  
 1965WHa D Wright,J Holloway,C Reilly; Anal.Chem.,37,884 (1965)  
 1964AMa D Archer,C Monk; J.Chem.Soc.,3117 (1964)  
 1964ANA G Anderegg; Helv.Chim.Acta,47,1801 (1964)  
 1964BBa E Blasius,B Brazio; Ber.Buns.Phys.Chem.,68,52 (1964)  
 1964BBE E Blasius,B Brozio; J.Electrochem.Soc.,68,52 (1964)  
 1964CMb J Cook,D Martin; J.Inorg.Nucl.Chem.,26,571 (1964)  
 1964COB E Campi,G Ostacoli,M Meirone,G Saini; J.Inorg.Nucl.Chem.,26,553 (1964)  
 1964DSc N Dyatlova,I Seliverstova,V Yashunskii; Zh.Obshch.Khim.,34,4061 (4003)  
 (1964)  
 1964EMb H Ellison,A Martell; J.Inorg.Nucl.Chem.,26,1555 (1964)  
 1964HKa H Holland,T Kirsipu,J Huebner,U Oxburgh; J.Geol.,62,36 (1964)  
 1964JVa K Jabalpurwala,K Venkatachalam,M Kabadi; J.Inorg.Nucl.Chem.,26,1011,1027  
 (1964)  
 1964KLa O Kolling,J Lambert; Inorg.Chem.,3,202 (1964)  
 1964LAa F L'Eplattenier,G Anderegg; Helv.Chim.Acta,47,1792 (1964)  
 1964LMa G Lenz,A Martell; Biochemistry,3,745;750 (1964)  
 1964MLa M Mandel,J Leyte; J.Polymer Sci.(part A),2,2883 (1964)  
 1964MTc Y Murakami,M Takagi; Bull.Chem.Soc.Jpn.,37,268 (1964)  
 1964OPa W O'Sullivan,D Perrin; Biochemistry,3,18 (1964)  
 1964PCa Personal Communication etc; Chem.Soc.Spec.Publ.,no.17 (1964)  
 1964SBa H Sigel,H Brintzinger; Helv.Chim.Acta,47,1701 (1964)  
 1964TGa S Tate,A Grzybowski,S Datta; J.Chem.Soc.,1381 (1964)  
 1964TMb S Tobia,N Milad; J.Chem.Soc.,1915 (1964)  
 1964USa H Usdowski; Naturwissenschaft,51,357 (1964)  
 1963AEa G Anderegg,F L'Eplattenier,Schwarzenbach; Helv.Chim.Acta,46,1390,1400;  
 1409 (1963)  
 1963ANa T Ando; Bull.Chem.Soc.Jpn.,36,1593 (1963)  
 1963ANb G Anderegg; Helv.Chim.Acta,46,1833;2813 (1963)  
 1963AND G Anderegg; Helv.Chim.Acta,46,1011 (1963)  
 1963ANF G Anderegg; Helv.Chim.Acta,46;1833 (1963)  
 1963ANG G Anderegg; Helv.Chim.Acta,46,2397 (1963)  
 1963CAa E Campi; Ann.Chim.(Italy),53,96 (1963)  
 1963CCa K Clarke,R Cowen,G Gray,E Osborne; J.Chem.Soc.,245 (1963)  
 1963DSa Y Dutt,R Singh; Indian J.Chem.,1,402 (1963)  
 1963GHa J Grimes,A Huggard,S Wilford; J.Inorg.Nucl.Chem.,25,1225 (1963)  
 1963GPb P George,R Phillips,R Rutman; Biochemistry,2,508 (1963)  
 1963HOb P Hostetler; Am.J.Sci.,261,238 (1963)  
 1963HOd P Hostetler; J.Phys.Chem.,67,720 (1963)  
 1963IFa H Irving,J Frausto da Silva; J.Chem.Soc.,1144 (1963)  
 1963IFb H Irving,J Frausto da Silva; J.Chem.Soc.,448;458;3308 (1963)  
 1963IFc H Irving,J Frausto da Silva; J.Chem.Soc.,945 (1963)  
 1963IPb H Irving,L Pettit; J.Chem.Soc.,3051 (1963)  
 1963JWa A Johansson,E Wanninen; Talanta,10,769 (1963)  
 1963KEa H Kroll,V Elkind,R Davis; US AEC - Report TID,19989,Dec.9 (1963)  
 1963LEa D Lewis; Acta Chem.Scand.,17,1891 (1963)  
 1963MDa J Majer,E Dvorakova; Chem.Zvesti,17,402 (1963)  
 1963MNC Y Murakami,K Nakamura,M Tokunaga; Bull.Chem.Soc.Jpn.,36,669 (1963)  
 1963SBd H Sigel,H Brintzinger; Helv.Chim.Acta,46,701;712 (1963)

1963SMb C Suelter, W Melander; J. Biol. Chem., 238, PC4108 (1963)  
 1963SRa J Stout, R Robie; J. Phys. Chem., 67, 2248 (1963)  
 1963STc J Stary; Anal. Chim. Acta, 28, 132 (1963)  
 1963TAa Y Tsuchitani, T Ando, K Ueno; Bull. Chem. Soc. Jpn., 36, 1534 (1963)  
 1963TFa A Taylor, A Frazier; Trans. Faraday Society, 59, 1580 (1963)  
 1962AMa H Asai, M Morales; Arch. Biochem. Biophys., 99, 383 (1962)  
 1962ANa T Ando; Bull. Chem. Soc. Jpn., 35, 1395 (1962)  
 1962CRa E Coates, B Rigg; Trans. Faraday Society, 58, 88; 2058 (1962)  
 1962ETa M Eigen, K Tamm; Z. Elektrochem., 66, 107 (1962)  
 1962GTa R Garrels, M Thompson; Am. J. Sci., 260, 57 (1962)  
 1962HBa Y Handschin, H Brintzinger; Helv. Chim. Acta, 45, 1037 (1962)  
 1962HKA R Hering, W Kruger, G Kuhn; Z. Chem., 2, 374 (1962)  
 1962IMb R Irani, K Moedritzer; J. Phys. Chem., 66, 1349 (1962)  
 1962MUa Y Murakami; Bull. Chem. Soc. Jpn., 35, 52 (1962)  
 1962OSa R Osterberg; Acta Chem. Scand., 16, 2434 (1962)  
 1962RKA A Roppongi, T Kato; Bull. Chem. Soc. Jpn., 35, 1086; 1092 (1962)  
 1962SCc F Snavely, G Craver; Inorg. Chem., 1, 890 (1962)  
 1962TMA M Taqui-Khan, A Martell; J. Am. Chem. Soc., 84, 3037 (1962)  
 1962TMb M Taqui-Khan, A Martell; J. Phys. Chem., 66, 10 (1962)  
 1961CAB V Chukhlantsev, K Alyamovskaya; Zh. Neorg. Khim., 6, 443 (1961)  
 1961DRa L Davis, F Roddy, D Metzler; J. Am. Chem. Soc., 83, 127 (1961)  
 1961GTa R Garrels, M Thompson, R Siever; Am. J. Sci., 259, 24 (1961)  
 1961HBA K Hotta, J Brahms, M Morales; J. Am. Chem. Soc., 83, 997 (1961)  
 1961IRA R Irani; J. Phys. Chem., 65, 1463 (1961)  
 1961ISa H Irving, M Stacey; J. Chem. Soc., 2019 (1961)  
 1961KEa H Kroll, V Elkind, R Davis; US AEC - Report TID, 14373 (1961)  
 1961KGA H Kroll, M Gordon; Fed. Proc., 20, No3, Part II, 51 (1961)  
 1961NAa L Nanninga; Biochim. Biophys. Acta, 54, 330 (1961)  
 1961OPa W O'Sullivan, D Perrin; Biochim. Biophys. Acta, 52, 612 (1961)  
 1961PFa A Patterson, H Freitag; J. Electrochem. Soc., 108, 529 (1961)  
 1961PSa P Proll, L Sutcliffe; Trans. Faraday Society, 57, 1078 (1961)  
 1961WAA M Walser; J. Phys. Chem., 65, 159 (1961)  
 1961YRB O Yanateva, I Rassonskaya; Zh. Neorg. Khim., 6, 1424 (1961)  
 1960ANb G Anderegg; Helv. Chim. Acta, 43, 414 (1960)  
 1960BMB T Bohigian, A Martell; Prog. Rep. US Atom. En. Comm. Con. At30-1-1823 (1960)  
 1960BMC T Bohigian, A Martell; US Comm. Con. no AT(30-1), -1823, Prog. Rep (1960)  
 1960CEa M Crutchfield, J Edwards; J. Am. Chem. Soc., 82, 3533 (1960)  
 1960DEa H Diehl, J Ellingboe; Anal. Chem., 32, 1120 (1960)  
 1960FFa P Feng, Q Fernando; J. Am. Chem. Soc., 82, 2115 (1960)  
 1960GDa M Golben, L Dawson; J. Phys. Chem., 64, 37 (1960)  
 1960GTa R Garrels, M Thompson, R Siever; Am. J. Sci., 258, 402 (1960)  
 1960HRA J Holloway, C Reilly; Anal. Chem., 32, 249 (1960)  
 1960KAB G Kortum, K Andrussov; Z. Phys. Chem., 25, 21 (1960)  
 1960KGA H Kroll, M Gordon; Ann. New York Acad. Sci., 88, 341 (1960)  
 1960PEd S Pelletier; Thesis, Univ. Paris (1960)  
 1960RAa J Raaflaub; Helv. Chim. Acta, 43, 629 (1960)  
 1960SFb C Sinistri, P Franzosini, G Ajroldi; Ricerca Sci., 30, 1584 (1960)  
 1960WAA E Wanninen; Acta Acad. Aboensias, XXI, 17 (1960)  
 1959BUa K Burton; Biochem. J., 71, 388 (1959)  
 1959BYa C Banks, R Yerick; Anal. Chim. Acta, 20, 301 (1959)

1959DDa J Das,P Das,D Patnaik; J.Indian Chem.Soc.,36,761 (1959)  
 1959HAB F Halla; Z.Phys.Chem.,21,349 (1959)  
 1959HOa Z Holzbecher; Collec.Czech.Chem.Comm.,24,3915 (1959)  
 1959KEb J Kenttamaa; Suomen Kem.,B32,9;55;68;220 (1959)  
 1959KRa H Kroll; US AEC - Contract(30-1),2096,Annual Rept (1959)  
 1959KRd J Kramer; J.Sediment Petrol.,29,465 (1959)  
 1959LLa N Li,A Lindenbaum,J White; J.Inorg.Nucl.Chem.,12,122 (1959)  
 1959MFa B Martin,W Fernelius; J.Am.Chem.Soc.,81,2342 (1959)  
 1959OKb A Okac,Z Kolarik; Collec.Czech.Chem.Comm.,24,266 (1959)  
 1959OSa R Osterberg; Ark.Kemi.,13,393 (Nature,1957,179,476) (1959)  
 1959RGa C Richard,R Gustafson,A Martell; J.Am.Chem.Soc.,81,1033 (1959)  
 1959RRc F Rossotti,H Rossotti; J.Phys.Chem.,63,1041 (1959)  
 1959SBa J Shack,B Bynum; Nature,184,635 (1959)  
 1959TVa E Takster,L Vinogradova,B Ptitsyn; Zh.Neorg.Khim.,4,347 (764) (1959)  
 1959WOa J Wolhoff,J Overbeek; Rec.Trav.Chim.,78,759 (1959)  
 1958DTa C Davies,G Thomas; J.Chem.Soc.,3660 (1958)  
 1958FFa A Frost,H Freedman,S Westerback et al; J.Am.Chem.Soc.,80,530 (1958)  
 1958ISa H Irving,R Shelton,R Evans; J.Chem.Soc.,3540 (1958)  
 1958KEa J Kenttamaa; Acta Chem.Scand.,12,1323 (1958)  
 1958KRa J Kramer; Bull.Geol.Soc.Amer.,69,1600 (1958)  
 1958KVa M Kabadi,K Venkatachalam; Curr.Sci.,27,337 (1958)  
 1958LCa N Li,M Chen; J.Am.Chem.Soc.,80,5678 (1958)  
 1958LUa P Lumme; Suomen Kem.,B31,232;250;253 (1958)  
 1958NNa V Nair,G Nancollas; J.Chem.Soc.,3706;4144 (1958)  
 1958OMb N Ockerbloom,A Martell; J.Am.Chem.Soc.,80,2351 (1958)  
 1958WAa E Walaas; Acta Chem.Scand.,12,528 (1958)  
 1958WSa G Weitzel,T Speer; Z.Physiol.Chem.,313,212 (1958)  
 1958YYa M Yasuda,K Yamasaki; Naturwissenschaft,45,84 (1958)  
 1958ZDa G Zubay,P Doty; Biochim.Biophys.Acta,29,47 (1958)  
 1957BDb W Bale,E Davies,D Morgan,C Monk; Trans.Faraday Society,24,94 (1957)  
 1957CFa C Callahan,W Fernelius,B Block; Anal.Chim.Acta,16,101 (1957)  
 1957CPa S Cohen,R Plane; J.Phys.Chem.,61,1096 (1957)  
 1957HRa G Hildebrand,C Reilly; Anal.Chem.,29,258 (1957)  
 1957JAb J Jordan,T Alleman; Anal.Chem.,29,9 (1957)  
 1957KFa K Khov,M Fomenko; Chem.Abs.,52,13510 (1957)  
 1957LUa P Lumme; Suomen Kem.,B30,176;182;194 (1957)  
 1957LWa S Lambert,J Watters; J.Am.Chem.Soc.,79,4262;5606 (1957)  
 1957LWb S Lambert,J Watters; J.Am.Chem.Soc.,79,5606 (1957)  
 1957MMA C Murphy,A Martell; J.Biol.Chem.,226,37 (1957)  
 1957NAC L Nanninga; J.Phys.Chem.,61,1144 (1957)  
 1957OSa R Osterberg; Nature,179,476 (1957)  
 1957SAa G Schwarzenbach,G Anderegg; Helv.Chim.Acta,40,1229 (1957)  
 1957SAb G Schwarzenbach,G Anderegg; Helv.Chim.Acta,40,1773 (1957)  
 1957SFb F Snavely,W Fernelius,B Douglas; J.Soc.Dyers and Colourists,73,491  
 (1957)  
 1957SRa R Schmid,C Reilly; Anal.Chem.,29,264 (1957)  
 1957SSa G Schwarzenbach,H Senn,G Anderegg; Helv.Chim.Acta,40,1886 (1957)  
 1957SYb K Suzuki,K Yamasaki; Naturwissenschaft,44,396 (1957)  
 1957TBb R Tichane,W Bennett; J.Am.Chem.Soc.,79,1293 (1957)  
 1957VAc V Vasilev; Zh.Fiz.Khim.,31,692 (1957)

1957WBa F Wold,C Ballou; J.Biol.Chem.,227,301 (1957)  
 1957WNa J Wiberg,W Neuman; Arch.Biochem.Biophys.,72,66 (1957)  
 1957WSa K Wallenfels,H Sund; Biochem.Z.,329,41 (1957)  
 1956ARd A Albert,C Rees; Nature,177,433;525 also 172,201 (1956)  
 1956BMa J Bevan,C Monk; J.Chem.Soc.,1392 (1956)  
 1956CHd V Chukhlantsev; Zh.Neorg.Khim.,1,1975 (1956)  
 1956CHe V Chukhlantsev; Zh.Neorg.Khim.,1,2300 (1956)  
 1956CSb R Care,L Staveley; J.Chem.Soc.,4571 (1956)  
 1956HMa V Hughes,A Martell; J.Am.Chem.Soc.,78,1319 (1956)  
 1956IFa R Irving,W Fernelius; J.Phys.Chem.,60,1427 (1956)  
 1956KEb J Kenttamaa; Suomen Kem.,B29,59 (1956)  
 1956MAa A Martell; Rec.Trav.Chim.,75,781 (1956)  
 1956MSa A Martell,G Schwarzenbach; Helv.Chim.Acta,39,653 (1956)  
 1956NAa G Nancollas; J.Chem.Soc.,744 (1956)  
 1956SAa R Smith,R Albery; J.Am.Chem.Soc.,78,2376 (1956)  
 1956SRb B Sarma,P Ray; J.Indian Chem.Soc.,33,841 (1956)  
 1956TMa G Thomas,C Monk; Trans.Faraday Society,52,685 (1956)  
 1955ASb G Anderegg,G Schwarzenbach; Helv.Chim.Acta,38,1940 (1955)  
 1955BIa D Bies; J.Chim.Phys.,23,428 (1955)  
 1955BKa M Bobtelsky,S Kertes; Bull.Soc.Chim.Fr.,328 (1955)  
 1955BPb P Brown,J Prue; Proc.Roy.Soc.(A),232,320 (1955)  
 1955GMa F Gimblett,C Monk; Trans.Faraday Society,51,793 (1955)  
 1955HOa E Holst; Diss.Pennsylvania State College (1955)  
 1955LUa P Lumme; Ann.Acad.Sci.Fennicae,68,7 (1955)  
 1955NUa R Nasanen,E Usitalo; Suomen Kem.,B28,17 (1955)  
 1955RSa R Robinson,R Stokes; "Electrolyte Solutions",p.396;400 (1955)  
 1955SAA G Schwarzenbach,G Anderegg et al; Helv.Chim.Acta,38,1147 (1955)  
 1955SKa K Sone,P Krumholz,H Stammerich; J.Am.Chem.Soc.,77,777 (1955)  
 1954AGb G Anderegg,H Glaschka,R Sallmann et al; Helv.Chim.Acta,37,113 (1954)  
 1954BFb B Bryant,W Fernelius; J.Am.Chem.Soc.,76,1696 (1954)  
 1954BFc B Bryant,W Fernelius; J.Am.Chem.Soc.,76,3783 (1954)  
 1954BFd B Bryant,W Fernelius; J.Am.Chem.Soc.,76,4864 (1954)  
 1954CFa R Charles,H Freiser; Anal.Chim.Acta,11,1;101 (1954)  
 1954CHa R Charles; J.Am.Chem.Soc.,76,5854 (1954)  
 1954CMA S Chaberek,A Martell; J.Am.Chem.Soc.,76,215 (1954)  
 1954CTa R Connick,M Tsao; J.Am.Chem.Soc.,76,5311 (1954)  
 1954DMb C Davies,C Monk; Trans.Faraday Society,50,132 (1954)  
 1954HPa L Holt,J Pierce,C Kajdi; J.Colloid Sci.,9,409 (1954)  
 1954IHa R Izatt,C Haas,B Block,W Fernelius; J.Phys.Chem.,58,1133 (1954)  
 1954IRa H Irving,H Rossotti; J.Chem.Soc.,2910;3494 (1954)  
 1954JFa W Johnson,H Freiser; Anal.Chim.Acta,11,201 (1954)  
 1954NUa R Nasanen,E Usitalo; Acta Chem.Scand.,8,112;835 (1954)  
 1954SGa G Schwarzenbach,R Gut,G Anderegg; Helv.Chim.Acta,37,937 (1954)  
 1954UFA L van Uitert,W Fernelius; J.Am.Chem.Soc.,76,375 (1954)  
 1953ALa A Albert; Biochem.J.,54,646 (1953)  
 1953BFa B Bryant,W Fernelius,B Douglas; J.Am.Chem.Soc.,75,3784 (1953)  
 1953CCa S Chaberek,R Courtney,A Martell; J.Am.Chem.Soc.,75,2185 (1953)  
 1953CCb R Courtney,S Chaberek,A Martell; J.Am.Chem.Soc.,75,4814 (1953)  
 1953CGa A Chakraborty,N Ghosh,P Ray; J.Indian Chem.Soc.,30,185 (1953)  
 1953CMA S Chaberek,A Martell; J.Am.Chem.Soc.,75,2888 (1953)

1953KMa J Klotz,W Ming; J.Am.Chem.Soc.,75,4159 (1953)  
 1953KPa H Kroll,J Powers; Am.Chem.Soc.,Abstract 124th Meeting,129 (1953)  
 1953KPb H Kroll,J Powers,G Pinching,F Butler; Am.Chem.Soc.,Abstract 124th Meeting,124 (1953)  
 1953LMa R Lumb,A Martell; J.Phys.Chem.,57,690 (1953)  
 1953NAb R Nasanen; Suomen Kem.,B26,2;11;37;67;69 (1953)  
 1953UFa L van Uitert,W Fernelius,B Douglas; J.Am.Chem.Soc.,75,2736 (1953)  
 1953UFb L Uitert,W Fernelius,B Douglas; J.Am.Chem.Soc.,75,2736;2739;457 (1953)  
 1953UFe L van Uitert,W Fernelius,B Douglas; J.Am.Chem.Soc.,75,457;2736;2739 (1953)  
 1952ALa A Albert; Biochem.J.,50,690 (1952)  
 1952CCa S Chaberek,R Courtney,A Martell; J.Am.Chem.Soc.,74,5057 (1952)  
 1952CMc S Chaberek,A Martell; J.Am.Chem.Soc.,74,6228 (1952)  
 1952EMa J Evans,C Monk; Trans.Faraday Society,48,934 (1952)  
 1952FYa W Fyfe; J.Chem.Soc.,2018;2023 (1952)  
 1952GMB C Gibby,C Monk; Trans.Faraday Society,48,632 (1952)  
 1952JFa W Johnston,H Freiser; J.Am.Chem.Soc.,74,5239 (1952)  
 1952JMb H Jones,C Monk; Trans.Faraday Society,48,929 (1952)  
 1952NAa R Nasanen; Acta Chem.Scand.,6,532 (1952)  
 1952NEa R Nasanen,A Ekman; Acta Chem.Scand.,6,1384 (1952)  
 1952SAb G Schwarzenbach,G Anderegg,R Sallmann; Helv.Chim.Acta,35,1785;1796 (1952)  
 1952SNa F Snavely; Inv.Coord.Arylazo Cmpds.,Penn.State Coll (1952)  
 1951BAa J Barney,W Argersinger,C Reynolds; J.Am.Chem.Soc.,73,3785 (1951)  
 1951DJa H Dunsmore,J James; J.Chem.Soc.,2925 (1951)  
 1951DMb T Denney,C Monk; Trans.Faraday Society,47,992 (1951)  
 1951MOa C Monk; Trans.Faraday Society,47,285;292/7;1233 (1951)  
 1951NLa R Nasanen,P Lumme,A Mukula; Acta Chem.Scand.,5,1199 (1951)  
 1951SRa G Schwarzenbach,P Ruckstuhl,J Zurc; Helv.Chim.Acta,34,455 (1951)  
 1951UFa L van Uitert,W Fernelius,B Douglas; US AEC - Report NYO,626(Mrch);727(May) (1951)  
 1951VIa E Vinogradova; Trudy An.Khim.Akad.Nauk SSSR,3,127;138 (1951)  
 1950ALa A Albert; Biochem.J.,47,531 (1950)  
 1950JMb H Jones,C Monk; J.Chem.Soc.,3475 (1950)  
 1949GOB M Golben; Thesis,Univ.Kentucky,Univ.Microf.60-1223 (1949)  
 1949JMa H Jones,C Monk,C Davies; J.Chem.Soc.,2693 (1949)  
 1949MMA L Maley,D Mellor; Australian J.Sci.Res.,A,2;92;579 (1949)  
 1949PEa K Pedersen; Acta Chem.Scand.,3,676 (1949)  
 1949SAa G Schwarzenbach,H Ackermann,P Ruckstuhl; Helv.Chim.Acta,32,1175;1682 (1949)  
 1949SDa D Stock,C Davies; J.Chem.Soc.,1371 (1949)  
 1949SGa G Schwarzenbach,H Gysling; Helv.Chim.Acta,32,1314 (1949)  
 1949ZUa J Zurc; Diss.Univ.Zurich (1949)  
 1948KAa G Krige,R Arnold; J.S.African Chem.Inst.,1,61 (1948)  
 1948SAa G Schwarzenbach,H Ackermann; Helv.Chim.Acta,31,1029 (1948)  
 1948SBa G Schwarzenbach,W Bierdermann; Helv.Chim.Acta,31,331;456;678 (1948)  
 1948SCa J Schubert; J.Phys.& Colloid Chem.,52,340 (1948)  
 1948SDa D Stock,C Davies; Trans.Faraday Society,44,856 (1948)  
 1947SAa G Schwarzenbach,H Ackermann; Helv.Chim.Acta,30,1798 (1947)  
 1947SWa G Schwarzenbach,A Willi,R Bach; Helv.Chim.Acta,30,1303 (1947)

1946SKa G Schwarzenbach,E Kampitsch,R Steiner; Helv.Chim.Acta,29,364 (1946)  
 1946STa C Stephenson; J.Am.Chem.Soc.,68,721 (1946)  
 1945COa G Coates; J.Chem.Soc.,478 (1945)  
 1945SKa G Schwarzenbach,E Kampitsch,R Steiner; Helv.Chim.Acta,28,1133 (1945)  
 1945SKb G Schwarzenbach,E Kampitsch,W Beidermann; Helv.Chim.Acta,28,828 (1945)  
 1943DVa P Derr,W Vosburgh; J.Am.Chem.Soc.,65,2408 (1943)  
 1943THa H Tabor,A Hastings; J.Biol.Chem.,148,627 (1943)  
 1942NAb R Nasanen; Z.Phys.Chem.,A190,183 (1942)  
 1941BJa J Bjerrum; Thesis,repr.1957,P.Haase&Son,Copenhagen (1941)  
 1941GRa I Greenwald; J.Biol.Chem.,141,789 (1941)  
 1941NAa R Nasanen; Z.Phys.Chem., 188,272 (1941)  
 1940GRa I Greenwald,J Redish,A Kibrick; J.Biol.Chem.,135,65 (1940)  
 1940MSa W Mason,W Shutt; Proc.Roy.Soc.(A),175,234 (1940)  
 1939PEa K Pederson; Trans.Faraday Society,35,277 (1939)  
 1938CKa R Cannon,A Kibrick; J.Am.Chem.Soc.,60,2314 (1938)  
 1938DAa C Davies; J.Chem.Soc.,277;2093 (1938)  
 1938WDa W Wise,C Davies; J.Chem.Soc.,273 (1938)  
 1935HRa F Halla,F Ritter; Z.Phys.Chem.,A175,63 (1935)  
 1934HMa A Hastings,P McLean,L Eichelberger; J.Biol.Chem.,107,351 (1934)  
 1932MDa R Money,C Davies; Trans.Faraday Society,28,609 (1932)  
 1930DAa C Davies; J.Chem.Soc.,2410;2421 (1930)  
 1929KLa W Kline; J.Am.Chem.Soc.,51,2093 (1929)  
 1928SIa H Simms; J.Phys.Chem.,32,1191 (1928)  
 1927DAb C Davies; Trans.Faraday Society,23,351 (1927)  
 1925BRa H Britton; J.Chem.Soc.,127,2110;2148;2796;2956 (1925)  
 1925GJa J Gjaldbaek; Z.anorg.Chem., 144,269 (1925)  
 1924RKa H Remy,A Kuhlmann; Z.Anal.Chem., 65,161 (1924)  
 1923BOa W Bottger; Landolt-Bornstein,"Tabellen",II,1180/1/5 (1923)  
 1923KOa I Kolthoff; Rec.Trav.Chim., 42,969;973 (1923)  
 1923MIa A Mitchell; J.Chem.Soc.,123,1887 (1923)  
 1915JOa J Johnston; J.Am.Chem.Soc.,37,2001 (1915)  
 1913KUa C Kullgren; Z.Phys.Chem.,85,466 (1913)  
 1910BUa K Bube; Zh.Anal.Khim.,49,525 (1910)  
 1900BOa G Bodlander; Z.Phys.Chem.,35,23 (1900)

#### 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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