

SC-Database

Software version = 5.81 Data version = 4.62

Experiment list contains 2363 experiments for

(no ligands specified)

2 metals : Pb++, Pb++++

(no references specified)

(no experimental details specified)

e- HL Electron (442)
Electron;

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

K=8.44(249.4 mV)
K: $\text{PbO(s,r)} + 2\text{H} + 2\text{e} = \text{Pb(s)} + \text{H}_2\text{O}$. K=7.70(45 C; 243.0 mV)

Pb++ EMF oth/un 18°C 8.40M U 1922GRa (782) 11
K=-21.23(-613 mV)

Medium: KOH. K: $\text{Pb(OH)}_4 + 2\text{e} = \text{Pb(s)} + 4\text{OH}^-$?

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

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

Pb++ oth oth/un 25°C 0.0 U 1990SAa (1156) 12
*K($\text{Pb}_3\text{L}_2(\text{s}) + 2\text{H} = 3\text{Pb} + 2\text{HL}$) = -9.07

Calculated from thermodynamic data.

Pb++ sol oth/un 20°C var U 1956CHc (1157) 13
Kso(Pb_3L_2) = -35.39

BF4- HL (2497)
Tetrafluoroborate;

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

Pb++ vlt non-aq 22°C 100% U B2=7.5 1988BEb (1201) 14
Medium: CH_2Cl_2

BO4H4- HL Borate CAS 10043-35-3 (991)
Borate; B(OH)_4^-

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

Pb++ oth KNO_3 25°C 0.70M C K1=2.20 B2=4.41 1984BEa (1323) 15
Method: Differential pulse anodic stripping voltammetric (DPASV)

Pb++ vlt NaClO_4 25°C 0.70M C K1=<3.5 B2= 7.08 1983TVa (1324) 16
Methods: DC, NP and DP polarography.

Pb++ sol none 22°C 0.0 U K1=5.21 1963SHb (1325) 17
B3=11.17
Kso=-10.78

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

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

Pb++ ISE NaClO_4 25°C 1.00M U K1=1.10 B2=1.38 1990HEa (2158) 18
B3=2.38

Method: lead amalgam electrode.

Pb++	ISE	NaClO4	25°C	4.06M	U	K1=1.34 B3=3.10 B4=3.03 B5=3.15 B6=2.14	B2=2.19	1989FSb	(2159)	19

Pb++	vlt	NaClO4	25°C	1.0M	C	K1=1.35 B3=3.26	B2= 2.25	1988MFb	(2160)	20
Analysis of literature data, applying correction for adsorption on Hg drop										

Pb++	sp	oth/un	25°C	1.00M	U	K1=1.12 B3=2.07 B4=1.77	B2=1.66	1982BYa	(2161)	21
Medium: mixed HBr-HClO4 solutions.										

Pb++	ISE	non-aq	295°C	100%	U T H	K1=2.18	B2=4.06	1982GGa	(2162)	22
Medium: molten KNO3-Ba(NO3)2 (87.6:12.4 mol%). Data also at 285, 332 C										

Pb++	sp	non-aq	25°C	100%	U	K(PbBr3+Br)=1.6		1982JAa	(2163)	23
Medium: propylene carbonate, LiBr										

Pb++	dis	NaClO4	25°C	1.00M	U	K1=0.93 B3=2.0	B2=1.6	1982KSa	(2164)	24

Pb++	ISE	non-aq	25°C	100%	U	K1=4.5 B3=10.9	B2=8.3	1982SSc	(2165)	25
Medium: dimethylacetamide										

Pb++	EMF	oth/un	25°C	0.0	C T H	K1=1.62	1981PPa		(2166)	26
Method: Ag/AgBr,Br- electrode. Extrapolated from data for 0.014-0.03 M (PbBr2/HBr). Data for 5-35 C. DH(K1)=8.14 kJ mol-1, DS(K1)=59 J K-1 mol-1.										

Pb++	ISE	oth/un	50°C	var	U TI	K1=2.43	B2=4.68	1979ZMa	(2167)	27
Medium: Ca(NO3)2.aNH4NO3.xH2O. Data quoted applies when a= 1.5 and x= 5.77. Further data available for 50 to 65 C and for various a and x values										

Pb++	ISE	KNO3	25°C	0.10M	C	K1=1.50 Kso(PbBr2)=-4.32	1977BLc		(2168)	28
Method: Pb and Ag/AgBr ion selective electrodes.										

Pb++	ISE	diox/w	25°C	30%	U I	K1=1.73 B3=3.67 B4=2.22	B2=2.73	1976DFa	(2169)	29
Pb(Hg)-electrode; Medium: 30% w/w dioxan/H2O, LiClO4										

Pb++	sol	NaClO4	25°C	1.00M	U I	K1=1.18	1976FSa		(2170)	30

Pb++	ISE	NaClO4	25°C	1.0M	U	K1=1.09	B2=1.41	1973BHb	(2171)	31

B3=2.36

Method: Pb amalgam electrode

Pb++ kin NaClO4 25°C 0.10M U I K1=1.35 1973HHb (2172) 32
K1=1.16(I=1)

Pb++ ISE non-aq 25°C 100% U K1=4.48 B2=6.81 1973SLb (2173) 33
B3=7.64

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

Pb++ sp NaClO4 25°C 4.0M U 1973VIa (2174) 34
K1=1.505-0.013 C
B2=1.443-0.002 C
B3=2.996-0.095 C
B4=2.693+0.054 C

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

Pb++ EMF NaClO4 25°C 2.0M U I K1=1.20 B2=1.40 1972FSe (2175) 35
B3=2.36
B4=2.48
B5=1.54

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

Pb++ EMF none 25°C 0.0 U I K1=1.64 B2=2.49 1972FSe (2176) 36
B3=2.86
B4=2.20

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

Pb++ EMF R4N.X 40°C ? U T K1=2.09 B2=3.60 1972NGa (2177) 37
Medium: NH4NO3(H2O)2; K1=2.04, K2=1.66(55 C); K1=2.00, K2=1.68(70 C). DH(K1)=
-10.9 kJ mol⁻¹. At 70 C, 1.5H2O: K1=2.08, K2=1.92. 3H2O: K1=1.89, K2=1.76

Pb++ EMF none 25°C 0.0 U K1=1.69 B2=1.9 1972SFa (2178) 38
B3=2.9

Pb++ vlt NaClO4 25°C 1.0M U K1=1.40 B2=2.30 1971BHB (2179) 39
B3=3.30

Pb++ sol NaClO4 25°C 3.0M U K1=1.28 1970FSb (2180) 40
B(Pb2L)=0.8

Medium: LiClO4

Pb++ EMF non-aq 25°C 100% U K1=3.4 B2=6.3 1970SZa (2181) 41
B3=9.0
B4=11.8

Medium: DMF, 1 M LiClO4

Pb++ EMF non-aq 250°C 100% U K1=2.66 B2=4.74 1969GSe (2182) 42
Medium: (Na,K)NO3

Pb++ oth non-aq 700°C 100% U K3=0.7 1968BHa (2183) 43

Methods: partial pressure of PbBr2, mass spectrometry. Medium: KBr/PbBr2 melt

Pb++ ISE NaClO4 5°C 3.0M U T K1=1.34 B2=2.33 1968FSc (2184) 44
B3=2.92
B4=3.19

Method: amalgam electrode. Medium: LiClO4. At 65 C: K1=1.31, B2=2.27, B3=2.88, B4=2.73. DH(K1)=-2.2 kJ mol⁻¹, DH(B2)=-5.8, DH(B3)=-6.2, DH(B4)=-15.5

Pb++ vlt non-aq 145°C 100% U K1=1.87 B2=3.25 1968ILa (2185) 45
Medium: (Li/Na/K)NO3 eutectic. m units

Pb++ sol oth/un 25°C 4.0M U K1=1.07 B2=2.20 1966NHb (2186) 46
B4=3.43
B6=2.87

Medium: H2SO4

Pb++ sol non-aq 275°C 100% U T K1=1.30 1965SPa (2187) 47
Medium: (Na,K)NO3. K1=1.28(300 C) m units

Pb++ EMF NaClO4 25°C 3.0M U K1=1.30 B2=1.90 1964BLc (2188) 48
B3=2.5
B4=2.81
Kso=-5.28

Pb++ EMF NaClO4 25°C 3.0M U 1964BLc (2189) 49
K(Pb+2Br+Br2=Pb(IV)Br4)=3.58
K(Pb+4Br+Br2=Pb(IV)Br6)=4.23

Pb++ ISE non-aq 200°C 100% U T K1=2.86 B2=5.34 1964BMa (2190) 50
Medium: molten (Li/K)NO3. At 160 C: K1=3.00, K2=2.60, x units

Pb++ dis non-aq 450°C 100% U K1=0.82 B2=1.7 1963KEb (2191) 51
Medium: liquid KNO3. m units. Kd(PbBr2(in KNO3)=PbBr2(in AgNO3))=0.26

Pb++ EMF non-aq 240°C 100% U T K1=2.40 B2=4.50 1963MBc (2192) 52
Method: Ag electrode. K1=2.28(280 C), 2.23(300 C). K2=1.93(280 C), 1.85(300 C). Medium: liquid Na0.5K0.5NO3, x units. Also data for 25 and 75% Na.

Pb++ EMF oth/un 25°C 4.0M U H 1963MId (2193) 53
K(Na+PbBr4)=-0.96
K(K+PbBr4)=0.00
K(Rb+PbBr4)=0.15
K(Cs+PbBr4)=0.26

Method: Pb/Hg electrode. Medium: LiClO4. At 35C: K(K+PbBr4)=-0.12, DH=-21 kJ mol⁻¹; DS=-71 J K⁻¹ mol⁻¹

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

B4=3.33

Medium: HCONH_2 , 1 M NaClO_4 ?

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

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

Pb++	sol oth/un	25°C	dil	U	T	M	1958TPb	(2204)	64
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K_{so}=-9.09(0 C), -7.96(50 C), -7.51(75 C), -7.17(100 C) K_{so}(PbFBr)=-8.48

Pb++	EMF	none	17°C	0.0	U	K1=2.22	1956CHa	(2205)	65
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$$K(\text{PbBrOH}(s) = \text{Pb} + \text{Br} + \text{OH}) = -14.8$$
$$K_{so}(\text{PbBr}_{0.50}\text{H}_{1.5}) = -17.45$$

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

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

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

$$K_3 = 0.75$$

Pb++	sp	none	25°C	0.0	U	K1=1.77	1955BPa	(2208)	68
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Pb++ con none 25°C 0.0 U T H K1=1.47 1955NAa (2209) 69

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

Pb++	sp	none	18°C	0.0	U	I	K1=1.85	1955PPa	(2210)	70
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I=0 corr. K1 also for H2O/MeOH

Pb++	EMF	none	?	0.0	U	K1=2	1951CHa	(2211)	71
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$$K(\text{PbBrOH}(s) = \text{Pb} + \text{Br} + \text{OH}) = -14.70$$
$$K_{so}(\text{PbBr}_{0.5}(\text{OH})_{1.5}) = -17$$

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

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

Pb++	EMF none	25°C	0.0	U	1932CSa	(2213)	73
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$$K(\text{PbBr}_2(s) = \text{Pb} + 2\text{Br}) = -4.41$$

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

Pb++	sp	none	22°C	0.0	U	K1=1.15	1931FLa	(2214)	74
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Pb++	sol oth/un	25°C	var	U	1926BUa	(2215)	75
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$$B3=3.3$$

Pb++	sol oth/un	25°C	var	U	K1=1.14	1901ENa	(2216)	76
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$$K_{so}(PbL_2) = -4.56$$
$$K(\text{PbL}_2(s) = \text{PbL} + \text{L}) = -3.42$$

$$K(\text{PbL2(s)}=\text{PbL2})=-2.97$$

BrO3- HL Bromate (6017)
Bromate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	sol	none	25°C	0.0	U		K1=1.84 Kso(PbL2)=-5.10	1936MHa (2428)	77

CN- HL Cyanide CAS 74-90-8 (230)
Cyanide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	non-aq	183°C	100%	U		K1=2.4	1966BJa (2750)	78
Medium: molten KSCN, 180-185 C, ion fraction units									
Pb++	vlt	oth/un	?	1.0M	U		B4=10.3?	1941KLa (2751)	79

Medium: KCN.

CO3-- H2L Carbonate CAS 465-79-6 (268)
Carbonate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	3.00M	C		B(1,-1,1)=-6.09 B(2,-2,1)=-10.51 B(3,-2,1)=-9.20	1992NEa (3319)	80
B(p,q,r); pPb+qH+rCO2(g)+r(H2O)=(Pb)pHq(CO2)r(H2O)r									

Pb++	ISE	NaClO4	25°C	3.00M	C		B2=8.9 B(Pb(OH)L)=10.9	1987FGb (3320)	81
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Pb++	oth	oth/un	25°C	0.0	C	H	K1=7.20 K(Pb+HCO3)=1.90	1984FCa (3321)	82
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K(Pb+HCO3) calc using electrostatic model. K1 from assessment of lit data.
DH(K1)=-17.1 kJ mol⁻¹, DH(Pb+HCO3)=3.6 (from DS calc by electrostat model)

Pb++	gl	NaClO4	25°C	0.30M	U		Kso=-12.15 *Kso=5.20	1982BSa (3322)	83
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Further data are available for various combinations of M and L.

Pb++	oth	oth/un	25°C	0.70M	C		K1=6.20 B2= 9.96	1980SRa (3323)	84
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Recalculation of literature data with allowance for alkali and alkaline earth ion pairs. Medium: synthetic seawater, 0.70 M NaCl/NaClO4.

Pb++	vlt	KN03	25°C	0.10M	U	K1=6.1	1979BKa	(3324)	85
Pb++	ISE	KN03	25°C	0.10M	C		1977BLc	(3325)	86
							Kso(PbCO3)=-12.51		
Method: Pb ion selective electrode.									
Pb++	vlt	KN03	25°C	0.10M	U	K1=6.4	B2=9.8	1976BHa	(3326)
By differential pulse polarography, K1=6.1, B2=9.1									
Pb++	vlt	KN03	25°C	0.10M	U	K1=6.2		1975EAa	(3327)
88									
Pb++	sol	none	25°C	0.0	U T	K1=7.0	B2=9.0	1969BAc	(3328)
At 200 C: K1=10.9, B2=12.3									
Pb++	vlt	KN03	?	1.80M	U	B2=7.9		1969FFa	(3329)
							B3=9.1	90	
							K(Pb+2HL)=5.6		
							K(Pb+4HL)=5.3		
Pb++	oth	none	50°C	0.0	U T			1969HEa	(3330)
							Kso=-13.19	91	
Method: Estimated data. Temp. range 50-300 C, (cerrusite). Kso=-13.16(60C); -13.21(100 C); -13.54(150 C); -14.30(200 C); -15.31(250 C); -16.50(300 C)									
Pb++	sol	NaClO4	300°C	0.0	U TI	K1=12.21		1968BAb	(3331)
Medium: 0 corr. K1=11.89(250 C). In 1 M NaClO4, 25 C: B2=9.09									
Pb++	vlt	NaNO3	18°C	1.0M	U			1967BAf	(3332)
							K(Pb+3HL)=5.19	93	
							K(Pb(HL)2+HL)=0.42		
Pb++	vlt	oth/un	20°C	var	U			1965BBc	(3333)
							K(Pb+2HL)=4.77	94	
							K(Pb+3HL)=5.19		
Pb++	gl	none	25°C	0.0	U M			1963NMd	(3334)
							K(Pb+Cl+0.5CO2(g))=0.90	95	
							Kso(PbCl0.5)=-9.97		
I=0 corr. K: Pb+Cl+0.5CO2(g)=PbCl(CO3)0.5(s)+H. K(PbCl0.5(s)+0.5CO2(g)+0.5H2O=PbL(s)+H+Cl)=-5.82									
Pb++	gl	none	25°C	0.0	U M			1962NMf	(3335)
							Kp=-3.91	96	
							Kp'=-5.78		
I=0 corr. Kp: PbCl2(s)+0.5CO2(g)+0.5H2O=PbCl0.5(s)+H+Cl. Kp': PbCl0.5(s)+0.5CO2(g)+0.5H2O=PbL(s)+H+Cl									
Pb++	gl	none	25°C	0.0	U M			1962NMg	(3336)
							Kp=-5.85	97	
I=0 corr. Kp: PbCl(CO3)0.5(s)+0.5CO2(g)+0.5H2O=PbCO3(s)+H+Cl									

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-----
Pb++      sol KNO3   25°C 0.25M U I      1961NMc (3337) 98
                                         Ks(PbCO3(s)+2H=Pb+H2CO3)=4.08
Ks=5.06(I=2), 4.58(I=1), 3.55(I=0 corr.). Kso=-13.13(I=0 corr.)
-----
Pb++      vlt KNO3   18°C 1.70M U      B2=8.2      1959FBa (3338) 99
-----
Pb++      con none   25°C 0.0 U T      1959UGa (3339) 100
                                         Kso(PbCO3(s))=-13.24
I=0 corr. K=-13.10(30 C)
-----
Pb++      sol oth/un 18°C dil U      1935KAa (3340) 101
                                         Kso(PbCO3(s))=-11.87
From thermo. data, 25 C: Kso=-13.14, K(PbCO3(s)+CO2(g)+H2O=Pb+2HCO3)=-10.65
-----
Pb++      sol none   25°C 0.0 U      1928RSa (3341) 102
                                         Ks=-5.10
I=0 corr. Ks: Pb3(CO3)2(OH)2(s)+70H=3Pb(OH)3+2CO3
-----
Pb++      sol oth/un 18°C var U      1913APa (3342) 103
                                         Kso(PbCO3(s))=-13.0
                                         Ks=-45.46
Ks: Pb3(OH)2L2(s)=3Pb+20H+2L
-----
Pb++      sol oth/un 18°C ? U      1907PLa (3343) 104
                                         Kso(PbCO3(s))=-13.48
*****
C2N3-      HL      Dicyanamide      CAS 504-66-5 (2917)
Dicyanamide; (NC.N.CN)-
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      ISE non-aq 25°C 100% U      K1=2.0      B2=3.7      1982SSc (3472) 105
                                         B3=5.9
                                         B4=8.5
Medium: dimethylacetamide
*****
C4N3-      HL      Tricyanomethanide; (C(CN)3)-      CAS 454-50-2 (2918)
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      ISE non-aq 25°C 100% U      K1=1.8      B2=3.4      1982SSc (3479) 106
                                         B3=5.7
                                         B4=8.1
Medium: dimethylacetamide
*****
C6N6Fe----      H4L      (2191)
Hexacyanoferrate (II); Fe(II)(CN)6----
-----

```

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	KNO3	25°C	0.10M	C			1977BLc	(3596) 107
							Kso(Pb2Fe(CN)6)=-15.6		

Method: Pb ion selective electrode.

Pb++	con	oth/un	?		U			1970BEa	(3597) 108
							Kso=-15.5		

Pb++	sol	oth/un	35°C		U			1969YPa	(3598) 109
							Ks(Pb(OH)4L=Pb(OH)4+L)=-24.5		

Pb++	ISE	oth/un	25°C	0.0	U			1964RPa	(3599) 110
							Kso(Pb2L)=-18.02		

Method:amalgam electrode. Medium:0 corr

Pb++	sol	oth/un	25°C	var	U			1956TGb	(3600) 111
							Kso=-14.46		

Pb++	con	none	20°C	0.0	U			1934RIa	(3601) 112
							Kso=-16.9		

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

Chloride;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	sp	NaCl	25°C	0.0	C	I		2000FOa	(5325) 113
							B4=0.14		
							Kso(Na3Pb2(SO4)3Cl)=-19.4		

Data for0.2-5.0 m Cl-.

Pb++	vlt	oth/un	25°C	4.0M	U		K1= 1.28 B2=2.03	1992ZBa	(5326) 114
							B3=2.40		
							B4=1.57		

Medium: LiCl04-LiCl mixtures. By Square-wave Voltammetry (SWV) performed at a frequency of 100 s-1 at pH=2

Pb++	ISE	NaCl04	25°C	1.00M	U		K1=0.93 B2=1.08	1990HEa	(5327) 115
							B3=1.72		

Method: lead amalgam electrode.

Pb++	vlt	NaCl04	20°C	0.10M	C		K1=1.19	1989HSa	(5328) 116
------	-----	--------	------	-------	---	--	---------	---------	------------

Method: anodic amalgam voltammetry

Pb++	EMF	NaCl04	25°C	5.00M	U	I	K1=1.24 B2=1.96	1988FSb	(5329) 117
							B3=2.22		
							B4=2.13		

Molal equilibrium constants: K1=1.15; B2=1.78; B3=1.95; B4=1.77

Pb++ vlt NaClO4 25°C 4.0M C K1=0.95 B2= 1.96 1988PBb (5330) 118
 B3=1.99
 B4=1.43

Method: polarography. Medium pH 2.0

Pb++ vlt oth/un 25°C 56% U I K1=4.77 B2=8.77 1987BMa (5331) 119
 K3=3.60

Medium: 56% HF. In 47% HF:K1=3.57, K2=3.70, K3=4.00; 26% HF:K1=2.0, K2=2.15
 K3=2.0; 5% HF: K1=1.06, K2=1.08, K3=2.0

Pb++ ISE NaClO4 25°C 0 U I K1=1.32 B2=2.09 1987KSd (5332) 120
 B3=2.34

Pb++ oth NaCl 25°C 1.0mM U K1=1.00 B2=1.09 1985BMc (5333) 121
 B3=0.82

Calculated from data by T M Seward: Geochim.Cosmo.Acta,48,121.

Pb++ sp none 25°C 0 U I K1=1.327 B2=1.759 1984BMb (5334) 122
 B3=1.723

Values derived from data in HCl-HClO4 media, 0.01-1.0 M.

Pb++ sol NaClO4 25°C 0.0 C K1=1.61 B2= 1.67 1984LSc (5335) 123
 B3=2.62
 Kso(PbCl2)=-4.771

Medium: 0-1.0 M HCl/HClO4.

Pb++ sp NaCl 25°C var U TIH K1=1.41 B2=1.97 1984SEa (5336) 124
 B3=1.66
 B4=1.46

I=0.0012 to 3.223 M Cl-. 25-300 C. Constants at I=0.
 DH(K1)=2.5 kJ mol⁻¹; DH(K2)=12.3; DH(K3)=-17.5

Pb++ vlt NaClO4 25°C 1.0M C I K1=0.86 B2= 1.24 1983BPa (5337) 125
 B3=0.97

Method: polarography. Also data for 10-50% MeOH/H2O, 10-20% PrOH/H2O,
 10-30% i-PrOH/H2O.

Pb++ sp oth/un 25°C 1.00M U K1=0.98 B2=1.30 1982BMc (5338) 126
 B3=1.17

Medium: NaCl-NaClO4 mixtures. By potentiometry: K1=0.85, B2=1.24, B3=1.09.

Pb++ sp oth/un 25°C 1.00M U M 1982BYa (5339) 127
 B(PbClBr)=1.90
 B(PbClBr2)=2.34
 B(PbCl2Br)=1.85

Medium: mixed HCl-HBr-HClO4 solutions.

Pb++ ISE non-aq 315°C 100% U T H K1=1.9 B2=3.40 1982GGa (5340) 128
 Medium: molten KNO3-Ba(NO3)2 (87.6:12.4 mol%), Data also at 335, 355 C

Pb++ oth NaCl 23°C 0.70M U K1=0.999 B2=1.037 1982ROa (5341) 129
B3=1.250

Pb++ ISE non-aq 25°C 100% U K1=5.4 B2=9.5 1982SSc (5342) 130
B3=13.2
B4=15.3

Medium: dimethylacetamide

Pb++ sp oth/un 25°C 1.00M U I K1=0.91 B2=1.21 1981BWa (5343) 131
B3=1.16

Medium: mixed HCl-HClO4 solutions. In 0.33 M MgCl2 + 0.01 M HCl, K1=0.84,
B2=1.06, B3=0.92.

Pb++ vlt NaClO4 20°C 2.22M U K1=1.09 B2=1.02 1981TCa (5344) 132
B3=1.59

Using convolution voltammetry

Pb++ vlt NaClO4 25°C 1.00M U K1=0.83 B2=1.19 1980LBb (5345) 133
B3=0.86

Alternative methods: Neopolarography and Anodic stripping voltammetry.

Pb++ EMF oth/un 25°C 0.0 C TIH K1=1.59 1980PPc (5346) 134
Method: Ag/AgCl, Cl- electrode. Extrapolated from data for 0.014-03 M
(PbCl2+HCl). Data for 5-40 C. DH(K1)=8.79 kJ mol-1, DS(K1)=-59.9

Pb++ oth oth/un 25°C 0.70M C K1=1.01 B2= 1.50 1980SRa (5347) 135
Recalculation of literature data with allowance for alkali and alkaline
earth ion pairs. Medium: synthetic seawater, 0.70 M NaCl/NaClO4.

Pb++ vlt KNO3 25°C 0.10M U K1=1.4 1979BKa (5348) 136

Pb++ ISE oth/un 65°C var U TI K1=1.86 B2=3.42 1979ZMa (5349) 137
Medium: Ca(NO3)2.aNH4NO3.xH2O. Data quoted applies when a= 1.5 and x= 8.96.
Further data available for 50 to 65 C and for various a and x values

Pb++ ISE diox/w 25°C 50% U I K1=1.23 B2=1.86 1978FDb (5350) 138
B3=2.04

Pb++ ISE KNO3 25°C 0.10M C K1=0.82 1977BLc (5351) 139
Kso(PbCl2)=-3.58

Method: Pb and Ag/AgCl ion selective electrodes.

Pb++ ISE diox/w 25°C 30% U I K1=1.48 B2=1.56 1976DFa (5352) 140
B3=2.30

Pb(Hg)-electrode; Medium: 30% w/w dioxan/H2O, LiClO4

Pb++ sol NaClO4 25°C 1.00M U I K1=1.00 1976FSa (5353) 141

Pb++ ISE oth/un 25°C 3.00M U I K1=1.28 B2=1.87 1975FGa (5354) 142
B3=2.01

B4=1.89

Data also for MeOH/H2O

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

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

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

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

Pb++ ISE non-aq 25°C 100% U K1=4.11 B2=8.5 1973SLb (5359) 147
B3=10.0
B4=11.30

Medium: DMSO, 1 M LiClO4. Using least squares: B3=9.88, B4=11.36. Pb amalgam electrode

Pb++ sp NaClO4 25°C 4.0M U I 1973VIa (5360) 148
K1=1.277+0.002C
B2=1.574+0.001C
B3=2.286-0.036C
B4=1.433+0.096C

Kso=-3.329+0.079C; C=total concentration of chloride. PbHg electrode also

Pb++ EMF NaClO4 25°C 2.0M U I K1=1.04 B2=1.40 1972FSd (5361) 149
B3=1.40
B4=0.85

Medium: LiClO4. K1=1.48,B2=2.08,B3=1.81,B4=0.9(I=0); K1=0.90,B2=1.30(I=0.5);
K1=1.34,B2=2.10,B3=2.40,B4=1.90(I=4)

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

Pb++ ISE NaClO4 25°C 1.0M U I M 1972FSe (5363) 151
B(PbBrL)=1.89
B(PbBrL2)=1.77
B(PbBr2Cl)=2.11
B(PbBr3L)=2.00

Medium: LiClO4, PbHg electrode. Many related interhalogen equilibria at I=0 to I=4

Pb++ EMF oth/un 25°C 1.00M U K1=0.85 B2=1.26 1972FSf (5364) 152
B3=1.20

Medium: LiCl-LiClO4 mixtures.

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

Medium: $\text{NH}_4\text{NO}_3(\text{H}_2\text{O})_2$. $K_1=1.86, K_2=1.58(55^\circ\text{C})$; $K_1=1.85, K_2=1.53(70^\circ\text{C})$

Data also at different solvation numbers(0 to 3). $\text{DH}(K_1)=-10.5 \text{ kJ mol}^{-1}(n=0)$

Pb++	ISE none	25°C	0.0	U	$K_1=1.5$ $B_3=2.7$	$B_2=1.9$	1972SFa (5366)	154
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Pb++	vlt NaCl04	25°C	1.0M	U	$K_1=1.18$ $B_3=1.90$	$B_2=1.18$	1971BHb (5367)	155
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Pb++	ISE NaCl04	25°C	4.0M	U	$K_1=1.19$ $B_3=2.03$ $B_4=1.82$	$B_2=1.86$	1971VIA (5368)	156
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Method: Pb amalgam electrode. Using spect.: $K_1=1.13, B_2=1.90, B_3=2.08, B_4=1.85$

Pb++	sol NaCl04	25°C	3.0M	U	$K_1=1.20$	1970FSb (5369)	157
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Medium: LiCl04

Pb++	ISE non-aq	250°C	100%	U	$K_1=2.60$ $K_3=1.48$ $K_4=1.15$	$B_2=4.68$	1969GSe (5370)	158
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Medium: molten (Na,K)NO3

Pb++	oth none	50°C	0.0	U T	$K_1=1.63$ $B_3=1.81$ $B_4=1.59$	$B_2=1.85$	1969HEa (5371)	159
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Evaluated from literature data. At 100 C: $K_1=1.73, B_2=2.04, B_3=2.13, B_4=2.05$;
At 150 C: $K_1=1.88, B_2=2.29, B_3=2.50, B_4=2.57$

Pb++	vlt non-aq	145°C	100%	U	$K_1=1.32$	$B_2=2.36$	1968ILa (5372)	160
------	------------	-------	------	---	------------	------------	----------------	-----

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

Pb++	oth oth/un	23°C	var	U	$K_2=0$ $K_3=0$	1968SCc (5373)	161
------	------------	------	-----	---	--------------------	----------------	-----

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

Pb++	sol oth/un	35°C	dil	U	$K_s(\text{PbOHCl})=-6.12$	1968YPa (5374)	162
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Pb++	ISE NaCl04	25°C	4.0M	U I	$K_1=1.24$ $B_3=2.14$ $B_4=1.39$	$B_2=1.73$	1966VSA (5375)	163
------	------------	------	------	-----	--	------------	----------------	-----

Method:amalgam electrode. At I=3: $K_1=1.05, B_2=1.51, B_3=1.83$

Pb++	vlt NaCl04	25°C	1.0M	U	$B_4/B_2=0.15?$	1965HPa (5376)	164
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Pb++	sp NaCl04	25°C	4.0M	U	$K_1=1.0$ $K(\text{PbCl}_2(s)=\text{PbCl}_2)=-3.33$ $K_3 < -0.4$ $B_4/B_2=0.15$	$B_2=2.47$	1965HPa (5377)	165
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B6/B4=-1.7

Also solubility. Medium: HClO₄

Pb++ ISE NaClO₄ 25°C 3.0M U I M K1=1.18 B2=1.72 1965MKb (5378) 166
B3=2.00
B4=1.04

Method:amalgam electrode. In With 3 M LiCl:K(Na+PbCl₄)=-0.14, 0.31(K+),
0.42(Rb+),0.50(Cs+); K(Na+PbCl₃)=-1.0, -0.3(K+), -0.2(Rb+), -0.1(Cs+)

Pb++ ISE NaClO₄ 25°C 3.0M U M K1=1.19 B2=1.73 1965MKc (5379) 167
B3=2.03
B4=0.85
K(Na+PbCl₄)=-0.85

Method:amalgam electrode. Medium:3 LiClO₄,1 HClO₄. K(K+PbL₄)=-0.64,
0.0(Cs+), -0.05(NH₄+), 0.85(H+PbCl₄)

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

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

Pb++ ISE oth/un 25°C 2.50M U 1964BMc (5382) 170
B3=2.81

Method:amalgam electrode. Medium:Ca(ClO₄)₂

Pb++ ISE NaClO₄ 25°C 3.0M U M 1964MKb (5383) 171
K' -0.33
K''=-1.05 or -0.7 ?

Method:amalgam electrode. K': Li₂PbL₄+Na=LiNaPbL₄+Li. K'': Li₂PbL₄+2Na

Pb++ ISE NaClO₄ 25°C 3.0M U H K1=1.16 B2=1.81 1964MKd (5384) 172
B3=1.91
B4=1.2

Method: Pb/Hg electrode. DH(K1)=3.6 kJ mol⁻¹,DH(B2)=7.9,DH(B3)=10.9,DH(B4)=0
DS(K1)=34.3 J K⁻¹ mol⁻¹,DS(B2)=62.7,DS(B3)=75.2,DS(B4)=66.9

Pb++ sol NaClO₄ 25°C 3.0M U K1=1.23 B2=1.87 1964MKf (5385) 173
B3=1.98
B4=1.72
K(Na+PbCl₄)=-0.28

Medium: LiClO₄. By amalgam electrode:Kso=-5.0

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

Pb++ dis non-aq 480°C 100% U K1=0.41 B2=1.7 1963KEb (5387) 175
Medium: liquid KNO₃. Kd(PbCl₂(in KNO₃)=PbCl₂(in AgCl))=0.14. m units

Pb++ ISE NaNO₃ 25°C 3.0M U I K1=0.31 B2=0.34 1963MFa (5388) 176

B3=-0.2

Method:amalgam electrode. In 3 M LiNO₃: K1=0.32, B2=0.10, B3=-0.28

In 3 M KNO₃:K1=0.46, B2=0.58, B3=-0.1,B4=0 plus other backgrounds

Pb++ ISE oth/un 25°C 3.0M U 1963MFe (5389) 177

K(NH₄+PbCl₄)=0.48

K(2NH₄+PbCl₄)=-0.33

Pb++ ISE NaClO₄ 25°C 4.0M U 1963MIId (5390) 178

K(Na+PbCl₄)=-0.05

K(K+PbCl₄)=0.45

K(Rb+PbCl₄)=0.57

K(Cs+PbCl₄)=0.66

Pb++ ISE NaClO₄ 25°C 3.0M U I K1=1.16 B2=1.7 1963MKc (5391) 179

B3=1.97

B4=0.7

Method:amalgam electrode. When I=1:K1=0.90, B2=1.36, B3=1.45

also data for I=4,2,0.75,0.5,0.25 and NaNO₃: K1=0.43,B3=0.5,B3=-0.3 at I=4

Pb++ sol non-aq 250°C 100% U T K1=1.21 1963RSc (5392) 180

Medium: liquid (Na/K)NO₃. K1=1.21(275 C), 1.12(300 C). m units.

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

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

Method: freezing point

Pb++ sol non-aq 275°C 100% U T K1=1.20 1962SIc (5395) 183

Medium: liquid (Na/K)NO₃. K1=1.04(300 C), 0.85(325 C). m units

Pb++ sol non-aq 275°C 100% U K1=1.04 B2=1.64 1962VOa (5396) 184

K3=0.7

Ks(PbCrO₄(s)=Pb+CrO₄)=-6.79

Medium: liquid (Na/K)NO₃. m units

Pb++ ISE NaClO₄ 25°C 4.0M U I K1=1.23 B2=1.76 1961MIb (5397) 185

B3=2.15

B4=1.58

B5=1.3

Method: Pb/Hg electrode. In LiClO₄: K1=1.23, B2=1.72, B3=2.08, B4=1.34,

B5=0.6. CsClO₄: 1.30, 1.88, 2.43, 2.30, 1.7, B6=2.0. Plus other media

Pb++ vlt non-aq 180°C 100% U K1=1.62 B2=2.10 1960C0d (5398) 186

Medium: liquid (Li/K)NO₃

Pb++ vlt non-aq 180°C 100% U K1=2.43 1960C0d (5399) 187

Medium: liquid (Li/K)NO₃, x units.

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

B3=1.95

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Pb++	vlt oth/un 25°C	1.0M U I	K1=1.43	B2=2.26	1955PCa	(5416)	204
			K3=-0.18				
			K4=0.07				
			B6=2.10				

In 1 M KCl: $K_1=0.88$, $K_2=0.61$, $K_3=-0.40$, $K_4=-0.15$, $B_6=0.46$

Pb++	ix	none	25°C	0.0	U	K1=1.60	B2=1.78	1954Nka	(5417)	205
						K3=-0.1				
						K4=-0.3				

Pb++	sol none	0°C	0.0	U	1951DCa	(5418)	206
					Kso(PbCl(OH))=-13.7		
					Kso(PbCl0.5(OH)1.5)=-17		

Pb++ vlt oth/un 25°C var U K1=1.64 B2=1.28 1951VPa (5419) 207
K3=0.57

Pb++	sol oth/un	18°C	var	U	K1=1.05	1950CAa	(5420)	208
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Pb++ vlt oth/un 25°C var U 1950KKb (5421) 209

B3=1.70
K4=-0.10

Pb++	oth none	25°C	0.0	U	K1=1.54	1949GGa	(5422)	210
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Pb++	sol	none	25°C	0.0	U	I	K1=1.64	1949JAc	(5423)	211
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Pb++	oth none	25°C	0.0	U	K1=1.58	1947NGa	(5424)	212
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Pb++	sol	none	25°C	0.0	U	K1=1.75	1945NAa	(5425)	213
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[illegible]

Pb++ sol none 25°C 0.0 U B3=1.4 1942GNa (5427) 215

Pb++	ISE none	25°C	0.0	U	K1=1.42	1938GUa	(5428)	216
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Pb++ sp none 22°C 0.0 U K1=1.11 1931FLa (5429) 217
I=0 corr. By Pb electrode Kso(PgL2(s))=-4.67

Pb++	oth none	18°C	0.0	U	K1=1.52	1930RDa	(5430)	218
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Pb++	sol oth/un	18°C	var	U	K1=1.5	B2=2.1	1910BSa	(5431)	219
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Pb++	sol oth/un	25°C	var	U	K1=1.20	1901ENa	(5432)	220
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B3=1.38

B4=1.1

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

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

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

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

B3=8.3

Medium: CH2Cl2

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	KN03	25°C	0.10M	C			1977BLc (6502)	224

Kso(PbCrO4)=-12.35

Method: Pb ion selective electrode.

Pb++	kin	non-aq	300°C	100%	U			1958DIb (6503)	225
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K(Pb+Cr2O7)=1.65

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

Pb++	kin	oth/un	300°C	100%	U			1958DIb (6504)	226
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K(Pb+Cr2O7)=1.65

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

Pb++	gl	none	17°C	0.0	U			1956CHa (6505)	227
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Ks(Pb(L)0.5(OH))=-15.87

Pb++	sol	oth/un	25°C	dil	U			1942KPa (6506)	228
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Kso=-12.55

Pb++	sol	oth/un	18°C	var	U			1911BEa (6507)	229
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Kso=-13.75

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

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

Pb++ vlt NaClO4 25°C 2.0M U K1=1.26 B2=2.55 1963MHb (7097) 246
Kso(PbF2)=-6.60

Pb++ ISE KN03 25°C 1.0M U 1961SRa (7098) 247
Kso(PbF2)=-6.26

Pb++ sol none 25°C 0.0 U M 1961TPa (7099) 248
Kso(PbFI(s))=-8.07

Pb++ sol none 25°C 0.0 U T 1961TPb (7100) 249
 $K_{so}(PbFCl(s)) = -8.62$
 $K_{so} = -9.17(0\text{ }^{\circ}\text{C}), -7.99(50\text{ }^{\circ}\text{C}), -7.62(75\text{ }^{\circ}\text{C}), -7.24(100\text{ }^{\circ}\text{C})$

Pb++ sol none 25°C 0.0 U M 1961TPc (7101) 250
K(PbBrF(s)=PbBr+F)=-5.65

Pb++ con NaClO4 25°C 0.50M U I K1=<0.3 1958CPa (7102) 251
K(Pb+HF=PbF+H) < -2.7
At I=0 corr. K1 < 0.78

Pb++ vlt none 25°C 0.0 U B2=2.27 1956TKa (7103) 252
B3=3.42
B4=3.1

Pb++ EMF NaCl04 25°C 0.50M U I K1=<0.3 1955PAa (7104) 253
At I=0 corr K1 < 0.8

Pb++ ISE none 25°C 0.0 U K_{so}(PbF₂)=-7.57 1941IVa (7105) 254

Pb++ con none 18°C 0.0 U T 1923B0a (7106) 255
Kso=-7.57(9 C), -7.43(26.6 C) Kso(PbF2)=-7.49

FCIBrI HL (541)
Halides, comparative (for book data under ligand 80)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	EMF	NaClO4	25°C	5.0M	U	M	1960FSb	(7411)	256
							B(PbCl3Br)=2.46		
							B(PbCl2Br2)=3.03		
							B(PbClBr3)=3.20		
							B(PbBr3I)=3.80		

Method: Pb/Hg electrode. $B(\text{PbBr}_2\text{I}_2)=4.48$, $B(\text{PbBrI}_3)=5.15$, $B(\text{PbClI}_3)=1.95$, $B(\text{PbBr}_4)=2.85$, $B(\text{PbI}_4)=5.32$

H2O	L	Water	CAS 7732-18-5 (6115)
Water			

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

Medium: Me2CO

Pb++	vlt	alc/w	25°C	100%	U I		K1=-0.08 B2=0.24	1961MGa	(7609) 258
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Medium: MeOH, 0.05 M NH4ClO4. K3=-0.34 (0.1 M NH4NClO4)

Pb++	vlt	alc/w	25°C	100%	U		K2=-1.42 K3=-1.64 K4=-1.66 K5=-1.70	1958VAa	(7610) 259
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Medium: EtOH, 0.1 M KNO3

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

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

Method: lead amalgam electrode.

Pb++	ISE	non-aq	295°C	100%	U T H		K1=3.57 B2=6.74	1982GGa	(8275) 261
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Medium: molten KNO3-Ba(NO3)2 (87.6:12.4 mol%). Data also at 315, 335 C

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

Pb++	sol	NaClO4	25°C	0.1M	U H		Ks=-24.60	1977HMc	(8278) 264
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Pb++	sol	NaClO4	25°C	1.00M	U I		K1=1.63 B(Pb2I)=1.70	1976FSa	(8279) 265
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Pb++	ISE	non-aq	25°C	100%	U		K1=2.62 B2=3.95 B3=4.28	1973SLb	(8280) 266
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Medium: DMSO, 1 M (Li,Na)ClO4

Pb++	sol	NaClO4	5°C	3.0M	U H		K1=2.34 B2=3.74	1972FSc	(8281) 267
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B6=5.90

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

Pb++ sol NaClO4 25°C 3.0M U T 1972FSc (8282) 268

$$K_{so}(\text{PbI}_2(s)) = -8.50$$

Medium: LiClO₄; K_{so}=-9.33(5 °C), -8.95(15 °C), -8.25(35 °C)

Pb++ EMF NaCl04 25°C 0.50M U I K1=1.34 B2=2.34 1972FSd (8283) 269

B3=3.15

B4=3.20

B5=4.04

Medium: LiClO₄. K1=1.50, B2=2.48, B3=3.18, B4=3.88, B5=4.48(I=1); K1=1.58, B2=3.00, B3=3.85, B4=4.34, B5=4.64(I=2). Also I=3, I=4

Pb++	EMF oth/un	25°C	3.0M U	I	K1=1.65	B2=3.00	1972FSd	(8284)	270
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B3=4.43

B4=5.08

B5=5.2

Medium: LiClO4. K1=1.90, B2=3.78, B3=4.85, B4=5.30, B5=5.95(I=4); K1=1.98, B2=3.15, B3=3.81, B4=3.75, B5=3.81(I=0 corr)

Pb++ ISE NaCl04 25°C 1.0M U I M 1972FSd (8285) 271

$$B(\text{PbClL})=2.15$$
$$B(\text{PbCl}_2\text{L}) = 2.56$$
$$B(\text{PbCl}_2) = 3.28$$
$$B(PbCl_3L) = 2.12$$

Medium: LiClO₄; PbHg electrode. Data for many other interhalogen complexes, I=0 to I=4

Pb++ vlt NaCl04 25°C 1.0M U K1=4.0 B2=7.3 1971BHb (8286) 272

Pb++ sol NaCl04 25°C 3.0M U K1=1.69 1970FSb (8287) 273

$$B(\text{Pb}_2\text{I}) = 1.95$$

Medium: LiClO4

Pb++ EMF non-aq 25°C 100% U K1=2.70 B2=4.85 1970SZa (8288) 274

B3=7.0

B4=8.6

Medium: DMF, 1 M LiClO₄

Pb++ vlt oth/un 25°C var U 1969FTa (8289) 275

$$K_{so}(\text{PbI}_2(s)) = -7.89$$

medium: NaI

Pb++ dis NaNO3 30°C 0.10M U K1=7.3 1965SMg (8290) 276

$$K_d(\text{Ph}_3\text{PbOH}(\text{CHCl}_3)+\text{I}) = -0.6$$

Kd(Ph3PbOH(MIBK)+I)=-0.1

Pb++ ISE alc/w 20°C 100% U I 1961GGc (8291) 277

B5=8.47

B6=8.20

B7=7.89

Medium: MeOH, 3 M NaClO4. Method: Pb/Hg electrode(Pb). In Me2CO, 1.3 M NaClO4
B3=15.77, B4=16.27, B5=16.51, B6= ca.17

Pb++ EMF NaClO4 25°C 5.0M U 1960FSb (8292) 278

B4=5.32

Method: Pb/Hg electrode

Pb++ vlt non-aq ? 100% U 1960HSd (8293) 279

B4=4.30

Medium: HCONH2, 1 M NaClO4 ?

Pb++ sol NaClO4 25°C 2.0M U K1=1.30 B2=2.38 1960HYa (8294) 280

B3=3.14

B4=4.43

Kso(PbL2)=-7.605

Pb++ sol none 25°C 0.0 U T H 1960NMa (8295) 281

K(PbL2(s)+OH=PbOHL+L)=7.23

I=0 corr. K=7.43(10 C), 7.09(40 C), 7.01(50 C), 6.88(60 C). DH(K)=-19.1 kJ
mol-1, DS=74.5 J K-1 mol-1; DH(Pb(OH)I(s)=Pb+OH+I)=84.0, DS=-12

Pb++ sol oth/un 22°C dil U T 1959DUa (8296) 282

Kso(PbL2)=-7.89

Kso=-8.01(18 C)

Pb++ sol oth/un 25°C var U 1959KBb (8297) 283

Kso(PbL2)=-8.97

K(PbL2(s)+L=PbL3)=-3.3

K(PbL2(s)+2L=PbL4)=-2.74

B3=5.7

Medium KI. B4=6.23

Pb++ sol oth/un 25°C dil U 1959NMa (8298) 284

K(PbL2(s)+OH=PbLOH+L)=7.13

K(Pb(OH)L(s)=Pb+OH+L)=-15.2

Pb++ vlt NaClO4 25°C 1.0M U K1=1.26 B2=2.80 1956KEa (8299) 285

K3=0.62

K4=0.50

Pb++ sp none 25°C 0.0 U K1=1.92 1955BPa (8300) 286

Pb++ sp none 18°C 0.0 U I K1=1.92 1955PPa (8301) 287

I=0 corr. Also in MeOH/H2O mixtures

Pb++	cal	oth/un	25°C	var	U	H	1954YSa	(8302)	288
DH(K1)=-4.2 kJ mol-1. DS=29 J K-1 mol-1									
Pb++	sol	oth/un	25°C	var	U	K1=2.30 B(Pb2L)=1.67	1953YSa	(8303)	289
Medium Pb(NO3)2. From thermodynamic data, I=0 corr. Kso(PbL2)=-8.98									
Pb++	cal	oth/un	?	var	U	H	1952YAA	(8304)	290
DH(B4)=-65.3 kJ mol-1, DS=-96.2 J K-1 mol-1									
Pb++	ISE	oth/un	25°C	var	U	T H	1949KOb	(8305)	291
B4=6.20 Method: Pb electrode. Medium KI. B4=6.80(0 C), 5.64(30 C), 4.70(35 C). DH(B4)=-250 kJ mol-1									
Pb++	vlt	oth/un	17°C	var	U		1946MSa	(8306)	292
B4=7									
Pb++	sol	none	25°C	0.0	U	H	1945NAb	(8307)	293
I=0 corr. DH(so(PbL2))=59.0 kJ mol-1.									
Pb++	EMF	none	25°C	0.0	U	T H	1945NAb	(8308)	294
Kso(PbL2)=-8.15 Method: Ag electrode, I=0 corr. Kso=-9.02(0 C), -7.52(45 C), -7.09(60 C). DH(so)=60.7 kJ mol-1									
Pb++	sol	none	25°C	0.0	U	K1=2.1 Kso(PbL2)=-8.19	1944NAa	(8309)	295
Pb++	sol	none	25°C	0.0	U		1941LKa	(8310)	296
K(PbL2(s)=PbL2)=-4.47 K(PbL2(s)+L=PbL3)=-4.65 K(PbL2(s)+2L=PbL4)=-3.85 K3=-0.18 I=0 corr. K4=0.80									
Pb++	sol	none	25°C	0.0	U	K1=2.0 B2=3.15 B3=3.92 B4=4.47 Kso(PbL2)=-8.06	1941LKa	(8311)	297
Pb++	sol	oth/un	20°C	var	U	B3=5.44	1940GOa	(8312)	298
Pb++	sp	none	22°C	0.0	U	K1=1.46	1931FLa	(8313)	299
I=0 corr. At 25 C, by Pb electrode Kso(PbL2)=-8.01									
Pb++	sol	none	25°C	0.0	U	T	1923BOa	(8314)	300
Kso(PbL2)=-7.86									

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

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

I03- HL Iodate CAS 7782-68-5 (1257)
Iodate;

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

Pb++ ISE KNO3 25°C 0.10M C 1977BLc (8543) 302
Kso(Pb(I03)2)=-12.68

Method: Pb ion selective electrode.

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

Pb++ con none 18°C 0.0 U T 1923B0a (8545) 304
Kso(PbL2)=-12.92

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

Pb++ con oth/un 20°C dil U 1903B0b (8546) 305
Kso(PbL2)=-12.86

Mn04- HL Permanganate CAS 13456-41-3 (5678)
Manganate(VII), Permanganate;

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

Pb++ gl none 17°C 0.0 U 1956CHa (8635) 306
Ks(Pb(L)0.5(OH)1.5)=-18.9

Mo04-- H2L Molybdate (443)
Molybdate;

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

Pb++ ISE none 25°C 0.0 C 1977CCa (8749) 307
Kso(PbMo04)=-12.92

Method: Pb ion selective electrode. Medium pH 6.0.

Data extrapolated to I=0.0 M.

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

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

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

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

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

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

 Pb++ gl R4N.X 25°C 5.00M U K1=1.55 1985MMA (9191) 311

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

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

 Pb++ vlt oth/un 25°C 1.0M U I K1=0.23 B2=0.13 1968STc (9270) 312
 K3=0.60

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

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

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

 Pb++ sol NaNO3 20°C 1.40M U K1=2.54 B2=3.17 1971GFb (9393) 313
 B3=2.78

 Pb++ sp NaClO4 25°C 1.0M U I K1=1.86 1971TLA (9394) 314
 K1=1.87(I=0.7), 1.91(I=2.0), 2.51(I=0 corr)

 Pb++ vlt NaClO4 30°C 1.0M U K1=1.93 B2=2.36 1967JGa (9395) 315
 B3=2.13

 Pb++ sol oth/un 20°C var U 1966GAd (9396) 316
 Ks(Pb(SCN)2(s)+L)=-0.7
 Ks(PbCl2(s)+L)=-0.5
 Ks(PbBr2(s)+L)=-0.8

 Pb++ ISE alc/w 20°C 50% U I K1=2.40 B2=3.57 1965GAc (9397) 317
 B3=3.80

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

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

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

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

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

Pb++ ISE NaClO4 30°C 2.0M U K1=2.85 1959VKa (9400) 320

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

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

Pb++ nmr oth/un 22°C var C T H K1=0.70 2000AGa (9834) 321
 Self medium, 0.05-0.25 m Pb(NO3)2. Also data for 37-77 C.
 DH(K1)=12.6 kJ mo-1, DS(K1)=49 J K-1 mol-1. Method: 207Pb nmr

Pb++ vlt NaClO4 25°C 0.05M C I K1=0.43 B2= 0.32 1987RRb (9835) 322
 Method: polarography. Data for 0.3-5.0 M NaClO4. At I=5.0 M,
 K1=0.28, B2=0.079, B3=0.11.

Pb++ vlt NaClO4 25°C 1.0M C M K1=0.32 B2= 0.32 1985RRg (9836) 323
 B(Cd(SCN)NO3)=0.90
 Method: polarography.

Pb++ nmr oth/un 25°C var C K1=0.091 1983HHb (9837) 324
 Method: 207Pb nmr. K1 value valid for 0.01-1.0 M Pb(NO3)2 solution.

Pb++ kin NaClO4 25°C 0.10M U I K1=0.90 1973HHb (9838) 325
 K1=0.62(I=1)

Pb++ ISE NaClO4 25°C 3.0M U TI K1=0.52 B2=0.45 1972FRa (9839) 326
 B3=0.26
 B4=-0.3
 Method:Pb/Hg electrode. Medium:LiClO4. K1=1.11,B2=1.40(I=0). K1=0.53,B2=0.43
 (I=0.5). K1=0.40,B2=0.23,B3=-0.05(I=2). Temp. range: 2 to 65 C

Pb++ vlt oth/un 25°C 3.0M U H K1=0.53 B2=0.48 1972FRa (9840) 327
 B3=0.30
 B4=0.11
 Medium:LiClO4. By spec.K1=0.57,B2=0.48.By sol.K1=0.46,B2=0.30,B3=0.2,B4=-0.5
 Also DH, DS data

Pb++ ISE alc/w 25°C 24.7M U TI K1=1.49 B2=2.37 1971GFc (9841) 328
 B3=2.62
 B4=2.70
 B5=2.42
 B6=2.15
 Method: Pb/Hg. Medium: MeOH/H2O, C mols MeOH. When C=6: K1=0.72, B2=0.83,
 B3=0.65,B4=0.18. Data also 5 C, 15 C, 35 C, 45 C and 55 C

Pb++ ISE alc/w 25°C 12.0M U TI K1=1.23 B2=1.86 1971GFc (9842) 329
 B3=2.18
 B4=1.70
 B5=1.70

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

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

Pb++ ISE NaClO₄ 2°C 3.0M U T K₁=0.56 B₂=0.53 1967FRb (9844) 331
B₃=0.30
B₄=-0.2

Method: Pb/Hg electrode. Medium: LiClO₄. K₁=0.51(25 C), 0.42(43.5 C), 0.36(65C);
B₂=0.32(25C), 0.30(43.5C), 0.23(65C); B₃=0.32(25C), 0.18(43.5C), 0.15(65C)

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

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

Medium: Me₂SO₂

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

Pb++ vlt NaClO₄ 25°C 2.0M U K₁=0.3 B₂=0.4 1965HUa (9848) 335
B₃ < -2.3

By amalgam electrode: K₁=0.15, B₂=0.39

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

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

Pb++ EMF NaClO₄ 25°C 4.0M U 1963MId (9851) 338
B₄=-0.60

K(Na+PbL₄)=-0.33
Medium: LiClO₄. Method: Pb/Hg electrode. K(Na+PbL₄)=-0.33, K(K+PbL₄)=0.15

Pb++ ISE NaClO₄ 25°C 3.0M U I K₁=0.5 B₂=0.0 1963MKc (9852) 339
B₃=-0.3
B₄=-0.2

Method: amalgam electrode. I=1.0: K₁=0.34, B₂=0.56. Also I=4, 2, 0.75

Pb++ EMF NaClO₄ 25°C 3.0M U K₁=0.48 B₂=0.52 1963MKd (9853) 340
B₃=0.08
B₄=-0.64

Method: Pb/Hg electrode. Medium: LiClO₄. K(Na+PbL₄)=0.01 K(2Na+PbL₄)=-0.89,
K(K+PbL₄)=0.42, K(2K+PbL₄)=-0.82, K(3K+PbL₄)=-0.74, K(NH₄+PbL₄)=0.32 etc.

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

Method: Pb/Hg elctrode. Medium: MeOH

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

$$K_s(\text{PbL}_2(\text{s}) + 0.5\text{H}_2\text{O} = 0.5\text{Pb}_2\text{OL}_2(\text{s}) + \text{HL}) = -3.46$$
$$K_{so}(PbL_2(s)) = -8.59$$

$$\text{OH-Hydroxide; HL-Hydroxide} \quad (57)$$

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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*K1=-7.2

*B2=-16.1

*B3=-26.5

*B4=-38.0

In 5.0 M NaClO₄, *K1=-7.2, *B2=-16.2, *B3=-26.7 and *B4=-38.7.

*K1=-7.76

*B2=-16.5

*B3=-25.9

$$*B(2,1) = -6.3$$

$*B(3,4)=-23.7, \quad *B(4,4)=-20.26, \quad *B(6,8)=-43.2.$

*K1=-6.05

$$*B(4,4)=-15.94$$

Method: potentiometry plus coulometry. Medium: 3 M LiClO₄.

$$B(PbL3)=13.46$$
$$K1=7.75$$

*K1=-7.80

$$*B(3,4)=-22.69$$
$$*B(3,5) = -30.8$$
$$*B(4,4) = -19.58$$

*B(6,8)=-42.43. By calorimetry: DH(*K1)=24 kJ mol⁻¹, DH(*B(3,4))=112,

$$DH(*B(3,5))=146, \quad DH(*B(4,4))=86, \quad DH(*B(6,8))=215.$$

*K1=-7.94

$$*B(3,4) = -22.83$$
$$*B(4,4)=-19.01$$
$$*B(6,8) = -41.55$$

Pb++ sol NaNO3 22°C 1.00M U M 1989NSa (11857) 367

B(Pb(OH)(NO3))=10.23

Pb++ sol NaCl 22°C 1.00M U 1989NSa (11858) 368
B(Pb(OH)Cl)=11.28

Pb++ EMF NaClO4 25°C 5.00M C 1989SFb (11859) 369

B3=14.07

B4=13.62

B6=12.72

Molal formation constants: B3=13.8, B4=13.26, B6=12.18

Pb++ sp NaClO4 25°C 0.50M U M 1988STa (11860) 370

K(PbA+L)=4.26

A=1,10-Diaza-4,7,13,16,21,24-hexaoxabicyclo[8,8,8]hexacosane (Cryptand 222)

Pb++ gl KNO3 25°C 0.30M C K1=6.2 B2=10.3 1987AZa (11861) 371
B3=13.3

Pb++ oth none 0°C 0.0 U 1987BSb (11862) 372
B(Pb4(OH)4)=34.97

Calculated values

Pb++ ISE NaClO4 25°C 3.00M C 1987FGb (11863) 373
B3=13.3

Pb++ gl NaNO3 25°C 5.00M U K1=6.05 1985MMA (11864) 374

Pb++ vlt NaClO4 25°C 0.70M C 1983TVa (11865) 375
*K1=-7.48
*B2=-16.98

Methods: DC, NP and DP polarography.

Pb++ vlt NaClO4 25°C 3.0M U K1=6.87 B2=10.60 1983YYa (11866) 376
B3=12.80
B4=14.95

Method: polarography.

Pb++ cal NaClO4 25°C 3.0M C IH 1981IOa (11867) 377
In LiClO4. DH(*B(3,3))=66.6 kJ mol⁻¹, DS=-20.7; DH(*B(4,4))=81.4, DS=-29.5
DH(*B(3,4))=61.6, DS=-68.4; DH(*B(6,8))=242.8, DS=1.3.Dioxane/H2O mixtures

Pb++ gl NaClO4 25°C 3.00M U I 1981KOa (11868) 378
*B(3,4)=-23.03
*B(4,4)=-18.90
*B(6,8)=-41.68
In D2O: *B(4,3)=-23.89; *B(4,4)=-20.31; *B(8,6)=-44.27

Pb++ gl NaClO4 25°C 3.00M U I 1980KIa (11869) 379
*B(3,3)=-15.29
*B(4,4)=-19.42

*B(3,4)=-22.78

*B(6,8)=-42.33

Also in 0.1 and 0.2 mol fractions dioxan/water

Pb++ gl KNO3 25°C 0.10M U 1980SBa (11870) 380

*K1=-7.86, *B(3,4)=-23.91

*B(3,5)=-31.75

*B(4,4)=-20.40

*B(6,8)=-43.38

Pb++ oth oth/un 25°C 0.70M C K1=6.90 B2=10.80 1980SRa (11871) 381

Recalculation of literature data with allowance for alkali and alkaline earth ion pairs. Medium: synthetic seawater, 0.70 M NaCl/NaClO4.

Pb++ gl KNO3 25°C 0.10M U M 1979GMa (11872) 382

*K(Pb(EDDA))=-11.02

Pb++ ISE KNO3 25°C 0.10M C K1=6.77 B2=12.05 1977BLb (11873) 383

Kso(Pb(OH)2)=-18.77

Method: Pb ion selective electrode.

Pb++ sol oth/un 100°C ? U T M 1975TKa (11874) 384

*Ks(PbO(s)+H2O)=-3.54

*Ks(PbO(s)+H2O+OH)=-0.9

100-300 C. Also hydrolysis of PbTiO3

Pb++ oth NaClO4 20°C 0.50M U 1973PPb (11875) 385

*Kso(M(OH)2(s)+2H=M+2H2O)=9.10

Methods: electrical migration or transference number, Tyndallometry, nephelometry, and chromatography

Pb++ oth none 25°C 0.0 U 1970PPc (11876) 386

*K1=-7.9, *B2=-16.2

*K3=-11.5, *K4=-13.1

Kso(Pb(OH)2)=-16.1

K(Pb(IV)O2+H)=13.2

Method: Estimated data. K(PbOH+H2O=HPb(IV)O2+2H)=-20.1

Pb++ sol none 25°C 0.0 M 1967CHa (11877) 387

K(PbL(s)=PbL)=-3.83

K(PbL(s)+L=PbL2)=-3.44

Ks1: Pb01.57(s) + 1.57OH- = 0.57PbO2(OH)2-- + 0.43PbOOH-.

Ks2: Pb01.33(s) + 1.33OH- = 0.33PbO2(OH)2-- + 0.67PbOOH-.

Pb++ ISE NaCl 25°C 3.00M U B2=7.78 1967SIa (11878) 388

B3=9.962

Pb++ gl NaNO3 25°C 2.00M U 1965HUa (11879) 389

*K1=-8.84

*B(2,1)=-7.11

$$*B(4,4)=-21.72$$

Pb++ gl NaCl04 25°C 2.00M U 1964HUa (11880) 390

*K1=-7.92

$$*B(4,4)=-19.35$$

Pb++	oth none	25°C	0.0	U	1963FSa (11881)	391
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$$K_{so} = -14.9 \quad (\text{Pb}_2\text{O}(\text{OH})_2)$$

K_{so} = -15.1 (PbO, yellow)

Kso=-15.3 (PbO, red)

$$K_s(\text{PbO} + \text{H}_2\text{O} = \text{Pb}(\text{OH})_2) = -4.4 (\text{red})$$
$$K_s(\text{PbO(s)}(\text{red}) + \text{H}_2\text{O} + \text{OH}^- = \text{Pb}(\text{OH})_3^-) = -1.4 \quad \text{From thermodynamic data}$$

Pb++	sol	none	22°C	0.0	U	1963SHb (11882)	392
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$$K_{so}(\text{Pb}(\text{OH})_2) = -16.79$$

Pb++ cal NaCl04 25°C 3.0M U H 1962C0a (11883) 393

DH(*B(4,4))=84.0 kJ mol⁻¹, DS=-87 J K⁻¹ mol⁻¹; DH(*B(3,4))=110.9, DS=-66.1;

$\text{DH}(*\text{B}(6,8))=206.9$; $\text{DS}=-113.0$. $*\text{B}(m,n: m\text{Pb}+n\text{H}_2\text{O}=\text{Pbm}(\text{OH})_n+n\text{H})$

Pb++ gl NaCl04 25°C 3.0M U 1962P0a (11884) 394

$$*B(4,4)=-19.19$$
$$*B(2,1) = -6.30$$

Pb++ gl oth/un 25°C 3.0M U I 1962P0a (11885) 395

*B(2,1)=-6.49

$$*B(4,4)=-18.95$$

Medium: 3 M $\text{Mg}(\text{ClO}_4)_2 + \text{Pb}$ at various concs. Also in $\text{Ba}(\text{ClO}_4)_2$

Pb++ vlt none 25°C 0.0 U 1961NRa (11886) 396

B3=13.90

Pb++ ISE NaCl04 25°C 3.0M U I B2=10.90 1960C0a (11887) 397

B3=13.66

 $K3=2.76$ $\text{K}(\text{PbOH})$
$$*K(Pb(OH)_2 + H_2O = M(OH)_3 + H) = -1$$
$$: B2=10.32, B3=13.29, *K2=-9.4,$$

*K3=-10.8. Kso(yellow PbO)=-14.9, -15.3(red PbO)

$$AB = \begin{pmatrix} 1 & 2 & 3 \\ 2 & 3 & 4 \\ 3 & 4 & 5 \end{pmatrix}, \quad AC = \begin{pmatrix} 1 & 2 & 3 \\ 2 & 3 & 4 \\ 3 & 4 & 5 \end{pmatrix},$$

Pb++ gl NaCl04 25°C 3.0M U I 19600Lb (11888) 398

*K1=-7.9

$$*B(4,4)=-19.25$$
$$*B(3,4) = -22.87$$
$$*B(6,8) = -42.14$$

*B(m,n) (mPb+nH₂O=Pbm(OH)_n+nH⁺). In 0.3 M NaClO₄: *K₁=-7.8, *B(4,4)=-19.90,

*B(3,4)=-23.35, *B(6,8)=-42.66. Pb/Hg electrode also used

Pb++ gl NaCl04 25°C 3.0M U I 19600Lc (11889) 399

$$*B(4,4)=-19.25$$

$$*B(2,1)=-6.45$$

Data with many different concentrations of Pb

Pb++	vlt	NaClO4	25°C	2.0M	U			19590Ha (11890)	400
						B3=12.62			
Pb++	oth	none	17°C	0.0	U			1956CHa (11891)	401
						Kso(Pb(OH)2)=-18.7			
Pb++	vlt	none	25°C	0.0	U			1955VLa (11892)	402
						B3=13.95			
Pb++	gl	NaClO4	20°C	0.06M	U	I		1954FAa (11893)	403
						*K1=-8.37			
						*B(4,4)=-18.05			
Pb++	vlt	KNO3	25°C	1.0M	U		K1=6.9 K3=2.5 *K1=-7.1 *K2=-10.1 *K3=-11.5	B2=10.8 1954G0a (11894)	404
Pb++	EMF	none	22°C	0.0	U	T		1952KFa (11895)	405
							Kso(Pb(OH)2)=-19.96		
							Kso=-19.49(40 C), -19.46(60 C)		
Pb++	sol	none	?	0.0	U			1951DCa (11896)	406
							Kso(Pb(OH)2)=-19.52		
Pb++	sp	oth/un	?	var	U			1947GUa (11897)	407
							*K1=-8.44		
Pb++	gl	none	18°C	0.0	U			1945PEa (11898)	408
							*K1=-7.78 *B(2,1)=-7.30 *B(4,4)=-20.93		
Pb++	sol	none	25°C	0.0	U		K1=7.82 K3=3.06 Ks(Pb(OH)2(s)=PbOH+OH)=-7.46 Ks(Pb(OH)2(s)=Pb(OH)2)=-4.40 Ks(Pb(OH)2(s)+OH)=-1.34	B2=10.88 1939GVa (11899)	409
Pb++	gl	oth/un	15°C	var	U			1937CBa (11900)	410
							*K1=-7.7		
Pb++	dis	oth/un	20°C	var	U		K1=5.77	1933JEa (11901)	411
Pb++	sol	oth/un	25°C	var	U		K2=3.02 Ks(Pb(OH)2(s)=PbOH+OH)=-7.59	1929T0a (11902)	412

Pb++ sol none 25°C 0.0 U 1928RSa (11903) 413
Ks=-1.394(PbO(s),red)
Ks=-1.275(PbO(s),yellow)
Ks(Pb(OH)2(s)+OH-)=-1.11
Ks: PbO(s)+H2O+OH-=Pb(OH)3

Pb++ sol oth/un 20°C 1.0M U I 1922ARa (11905) 415
Ks=-1.86(PbO(s),red)
Ks=-1.64(PbO(s),yellow)
Medium:NaOH. Ks: PbO(s)+H₂O+OH⁻=Pb(OH)₃. Kso=-15.33(red), -15.04(yellow)

Pb++	kin oth/un 100°C	var U	K1=6.39 *K1=-5.99	1913KUa (11907) 417
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Pb++ oth oth/un 18°C dil U K2=4.40 1907PLa (11909) 419

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	vlt	non-aq	450°C	100%	U		K1=4.30	B2=9.84	1972DSa (12632)	420
Ligand=Oxide, O--; Medium: (Li,K)Cl eutectic										

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

Pb++ sol NaCl 37°C 0.17M C 1986RGA (13285) 421
Kso((Pb)10(PO4)6(OH)2)=-167.91
Method: dissolution in phthalate/HCl buffer, 0.165 M NaCl.
Kso((Pb)10(PO4)5.4(VO4)0.6(OH)2)=-169.39.

Pb++ sol NaCl 37°C 0.17M C 1986RGa (13286) 422
Method: dissolution in phthalate/HCl buffer, 0.165 M NaCl.

Kso((Pb)10(P04)4.5(V04)1.5(OH)2)=-173.58.

Pb++ sol NaCl 37°C 0.17M C 1986RGa (13287) 423

Method: dissolution in phthalate/HCl buffer, 0.165 M NaCl.

Kso((Pb)10(P04)3.69(V04)2.31(OH)2)=-175.89

Pb++ sol NaCl 37°C 0.17M C 1986RGa (13288) 424

Method: dissolution in phthalate/HCl buffer, 0.165 M NaCl.

Kso((Pb)10(P04)3(V04)3(OH)2)=-176.09.

Pb++ sol NaCl 37°C 0.17M C 1986RGa (13289) 425

Method: dissolution in phthalate/HCl buffer, 0.165 M NaCl.

Kso((Pb)10(P04)2.6(V04)3.4(OH)2)=-178.51.

Pb++ sol NaCl 37°C 0.17M C 1986RGa (13290) 426

Method: dissolution in phthalate/HCl buffer, 0.165 M NaCl.

Kso((Pb)10(P04)1.9(V04)4.1(OH)2)=-181.71.

Pb++ gl NaCl04 25°C 0.10M U M K1=3.27 1974RMa (13291) 427

K(Pb+HL)=3.27

Mixed complexes with cysteine, citrate and NTA

Pb++ gl NaCl04 25°C 0.10M U M 1974RMb (13292) 428

K(Pb+HL)=3.27, K(Pb+2HL)=5.58

K(Pb+Fulvate+HL)=11.27

K(Pb+H2L)=2.37

K(PbFulvate+HL)=3.21

Pb++ sol none 25°C 0.0 U 1973NRa (13293) 429

Kso(Pb(H2L)2)=-9.84, Kso(Pb5L3Cl)=-84.4(chloropyromorphite)

Pb++ sol none 25°C 0.0 U 1973NRa (13294) 430

Kso(Pb5L3X)=-71.6(X=F), -78.1(X=Br)

Pb++ sol none 25°C 0.0 U 1972NRc (13295) 431

K(Pb+H2L)=1.5

K(Pb+HL)=3.1

Kso(Pb3L2)=-44.4, Ks(PbHL(s)=Pb+HL)=-11.43, Kso(Pb5L3OH)=-76.8

Pb++ sol oth/un 18°C var U 1951ZHa (13296) 432

Ks(PbHL(s)=Pb+HL)=-9.85

Pb++ ISE none 38°C 0.0 U M 1932JPa (13297) 433

Kso(Pb3L2)=-43.53

Ks(PbHL(s)=Pb+HL)=-11.36

Kso(Pb5L3Cl)=-79.115

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

Kso=-6.99

Pb++ ISE none 25°C 0.0 U T 1929MJa (13299) 435

Kso(Pb3L2)=-42.10

Ks(PbHL(s)=Pb+HL)=-9.90

At 37.5 C Kso=-42.00, Ks=-9.62

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

Pb++ gl NaCl04 25°C 3.00M C 1987BFa (13639) 436

B(PbH3L)=15.60

B(PbH2L)=14.74

Pb++ sp NaCl04 25°C 1.00M U K1=7.14 B2=10.08 1981KKd (13640) 437

K(Pb+L+HL)=6.91

In 1 M NaNO3, K=6.31, B2=9.22, K(Pb+L+HL)=6.49. Potentiometry also used

Pb++ vlt NaNO3 25°C 1.0M U K1=6.4 B2=9.40 1968CFd (13641) 438

Pb/Hg electrode also. In 0.1 M NaCl04: K1=7.3, B2=10.15

Pb++ ISE oth/un 25°C var U K1=10.1 1958VRb (13642) 439

Pb++ cal oth/un 25°C ? U H 1956YVb (13643) 440

DH(B2)=-4.2 kJ mol-1

Pb++ oth oth/un 35°C var U B2=5.32 ? 1950HAa (13644) 441

Pb++ vlt oth/un 25°C 0.10M U K1=11.24 1949RRa (13645) 442

Medium: Na4L

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

Pb++ ISE NaCl04 25°C 0.30M U K1=8.39 B2=9.06 1969IKa (13893) 443

B3=10.81

Pb++ sp NaCl04 30°C 1.0M U 1964SSc (13894) 444

K(Pb+HL)=6.32

Pb++ vlt KNO3 25°C 1.00M U 1957PLa (13895) 445

B(Pb3L4)=-4.52 ?

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

Cyclotrimetaphosphate;

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

Pb++ ISE NaCl04 25°C 0.40M C K1=2.8 1986Kuc (13967) 446

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

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

Pb++ ISE NaCl04 25°C 0.30M C K1=4.5 1986Kuc (14018) 447

P6018----- H6L (233)
Cyclohexametaphosphate;

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

Pb++ ISE NaCl04 25°C 0.10M C K1=7.5 B2=12.1 1986Kuc (14073) 448
B3=15.3

P8024----- H8L (232)
Cyclooctametaphosphate;

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

Pb++ ISE NaCl04 25°C 0.10M C K1=7.5 B2=12.1 1986Kuc (14085) 449
B3=15.3

ReO4- HL Perrhenate (2581)
Rhenate(VII), Perrhenate;

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

Pb++ ISE none 25°C 0.0 C K1=5.08 B2= 8.16 1977CCa (14107) 450
Kso(PbReO4)=-8.16

Method: Pb ion selective electrode. Medium pH 6.0.
Data extrapolated to I=0.0 M. Anion is ReO4-- (ReVI).

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

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

Pb++ vlt oth/un 25°C 0.72M C 1999AVb (14425) 451
K(Pb+HL)=8.0
K(Pb+2HL)=15.4

Method: determination of Pb by cathodic stripping voltammetry using oxine
as competitive ligand. Medium: seawater, pH 8.0, S=35.

Pb++ vlt NaCl 25°C ? U 1994ZMa (14426) 452
K1eff=7.1
K2eff=6.4

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

Pb++ oth none ? 0 U 1990DKa (14427) 453
 *K_S(PbS+H=Pb+HS)=-13.97
 *K_S(PbS+HS=PbHS₂)=-7.2

Pb++	oth none	25°C	0.0	C	1989DYa (14428)	454
K _{Pb} +H _S =P _b S+H=3.4						
*K _{so} (P _b S)=-14.8						
K _{so} (P _b S)=-11.4						

Pb++ oth none 25°C 0 U 1988LIa (14429) 455
Kso(PbS)=-32.5
*Kso(PbS)=-15.2

Pb++ oth none 25°C 0 U 1988SBC (14430) 456
Kso(PbS,galena)=-33.24

Pb++ ISE NaCl 24°C 0.10M M K_{so}(PbS)=-29.5 1987PFb (14431) 457

Pb++ dis oth/un 25°C 0.69M U 1985DYa (14432) 458
K(Pb+H₂S=PbHS₂+3H)=-7.33
K(Pb+2H₂S=Pb(HS)₂+2H)=-1.06

Pb++ sol none 30°C 0.0 U T 1979GBb (14434) 460
 $K(\text{PbS(s)} + \text{H}_2\text{S} + \text{HS} = \text{Pb}(\text{HS})_3) = -6.6$
 $K(\text{PbS(s)} + \text{H}_2\text{S} = \text{Pb}(\text{HS})_2) = -7.8$

Pb++	vlt oth/un	25°C	var	U	1970CLa (14435)	461
				K _{so} =-26.1		

Pb++ oth none 25°C 0.0 U 1964PCa (14437) 463
 $K(PbL(s) + 2H = Pb + H_2S(g)) = -4.77$

Pb++ oth none 25°C 0.0 U T 1959CZa (14438) 464
 $K_{so}(PbL) = -27.15$
 From thermodynamic data. $K_{so} = -22.58(100\text{ C}), -18.80(200\text{ C}), -14.55(400\text{ C}), -12.25(600\text{ C})$

Pb++ vlt none 25°C 0.0 U 1956KRa (14439) 465
 $K_{so}(PbL) = -27.9$
 $K(PbL(s) + 2H = Pb + H_2S(g)) = -6.93$

Pb++ oth none 25°C 0.0 U 1952GGc (14440) 466
 $K_{so}(PbL) = -27.10$
 From thermodynamic data

Pb++ oth none 25°C 0.0 U 1952LAb (14441) 467
 $K_{so}(PbL) = -28.15$
 From thermodynamic data

Pb++ oth none 25°C 0.0 U 1940KAa (14442) 468
 $K_{so}(PbL) = -28.17$
 From thermodynamic data

Pb++ sol none 25°C 0.0 U 1937KAa (14443) 469
 $K_{so}(PbL) = -29.37$

Pb++ sol none 18°C 0.0 U 1936RAa (14444) 470
 $K_{so}(PbL) = -29.04$
 $K(PbL(s) + 2H = Pb + H_2S(g)) = -6.1$
 I=0 corr. From thermodynamic data $K_{so} = -29.15$

Pb++ cal oth/un 20°C dil U H 1935ZRa (14445) 471
 $DH(PbL(s) + 2H = Pb + 2H_2S(g)) = -76.4\text{ kJ mol}^{-1}$

Pb++ ISE oth/un 10°C var U 1922JCa (14446) 472
 $K_{so}(PbL) = \text{ca. } -12.5$
 By Pb electrode. Medium: NaHL

Pb++ sol oth/un 18°C 2.0M U T 1921TRa (14447) 473
 $K_{so}(PbL) = -28.3$
 $K(PbL(s) + 2H = Pb + H_2S(g)) = -5.3$
 Medium: HCl

Pb++ sol oth/un 25°C var U 1909BZa (14448) 474
 $K_{so}(PbL) = -27.47$
 $K(PbL(s) + 2H = Pb + H_2S(g)) = -4.50$

Pb++ ISE oth/un rt 1.0M U 1898BEa (14449) 475
 $K(PbL(s) + H_2L(aq) = Pb + 2HL) = -3.18$

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

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

B4=2.04

Method: Pb/Hg electrode. Medium: Me2NCHO, 1.2 M NaClO4

Pb++ cal oth/un 25°C 0.0 U H K1=1.09 1967NTa (15205) 486
 Medium: 0 corr. DH(K1)=1.3 kJ mol⁻¹, DS=25.1 J K⁻¹ mol⁻¹

Pb++ ISE NaClO4 25°C 4.0M U I M T K1=1.08 B2=1.48 1963MKf (15206) 487
 K3=1.10
 B3=2.58
 Medium: LiClO4. Method: Pb/Hg electrode. In 4 M LiL: K(Na+PbL3)=-1.82,
 K(K+PbL3)=-1.40, K(Cs+PbL3)=-1.13

Pb++ ISE oth/un 20°C var U 1961GRb (15207) 488
 B8=-1.14
 Medium: NaL. Method: Pb/Hg electrode

Pb++ sol oth/un 25°C var U 1960GRc (15208) 489
 K(PbL2(s)+4L=PbL6)=-4.89
 K(PbL2(s)=Pb+2L)=-6.87
 B6=1.74 assumed. Small misprint in original?

Pb++ ISE NaClO4 20°C 6.50M U 1960GRc (15209) 490
 B6=1.74

Pb++ ISE NaNO3 20°C 5.80M U I 1959GRc (15210) 491
 B5=-0.57
 B6=-1.01
 Method: Pb/Hg electrode. In 2.5 M acetone: B6=-0.65; 5.7 M acetone: B6=-0.12
 In acetone K(PbL(s)+2L=PbL3)=-1.33

Pb++ sol R4N.X 25°C var U 1959KBb (15211) 492
 K(PbL2(s)=Pb+2L)=-4.37
 K(PbL2(s)+4L=PbL6)=-4.64
 B6=-0.27
 Medium: NH4L

Pb++ vlt NaClO4 25°C 3.0M U K1=0.78 B2=0.99 1959THa (15212) 493
 B3=0.97
 B4=0.92
 B5=0.86
 B6=0.63

Pb++ vlt R4N.X 25°C 2.0M U I K1=1.70 B2=0.92 1959TSa (15213) 494
 K3=-0.62
 K4=0.78
 B4=1.08
 Medium: NH4NO3; also K1 to B5 for MeOH/H2O, EtOH/H2O

Pb++ vlt NaClO4 25°C 3.0M U K1=1.08 B2=1.15 1958PDa (15214) 495
 K3=-0.32

K4=0.33
K5=-0.84
K6=0.35

B6=0.67

Pb++ ISE oth/un 20°C var U T H K1=1.09 B2=2.52 1957GSa (15215) 496
DH(K1)=-2.5 kJ mol⁻¹ (20 C); K1=1.06(40 C). Method: Pb/Hg electrode

Pb++ vlt KNO3 25°C 2.0M U K1=-1.3 B2=-0.90 1957IWa (15216) 497
K3=-0.2

Pb++ vlt NaClO4 25°C 2.0M U K1=0.54 B2=0.87 1956LSa (15217) 498
B3=-1
B4=0.85

Pb++ sol oth/un 25°C var U 1951YAb (15218) 499
K(PbL2(s)=Pb+2L)=-4.70
B6=-0.3

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

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

Pb++ sol oth/un 25°C 0.0 C TI 1992PKa (16440) 500
Kso(PbS04)=-7.760

Medium: 0-6.0 m H2SO4. Measurements by ICP-MS.
At 0 C, Kso=-8.010. At 60 C, Kso=-7.675.

Pb++ sol NaClO4 65°C 3.00M U T H K1=0.84 B2=1.1 1990CSa (16441) 501
Medium: 3.0 M LiClO3. Data also for 5 C; 25 C; 45 C

Pb++ vlt NaClO4 20°C 0.10M C K1=2.30 1989HSa (16442) 502
Method: anodic amalgam voltammetry

Pb++ vlt NaClO4 25°C 1.00M U K1=1.20 1989Nwa (16443) 503

Pb++ ISE NaClO4 25°C 0.00 U K1=2.77 1985SBa (16444) 504

Pb++ oth NaCl 23°C 0.70M U K1=1.048 B2=1.183 1982ROa (16445) 505

Pb++ vlt NaClO4 25°C 3.0M U K1=0.74 B2=2.00 1972BHb (16446) 506

Pb++ con none 25°C 0.0 U K1=2.75 1970GNa (16447) 507
Using an ion selective electrode K1=2.70

Pb++ sol NaClO4 25°C 0.20M U K1=2.07 1969DIa (16448) 508
Kso=-7.03

Pb++ oth non-aq 260°C 100% U T K1=-0.03 1966Iwa (16449) 509

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

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

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

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

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

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

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

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

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

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

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

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

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

Pb++ EMF oth/un 25°C 0.0 U T 1934LEa (16462) 522
Kso(PbL)=-7.80

Method: Pb/Hg electrode. Kso=-8.01(0 C), -7.87(15 C), -7.73(35 C),
-7.65(46.5 C)

Pb++ sol oth/un 25°C 0.0 U T 1931CMA (16463) 523
Kso(PbL)=-7.80

Also using Pb/Hg electrode. Kso=-8.01(0 C), -7.90(12.5 C), -7.71(37.5 C),

-7.63(50 C)

Pb++	con	oth/un	25°C	0.0	U				1908K0a (16464)	524
										Kso(PbL)=-7.80

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

Pb++	con	oth/un	25°C	dil	U T				1903B0b (16466)	526
										Kso(PbL)=-7.75

Kso=-7.78(20 C)

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	NaCl04	30°C	1.0M	C		K1=3.63 B2= 4.83 B3=6.70	1988GAb (16885)	527

Method: polarography.

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

Pb++	vlt	NaCl04	18°C	1.00M	U		K1=3.6 B2=3.8 B3=4.3 B4=4.7	1985KWa (16887)	529
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Pb++	vlt	NaNO3	25°C	0.15M	C I		B2=5.33	1983GHa (16888)	530
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Method: polarography. Data for 0.15-2.1 M NaNO3. Also data for 10-50% v/v EtOH/H2O, NaNO3. Evi for tris complex at higher I and high % EtOH.

Pb++	sol	oth/un	25°C	var	U		K1=3.35 B2=5.64 B3=6.86 Kso=-6.91	1970V0a (16889)	531
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Pb++	vlt	NaCl04	25°C	3.00M	U		K1=2.56 B2=4.88 B3=6.34 B4=6.23	1959DPa (16890)	532
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Pb++	sol	oth/un	25°C	var	U		B2=5.59 B3=6.62 B4=7.7 Kso(PbL)=-6.58 K(PbL(s)=PbL)=-0.98	1959KBb (16891)	533
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K(PbL(s)+L=PbL2)=0.05

Pb++	vlt	KN03	25°C	2.60M	U		B2=5.89	1958DAa (16892)	534
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Pb++ sol oth/un 25°C var U B2=5.13 1951YAb (16893) 535
B3=6.35
Kso(PbL)=-6.40

Pb++ EMF oth/un ? var U 1904EUa (16894) 536
B4=7.2

Se-- H2L Selenide (6335)
Selenide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	oth	none	25°C	0.0	U			1964BUe (16946)	537
							Kso=-42.1		

SeCN- HL Selenocyanate CAS 73102-11-2 (440)
Selenocyanate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	oth/un	20°C			U TIH		1959GKa (16992)	538
							B6=3.85		
Medium: KL. DH(B6)=-149.0 kJ mol ⁻¹ ; B6=2.97(30 C). At 20 C: B6=2.89									
In 2 M acetone: B6=4.14, 5 M: B6=4.63. Method: Pb/Hg electrode									

Pb++ sol oth/un 20°C var U I 1959GOb (16993) 539
K(PbL2(s)+4L=PbL6)=-2.63
K(PbL2(s)=Pb+2L)=-6.48
In acetone: K(PbL2(s)+L=PbL3)=-0.82

SeO3-- H2L Selenite CAS 7783-00-8 (2391)
Selenite;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	sol	oth/un	20°C			U		1957CTa (17068)	540
							Kso(PbL)=-11.5		

SeO4-- H2L Selenate CAS 7783-08-6 (459)
Selenate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	sol	oth/un	25°C	dil	U	T H		1959SKa (17107)	541
							Kso(PbL)=-6.84		
DH(so)=16.1 kJ mol ⁻¹ . Kso=-7.09(0 C), -6.95(15 C), -6.75(35 C), -6.64(50 C)									

Pb++ sol none 25°C 0.0 U 1955SBa (17108) 542
Kso(PbL)=-6.84

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

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

Pb++ oth none 25°C 0.0 U 1957BAa (17218) 543
 From thermodynamic data. $K_s(1.5PbSiO_4(s) + H_2O = 0.5SiO_2(s) + Pb + 20H) = -16.38$

V04--- H3L CAS 15457-75-7 (1586)
 Vanadate; V02(OH)3-- or polymers

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

Pb++ sol NaCl 37°C 0.17M C 1986RGa (17388) 544
 $K_{so}((V04)_6(OH)_2) = -187.24$

Method: dissolution in phthalate/HCl buffer, 0.165 M NaCl.

$K_{so}((Pb)_{10}(PO_4)_1.2(V04)_4.8(OH)_2) = -184.45$.

W04-- H2L Tungstate CAS 13783-36-3 (445)
 Tungstate;

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

Pb++ ISE none 25°C 0.0 C 1977CCa (17443) 545
 $K_{so}(PbW04) = -10.08$

Method: Pb ion selective electrode. Medium pH 6.0.

Data extrapolated to I=0.0 M.

 Pb++ sol oth/un 20°C 0.00 U 1973BAa (17444) 546
 $K_{so} = -16.07$ (tetragonal)

CH03F3S HL CAS 1493-13-6 (6755)
 Trifluoromethanesulfonic acid; CF3SO3H

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

Pb++ nmr KCl 20°C 0.10M U 2000XEa (17468) 547
 $K_1 = ca. 0.091$

CH202 HL Formic acid CAS 64-18-6 (37)
 Methanoic acid; H.COOH

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

Pb++ oth NaCl04 25°C 2.0M U $K_1 = 1.15$ 1990FTa (17628) 548
 Methods: averaged results from potentiometric, polarographic and
 spectrophotometric measurements.

 Pb++ nmr NaNO3 25°C 0.40M U $K_1 = 1.56$ B2= 2.74 1983NRa (17629) 549

Method: 207Pb nmr.

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

CH3NO L Formamide CAS 75-12-7 (3536)
Methanoic acid amide; HCO.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	alc/w	?	40%	U	I	K1=-0.90 B2=0.8	1962MGa (17679)	558
Medium: 40% MeOH, 0.05 NaClO4. K1=1.00(77%); B2=1.11(77%), 2.35(92%) 3.4(100%); B3=2.11(85%)									
Pb++	vlt	alc/w	?	90%	U	I	K1=1.7 B2=2.75	1962MGa (17680)	559
Medium: 90% EtOH, 0.05 NaClO4. K1=0.67(13%),1.11(40%),1.85(71%),1.85(82%); B2=1.63(71%),1.83(82%),4.20(96%); B3=4.49(96%),4.6(100%); B4=4.9(100%)									

CH4N2S L Thiourea CAS 62-56-6 (51)
Thiocarbamide, Thiourea; (H2N)2CS

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

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

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

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

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

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

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

In 100% H2O: K1=0.17; B2=0.86; B3=1.35; B4=1.47; B5=1.43; B6=1.81

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

Medium: LiClO4

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

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

Medium: 0.01 NH4NO3, Data also in 20%, 40% and 60% dioxan/H2O

In 60%: K1=1.02, B2=1.52, B3=2.50, B4=2.87, B5=4.37

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

CH5N3S L CAS 79-19-6 (372)

Thiosemicarbazide; H2N.CS.NH.NH2

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

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

Method: polarography.

CH5O3P H2L CAS 13590-71-1 (1752)

Methylphosphonic acid; CH3.PO3H2

Pb++ vlt NaClO4 25°C 1.0M C K1=4.22 B2= 6.29 1984RBe (19018) 582
Method: polarography.

Pb++ vlt NaClO4 25°C 1.0M C K1=4.0 B2= 6.28 1984RPa (19019) 583
Method: polarography.

Pb++ sol NaClO4 25°C 1.0M C K1=3.60 B2= 6.10 1982BJa (19020) 584
Kso(PbL)=-8.78

Method: pH and lead amalgam electrodes.
At I=0.0 M, Kso(PbL)=-10.32.

Pb++ vlt KNO3 30°C 1.00M U M 1982GSa (19021) 585
B(Cd(2-mercaptopbenzoate)2L) = 14.73

Pb++ sol oth/un 20°C 2.10M U M K1=7.63 1978KUa (19022) 586
B(PbL(lactate))=8.77

Pb++ ISE KNO3 25°C 0.10M C 1977BLc (19023) 587
Kso(PbC2O4)=-9.40

Method: Pb ion selective electrode.

Pb++ sol NaClO4 25°C 1.0M U H K1=4.16 B2= 6.32 1977HOb (19024) 588
K(Pb+HL)=1.42
Ks=-9.02

Pb++ sol NaClO4 20°C 2.10M U M 1977KWa (19025) 589
B(PbL(C2H5COO))=8.46
B(PbLA)=9.40
B(PbLB)=8.77
B(PbLC)=8.85

B(PbLA2)=10.30, B(PbLD)=8.83, B(PbL(HCOO))=7.80, B(PbL(CH3COO))=8.52.

H2A=malonic acid, H2B=succinic acid, H2C=malonic acid, H2D=tartaric acid

Pb++ sol oth/un 20°C 2.10M U K1=6.99 1971KSd (19026) 590

Pb++ vlt KNO3 25°C 0.00 U I K1=4.91 B2=6.76 1970KLa (19027) 591
Ionic strength 1.50, K1=3.33, B2=5.10

Pb++ vlt KNO3 30°C 1.50M U K1=3.32 B2=5.03 1968JKb (19028) 592

Pb++ dis NaClO4 20°C 0.10M U B2=6.56 1963STc (19029) 593

Pb++ sol oth/un 26°C 0.0 U B2=6.54 1942KPa (19030) 594

C2H3NO4 HL CAS 625-75-2 (2968)

Nitroacetic acid; O2N.CH2.COOH

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

Pb++ kin oth/un 18°C 0.20M U K1=0.14 1949PEa (19208) 595

Pb++ vlt oth/un 25°C var C K1=2.16 B2= 2.91 1987CRb (20094) 607
B3=3.49

Method: polarography. Medium: 0.05-2.0 M acetate buffer. Evidence for higher coordination numbers involving outer sphere complexes.

Pb++ nmr oth/un 25°C var C T H K2=1.86 1983HHb (20095) 608

Method: 207Pb nmr. K2 value valid for 0.01-1.0 M Pb(OAc)2 solution.

From data for 30-50 C: DH(K2)=14.2 kJ mol⁻¹, DS(K2)=82.9 J K⁻¹ mol⁻¹.

Pb++ nmr NaNO3 25°C 0.40M U K1=2.11 B2= 3.06 1983NRa (20096) 609
Method: 207Pb nmr.

Pb++ ISE KNO3 25°C 0.10M U K1=2.09 B2=3.29 1980Nwa (20097) 610

Pb++ EMF diox/w 25°C 50% U K1=3.29 1978SPa (20098) 611

Pb++ ISE NaClO4 25°C 0.50M U I K1=1.45 B2=2.64 1975SAe (20099) 612

Pb++ kin NaClO4 25°C 1.00M U K1=2.21 1973HHb (20100) 613

Pb++ vlt NaClO4 25°C 0.30M U M 1971KTd (20101) 614
K(Pb(Asp)+L)=1.85
K(Pb(Asp)L+L)=0.13
K(PbA+L)=0.49

H2A=iminodiethanoic acid

Pb++ gl NaNO3 30°C 0.40M U K1=1.93 1970BTa (20102) 615

Pb++ EMF NaClO4 25°C 2.00M U K1=1.91 B2=2.42 1970Fma (20103) 616
B3=3.79

Pb++ gl NaClO4 20°C 1.00M U K1=2.31 B2=4.23 1970PTd (20104) 617
B3=6.00

Pb++ vlt NaClO4 25°C 2.00M U K1=2.15 B2=3.18 1968FPa (20105) 618
B3=3.33

Pb++ gl oth/un 25°C 0.0 U K1=2.68 B2=4.08 1964AMa (20106) 619

Pb++ gl NaClO4 30°C 1.0M U K1=2.02 B2=2.98 1964BSe (20107) 620

Pb++ gl non-aq 25°C 100% U K2=7.55 1964KLa (20108) 621
Medium: ethanoic acid

Pb++ ISE NaClO4 25°C 3.0M U K1=2.33 B2=3.60 1963GOa (20109) 622
B3=3.59
B4=2.87

Pb++ gl NaClO4 20°C 0.10M U K1=2.20 B2=3.59 1962KPa (20110) 623

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

C2H4O2S H2L Thioglycolic CAS 68-11-1 (596)								
Mercaptoethanoic acid; HS.CH2.COOH								
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Pb++	gl	oth/un	25°C	.002M	U		K1=8.5	1955LMA (20355) 638

C2H4O3 HL Glycolic acid CAS 79-14-1 (33)								
2-Hydroxyethanoic acid; HO.CH2.COOH								
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Pb++	gl	NaClO4	25°C	1.00M	U	T	K1=2.01 B2=2.94	1971BVA (20603) 639
K(Pb(OH)3+L=PbH-1LOH+OH)=-0.70								

$$K(\text{Pb}(\text{OH})_3 + 2\text{L} = \text{PbH} - 2\text{L}_2 + \text{OH}) = -0.15$$

Pb++	vlt	NaClO4	18°C	2.00M	U	K1=1.90 B3=3.38	B2=3.05	1970FBa (20604)	640
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Pb++	EMF	NaClO4	25°C	2.00M	U	K1=1.83 B3=3.15 B4=4.28	B2=2.86	1970FMa (20605)	641
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Pb++	vlt	KNO3	30°C	1.0M	U	K1=1.90	B2=3.16	1966JGc (20606)	642
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Pb++	EMF	NaClO4	25°C	3.0M	U	K1=2.23 B3=3.26	B2=3.24	1965BWb (20607)	643
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C2H5NO2 HL Glycine CAS 56-40-6 (85)
2-Aminoethanoic acid; H2N.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	NaClO4	25°C	0.50M	C		K1=4.76 B(PbHL)=11.1	B2= 7.40	1995CDc (21656)	644
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Pb++	vlt	NaClO4	25°C	0.40M	C		K1=5.3 B3=10.0 K(Pb+OH+L)=9.9 K(Pb+OH+2L)=11.1 K(Pb+2OH+L)=12.7	B2= 7.80	1991YNb (21657)	645
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Method: polarography. K(Pb+2OH+2L)=13.6, K(Pb+3OH+L)=14.7,
K(Pb+4OH+L)=17.3.

Pb++	ISE	NaClO4	25°C	3.0M	C	T		1988BBa (21658)	646
							K(Pb+HL=PbL+H)=-5.04 K(Pb+2HL=PbL2+2H)=-12.10 K(Pb+HL)=1.23; K(Pb+2HL)=1.75 K(Pb+3HL)=2.07		

Pb++	vlt	NaClO4	25°C	0.70M	C		K1=4.91	B2= 8.01	1986CSa (21659)	647
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Method: differential pulse polarography.

Pb++	ISE	KNO3	25°C	0.10M	U	T	K1=5.63 K(PbL+H)=7.70 K(PbH-1L+H)=8.48	B2=8.10	1985DVa (21660)	648
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Pb++	vlt	KNO3	25°C	1.50M	C		K1=4.28	B2=6.58	1984LSa (21661)	649
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Pb++	oth	NaClO4	35°C	0.01M	U	T	K1=5.86	B2=8.38	1984YSa (21662)	650
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Method: paper electrophoresis.

Pb++	nmr	NaNO3	25°C	0.40M	U			1983NRa (21663)	651
							K(Pb+HL)=1.48		

K(Pb+2HL)=2.08

Method: 207Pb nmr.

Pb++	ISE	KNO3	25°C	0.10M	U	K1=5.00	B2=7.73	1980NWa (21664)	652
Pb++	gl	NaClO4	25°C	1.00M	U	T K1=5.46 B(PbHL)=12.60 B(PbH-1L)=-2.77	B2=9.32	1979KMa (21665)	653
Pb++	gl	NaClO4	25°C	3.00M	U	T K1=5.28 B(PbHL)=11.41	B2=8.32	1979MTa (21666)	654
Pb++	gl	NaClO4	25°C	1.00M	U	T K1=4.78 B(PbHL)=10.75 B(PbHL2)=14.7 B(PbH2L2)=21.15	B2=7.66	1978BSb (21667)	655
Pb++	gl	NaClO4	25°C	3.00M	C T H	T K1=5.75 B(PbHL)=11.88 B(PbH-1L)=-1.89		1976CWb (21668)	656
DH(K1)=-12.4 kJ mol ⁻¹ , DH(PbHL)=-25, DH(PbH-1L)=17, DS1=69, DS(PbHL)=143									
Pb++	gl	NaClO4	25°C	3.00M	U	T K1=5.600 B(PbHL)=11.396 B(PbH-1L)=-2.142		1975CMa (21669)	657
Pb++	gl	KNO3	25°C	0.50M	U M	K1=4.36 B(PbLA)=8.86 B(PbLA2)=4.9 ?	B2=7.62	1969HLA (21670)	658

HA=salicylaldehyde

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

Pb++	gl	KNO3	25°C	0.10M	U	B2=7.7		1955MMa (21672)	660
By polarography B2=7.4									
Pb++	gl	oth/un	22°C	0.01M	U	B2=9.3		1952PEa (21673)	661
Medium: Pb(NO3)2									
Pb++	gl	oth/un	25°C	->0	U	K1=5.47	B2=8.86	1951MOa (21674)	662
Pb++	gl	oth/un	25°C	0.01M	U	K1=5.53	B2=9.98	1949MMa (21675)	663
Pb++	sol	oth/un	25°C	->0	U	K1=5.17		1941KRa (21676)	664

C2H5NO3 HL CAS 2921-14-4 (1892)

Aminooxyethanoic acid; H2N.O.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.50M	U		K1=3.09	1985WTa (21830)	665

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

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

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

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.15M	U		K1=6.74 B(Pb2L)=8.73 B(Pb3L4)=33.31 B(Pb3L5)=39.88	1982JHa (22073)	668

Pb++	cal	KNO3	25°C	0.50M	U	H		1974BHa (22074)	669
							B(Pb3L5)=38.48 B(Pb2L)=9.07 B(Pb3L4)=22.78		

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

Pb++	gl	KNO3	25°C	0.50M	C			1974BTa (22075)	670
							B(Pb2L)=9.071 B(Pb2L2)=15.769 B(Pb3L5)=38.496 B(Pb2L3)=22.037, (Pb3L4)=32.74		

Pb++	gl	oth/un	?	0.0	U		B2=14.53	1961AMa (22076)	671

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

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

Medium: NaOH

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

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

Also in D2O, K1=-1.5

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KNO3	25°C	0.10M	C	I		1986ABb (22410)	674

K(Pb+2OH+L)=12.50
 Method: polarography. Also data for 16-68%w/w MeOH/H2O.
 In 33.3% MeOH/H2O, K(Pb+3OH+L)=14.37, K(Pb+OH+2L)=9.94.

Pb++	vlt	KNO3	25°C	1.00M	U			1985SBb (22411)	675
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B(PbLOH)=8.377
 B(PbL(OH)2)=11.701
 B(Pb(OH)3)=12.640

Pb++	gl	NaNO3	25°C	0.10M	U		K1=4.10	1984HNa (22412)	676
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Pb++	vlt	alc/w	25°C	20%	U	I	K1=8.08 B2=8.48	1962MSa (22413)	677
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Medium: 20% EtOH, 0.01 M NaClO4. 0%:K1=6.70, B2=7.58; 40%:B2=9.03;
 60%: B2=9.71

Pb++	vlt	KNO3	25°C	0.10M	U		B2=7.56	1959MPa (22414)	678
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C2H7NS HL CAS 60-23-1 (588)
 2-Aminoethanethiol; H2N.CH2.CH2.SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KCl	25°C	0.10M	C		K1=10.10 B(PbHL)=14.32 B(PbH-1L)=3.68	1995LMa (22496)	679

Pb++	gl	KCl	25°C	0.10M	U		K1=9.9 K(Pb+HL)=5.24	1955FRa (22497)	680
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Pb++	gl	KNO3	25°C	0.15M	U		K1=11.10	1955LMa (22498)	681
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C2H7O2PS2 HL CAS 5930-72-3 (4229)
 O,O-Dimethyldithiophosphoric acid; (CH3O)2.PS.SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++ vlt mixed RT 50% C B2=5.85 1986HSd (22545) 682
 B3=8.02
 B4=8.76

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

C2H7O3P H2L CAS 71778-99-9 (1978)

Ethylphosphonic acid; CH3.CH2.PO3H2

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

Pb++ gl NaNO3 25°C 0.10M M K1=3.69 1999DSa (22569) 683

C2H8N2 L Ethylenediamine CAS 107-15-7 (23)

1,2-Diaminoethane; H2N.CH2.CH2.NH2

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

Pb++ vlt NaNO3 25°C 0.10M U T H K1=5.05 B2=8.67 1995CMa (23206) 684

B(PbH-1L2)=12.6

B(PbH-2L2)=15.29

Data also at 5 and 50 C. Method: Differential pulse polarography

 Pb++ vlt KNO3 25°C 1.5M C M K1=4.08 B2= 7.24 1986GVa (23207) 685

K3=2.86

K(PbL+A)=1.62

K(PbL2+A)=0.97

Method: polarography. H2A is adipic acid.

 Pb++ gl NaClO4 25°C 0.10M U K1=5.04 1985MMa (23208) 686

 Pb++ vlt KNO3 25°C 1.50M C K1=5.11 B2=7.13 1984LSa (23209) 687

 Pb++ gl KNO3 25°C 0.10M C I R B2=8.5 1984PAa (23210) 688

IUPAC evaluation

 Pb++ vlt KNO3 25°C 1.5M C M K1=4.08 B2= 7.24 1983GJa (23211) 689

B3=10.10

K(PbL+A)=2.02

B(PbAL)=6.10

B(PbAL2)=8.38

Method: polarography. B(PbA2L)=6.54. H2A is maleic acid.

 Pb++ vlt KNO3 25°C 1.5M C M K1=4.08 B2= 7.24 1983GJc (23212) 690

B3=10.10

Method: polarography. Ternary complexes with malonate.

 Pb++ vlt KNO3 25°C 1.5M C M K1=4.079 B2= 7.24 1983GVa (23213) 691

B3=10.099

B(PbAL)=6.329

B(PbA2L)=6.702

B(PbAL2)=8.459

Method: polarography. H2A is malonic acid.

Pb++ vlt KNO3 25°C 0.20M U B2=8.44 1974K0d (23214) 692

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

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

Pb++ oth oth/un ? ? U B2=26.90 1948MMa (23217) 695

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

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ vlt NaClO4 25°C 0.40M C K1=11.8 B2=14.50 1989N0c (23393) 696
K(Pb+H3L)=3.6
K(Pb+HL)=12.0
K(Pb+OH+L)=13.4
K(Pb+2HL)=16.7

Method: polarography. Medium pH=11.5-12.0.

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

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ gl KNO3 25°C 0.1M C K1=10.15 1985MMa (23459) 697
B(PbHL)=17.0
B(PbH2L)=21.4

C3H02F5 HL CAS 422-64-0 (3547)
Pentafluoropropanoic acid; C2F5.CO0H

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ vlt NaClO4 25°C 2.0M U K1=-0.03 B2=-0.01 1964CCb (23479) 698
By ion-selective electrode: K1=-0.21, B2=-0.34

C3H3N02 HL Cyanoacetic CAS 372-09-8 (38)
Cyanoethanoic acid; NC.CH2.CO0H

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ gl NaClO4 25°C 2.0M U K1=1.14 B2= 1.68 1981MFa (23511) 699

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

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      gl  alc/w  25°C  50%  U          K1=1.26  B2=1.60  1978PBa (23576) 700
-----
Pb++      vlt KNO3  25°C  0.10M U          K1=-0.40 B2=-0.47 1966CRb (23577) 701
*****
C3H4N2          L      Imidazole          CAS 288-32-4 (90)
1,3-Diazole, imidazole; C3H4N2
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      vlt NaNO3 25°C  2.0M U      M      K1=2.9    B2=4.3    1985SSe (23914) 702
                                         B3=6.3
                                         B(PbLA)=4.19
                                         B(PbLB)=4.3
                                         B(PbLC)=8.0

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H2L=tartaric acid, H2B=malonic acid, H3C=citric acid. Measurements at pH 6

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-----
Pb++      vlt NaNO3 25°C  2.0M C          K1=2.90  B2= 4.30 1983SSd (23915) 703
                                         B3=6.30

```

Method: polarography.

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-----
Pb++      gl  oth/un 25°C  0.50M U          K1=1.1    B2=2.09 1977HMb (23916) 704
Medium: imidazolinium nitrate
*****
C3H4N2S          HL      Imidazolethiol  CAS 872-35-5 (1823)
2-Mercaptoimidazole; C3H3N2.SH
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      gl  NaClO4 25°C  0.10M U          K1=6.53          1977STc (23973) 705
*****
C3H4O3          HL      Pyruvic acid      CAS 127-17-3 (1152)
2-Oxopropanoic acid; CH3.CO.COOH
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      vlt NaClO4 30°C  1.0M C      M      K1=1.96  B2= 3.30 1988GMc (24061) 706
                                         B(Pb(ox)L)=2.19
                                         B(Pb(ox)L2)=3.77
                                         B(Pb(cit)L)=4.91
                                         B(Pb(cit)2L)=6.20

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Method: polarography. B(PbAL)=3.49, B(PbAL2)=3.17,
B(PbA2L)=4.02. HA is benzoic acid.

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-----
Pb++      gl  NaClO4 25°C  0.11M U TIH      K1=1.72          1984GMc (24062) 707
Data for 30-50 C. Data for 0.03-0.11 M NaClO4. At I=0.0 M, K1=2.67
DH(K1)=25.5 kJ mol-1, DS(K1)=120 J K-1 mol-1.
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Pb++	gl	NaClO4	25°C	2.00M	U		K1=1.50		1980MKb (24063)	708

Pb++	gl	KNO3	25°C	1.0M	M T H		K1=2.20		1976DFb (24064)	709
DH(K1)=-31.8 kJ mol-1, DS=-64.4 J K-1 mol-1. 30 C: K1=2.10; 40 C: 1.94; 50 C: 1.77; 55 C: 1.69										

Pb++	EMF	NaClO4	25°C	3.00M	U		K1=2.04	B2=3.24	1969LWb (24065)	710

Pb++	ISE	NaClO4	25°C	3.00M	U		K1=2.04	B2=3.40	1969LWb (24066)	711

Pb++	sol	NaClO4	25°C	3.00M	U		K1=2.04		1969LWb (24067)	712

C3H4O4 H2L Malonic acid CAS 141-82-2 (79) Propanedioic acid; CH2(COOH)2										

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

Pb++	vlt	oth/un	25°C	0.1M	U		K1=2.6		1995FFa (24523)	713

Pb++	vlt	NaNO3	25°C	2.00M	U	M	K1=2.6 B3=4.5 B(PbLpy)=3.2 B(PbL2py)=3.7	B2=3.3	1985KSd (24524)	714

Pb++	vlt	NaClO4	25°C	1.0M	U	M	K1=2.9 B3=4.58	B2=4.17	1985RRd (24525)	715
B(PbL(oxalate))=5.6										

Pb++	vlt	NaNO3	25°C	2.0M	U	M	K1=2.6 B3=4.5 B(PbL(imidazole))=4.3 B(PbL2(imidazole))=5.5 B(PbL(imidazole)2)=7.3	B2=3.3	1985SSe (24526)	716

Pb++	vlt	KNO3	25°C	1.50M	C		K1=1.74	B2=3.14	1984LSa (24527)	717

Pb++	vlt	KNO3	25°C	1.5M	C	M	K1=2.86 B3=4.27 B(Pb(en)L)=6.33 B(Pb(en)L2)=6.70 B(Pb(en)2L)=8.46	B2= 3.66	1983GJc (24528)	718
Method: polarography. B(Pb(pn)L)=6.75, B(Pb(pn)L2)=6.94, B(Pb(pn)2L)=9.04; pn is 1,2-diaminopropane.										

Pb++	vlt	KNO3	25°C	1.5M	C		K1=2.857 B3=4.268	B2= 3.67	1983GVa (24529)	719
Method: polarography.										

Pb++	EMF	NaClO4	25°C	2.00M	C		K1=2.79 B3=4.16	B2=4.20	1977H0a (24530)	720

B(1,1,1)=6.20
 B(2,1,2)=11.54
 B(1,1,2)=8.28

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

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

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

C3H5NO2S2		H2L						CAS 29596-83-6 (3558)	
N-(Dithiocarboxy)aminoethanoic acid; HS.CS.NH.CH2.COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
<hr/>									
Pb++	oth	oth/un	25°C	0.10M	U		K1=7.30 B2=13.0	1973RBc (24659)	723
<hr/>									
Pb++	ISE	KN03	25°C	0.10M	U		K1=7.32 B2=13.03	1967BPa (24660)	724

C3H6O		L		Acetone				CAS 67-64-1 (1912)	
Propan-2-one, acetone; CH3.CO.CH3									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
<hr/>									
Pb++	vlt	mixed	18°C	90%	U	I	K1=1.2 B2=1.5	1962MGb (24856)	725
							B3=1.70		
							B4=1.7		
							B5=1.1		

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

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

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

C3H6O2		HL		Propionic acid				CAS 79-09-4 (35)	
Propanoic acid; CH3.CH2.COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
<hr/>									
Pb++	vlt	NaClO4	25°C	2M	C		K1=2.31 B2=3.32	1996GGa (25028)	727
							B3=3.64		

Method: Differential Pulse Polarography

Pb++	oth	NaClO4	25°C	2.0M	U		K1=2.19	1990FTa (25029)	728
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Methods: averaged results from potentiometric, polarographic and spectrophotometric measurements.

Pb++ gl NaCl04 25°C 2.0M U K1=2.17 B2=3.21 1982TGa (25030) 729
B3=3.42

semi-integral linear sweep voltammetry, using slsv/HDME method
For slsv/DME K1=2.19 , B2=3.20 , B3=3.44

Pb++ vlt NaCl04 25°C 2.0M C T H K1=2.116 B2= 3.22 1980TGb (25031) 730
B3=3.45

Method: polarography. Data for 6-30 C. DH(K1)=-4.7 kJ mol⁻¹, DS(K1)=
25 J K⁻¹ mol⁻¹; DH(K2)=5.7, DS(K2)=41.

Pb++ ISE NaCl04 25°C 0.50M U I K1=1.61 1975SAe (25032) 731

Pb++ EMF NaCl04 25°C 2.00M U K1=2.07 B2=3.35 1970FMa (25033) 732

Pb++ ISE NaCl04 25°C 3.00M U K1=1.90 B2=2.57 1969LWb (25034) 733
B3=2.08

Pb++ vlt NaCl04 25°C 2.00M U K1=2.34 B2=3.76 1968FPa (25035) 734
B3=3.90
B4=4.18

Pb++ ISE oth/un 35°C 0.0 U K1=2.64 B2=4.05 1966AAa (25036) 735

Pb++ gl none 25°C 0.0 U K1=2.34 B2=3.63 1958SBb (25037) 736

Pb++ EMF oth/un 35°C ->0 U K1=2.64 B2=4.15 1955MAc (25038) 737

C3H6O3 HL CAS 81598-26-7 (2521)

3-Hydroxypropanoic acid; HO.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaCl04	25°C	2.00M	U	H	K1=2.10 K3=0.34	B2=3.17	1978FDa (25274) 738

Pb++ vlt NaCl04 25°C 2.00M U K1=2.13 B2=3.10 1973NPa (25275) 739
B3=3.56

Pb++ ISE NaCl04 25°C 1.00M U K1=1.95 B2=2.94 1971BVa (25276) 740

C3H6O3 HL L-Lactic acid CAS 79-33-4 (82)

L-2-Hydroxypropanoic acid; CH3.CH(OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	EMF	NaCl04	25°C	1.0M	C TIH	R	K1=1.99	B2= 2.90	2003PLa (25500) 741

IUPAC Recommended values. Data for metal complexes of all aliphatic hydroxycarboxylic acids evaluated critically

Pb++ gl NaClO4 25°C 2.0M U K1=2.06 B2=3.05 1982TGa (25501) 742
B3=3.24

semi-integral linear sweep voltammetry using slsv/HDME method
For slsv/DME, K1=2.03, B2=3.07, B3=3.26

Pb++ vlt NaClO4 25°C 2.0M C T H K1=2.052 B2= 3.04 1980TGb (25502) 743
B3=3.26

Method: polarography. Data for 5-34 C. DH(K1)=-4.2 kJ mol⁻¹, DS(K1)=
25.1 J K⁻¹ mol⁻¹; DH(K2)=4.2, DS(K2)=33.

Pb++ gl NaClO4 25°C 2.00M U H K1=2.16 B2=3.23 1978FDa (25503) 744
K3=0.44

Pb++ sol oth/un 20°C 2.10M U M 1978KUa (25504) 745
B(PbL(ox))=8.77

Pb++ gl NaClO4 25°C 2.00M U K1=2.16 B2=3.23 1976KGa (25505) 746
B3=3.67

Pb++ gl NaClO4 ? 1.0M U M T K1=1.99 B2=2.78 1971BVa (25506) 747
K(Pb(OH)₃+L=PbLH-1(OH)+OH+H₂O)=-0.70

Pb++ ISE NaClO4 25°C 3.00M U K1=2.26 B2=3.30 1969LWb (25507) 748
B3=3.33

Pb++ sol NaClO4 25°C 3.00M U K1=2.29 B2=3.62 1969LWb (25508) 749

Pb++ vlt NaClO4 25°C 2.00M U K1=2.15 B2=3.14 1968FPa (25509) 750
B3=3.26
B4=2.95

Pb++ EMF NaClO4 25°C 1.0M U K1=1.98 B2=2.98 1967TGa (25510) 751
Method: quinhydrone electrode.

Pb++ EMF NaClO4 25°C 3.0M U K1=2.26 B2=3.30 1965BWb (25511) 752
B3=3.33

Pb++ sol NaClO4 25°C 3.0M U K1=1.71 B2=2.38 1965BWc (25512) 753

Pb++ sol oth/un ? ->0 U K1=2.40 B2=3.80 1955MAc (25513) 754

Pb++ con oth/un 25°C ? U K1=2.777 1954EMa (25514) 755

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

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

Pb++ gl NaClO4 25°C 2.00M U K1=2.10 B2=3.26 1979KFa (25631) 756
B3=3.48

Pb++ vlt NaClO4 ? 2.00M U K1=2.53 B2=3.76 1968TFa (25632) 757
K3=-0.30
K4=0.23

C3H7NO2 HL Alanine CAS 56-41-7 (86)
2-Aminopropanoic acid; H2N.CH(CH3).COOH

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

Pb++ vlt NaClO4 25°C 1.0M C K1=4.58 B2= 7.83 1996MSa (26230) 758
K(Pb+HL)=1.11
K(Pb+2HL)=1.40
K(Pb+HL+L)=5.00

Method: polarography

Pb++ vlt NaClO4 25°C 1.0M C K1=4.58 B2= 7.83 1991PMa (26231) 759
K(Pb+HL)=1.12
K(Pb+2HL)=1.40
K(Pb+HL+L)=5.00

Method: polarography. Medium pH 3.2-7.0

Pb++ ISE KNO3 25°C 0.10M U T K1=5.43 B2=7.00 1985DVa (26232) 760
K(PbL+H)=7.77
K(PbH-1L+H)=8.35

Pb++ gl NaClO4 25°C 1.0M C T K1=5.43 B2=9.22 1982BMb (26233) 761
B(PbHL)=12.71
B(PbH-1L)=-3.02

Pb++ ISE NaClO4 25°C 1.00M C K1=4.4 1977B0a (26234) 762
B(PbHL)=10.74
B(PbHL2)=15.2
B(PbH2L2)=21.2

Pb++ gl KNO3 20°C 0.37M U K1=4.15 B2=9.39 1966SWa (26235) 763

Pb++ vlt KNO3 30°C 1.0M U K1=4.18 B2=6.83 1964RSe (26236) 764
B(PbL2(OH))=9.85

Pb++ gl oth/un 25°C ->0 U K1=5.00 B2=8.24 1951M0a (26237) 765

Pb++ sol oth/un 25°C ->0 U K1=5.52 1941KRa (26238) 766

C3H7NO2 HL B-Alanine CAS 107-95-9 (575)
3-Aminopropanoic acid; H2N.CH2.CH2.COOH

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

Pb++ ISE NaClO4 25°C 1.00M U K1=4.2 1977B0b (26471) 767

B(PbHL)=11.92
B(PbHL2)=23.04

Pb++ vlt KNO3 30°C 1.0M U 1964RSe (26472) 768

B(PbL2(OH)2)=12.11

C3H7NO2 HL DL-Alanine CAS 302-72-7 (189)
DL-2-Aminopropanoic acid; H2N.CH(CH3).COOH

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

Pb++ gl NaCl04 25°C 3.00M U K1=5.17 B2=8.13 1979MTa (26542) 769

B(PbHL)=11.58

C3H7NO2S H2L Cysteine CAS 52-90-4 (96)
2-Amino-3-mercaptopropanoic acid; H2N.CH(CH2.SH)COOH

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

Pb++ gl NaCl04 25°C 1.0M C T K1=12.20 B2=15.90 1982BMb (26814) 770

B(PbHL)=16.16

B(PbHL2)=25.10

B(PbH-1L)=2.04

Pb++ sp NaCl04 25°C 0.50M U K1=12.21 1982NAb (26815) 771

Pb++ gl NaCl04 25°C 3.00M C K1=12.21 B2=18.57 1976Cwa (26816) 772

B(PbHL)=17.35

B(PbHL2)=27.48

B(PbH-1L2)=7.33

Pb++ gl NaCl04 25°C 3.00M C T H K1=13.21 1976CWb (26817) 773

B(PbHL)=17.43

B(PbHL2)=27.30

DH(K1)=-42.4 kJ mol⁻¹, DH(PbHL)=-57, DH(PbHL2)=-112, DS1=111, DS(PbHL)=143

Pb++ gl NaCl04 25°C 0.10M U M K1=11.45 1974RMa (26818) 774

Mixed complexes with HPO4(B=16.53), citrate(18.27) and NTA(25.53)

Pb++ gl NaCl04 25°C 3.00M U K1=13.36 B2=19.20 1973CTb (26819) 775

B3=22.47

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

Pb++ gl KNO3 25°C 0.15M U K1=12.20 1955Lma (26821) 777

By polarography K1=12.75

C3H7NO3 HL Serine CAS 56-45-1 (49)
2-Amino-3-hydroxypropanoic acid; H2N.CH(CH2.OH)COOH

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

C3H7NO3 HL CAS 2786-22-3 (1893)
2-Aminooxypropanoic acid;CH3.CH(O.NH2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.50M	U			K1=2.52	1985WTa (27212)	786

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

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

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

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

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

Pb++	gl	oth/un	25°C	0.10M	U	T	K1=0.54 B3=2.13 B4=2.39 B5=3.06 B6=3.60	1975FFc (27636)	791
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Medium: LiClO4

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

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

Medium: NaOH

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

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

Medium: NaOH

C3H8O2S HL 1-Thioglycerol CAS 96-27-5 (1848)
 3-Mercapto-1,2-propanediol HS.CH2.CH(OH).CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	cal	KN03	25°C	0.50M	U	H	K1=6.634 B3=15.90 B(Pb3L5)=38.09 B(Pb2L)=7.87 B(Pb3L4)=32.415	1974BHa (27711)	794

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

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Pb++      gl  KNO3    25°C 0.50M C      K1=6.634  B2=12.495 1974BTa (27712) 795
                                     B3=15.901
                                     B(Pb3L5)=38.088
                                     B(Pb2L)=7.87
                                     B(Pb3L4)=32.415
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C3H8O3      L      Glycerol      CAS 56-81-5 (2707)
Propane-1,2,3-triol; HO.CH2.CH(OH).CH2.OH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Pb++      ISE NaCl04 25°C 1.0M U      K1=1.15      1967VL a (27744) 796
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C3H8O3S3      H3L      (1324)
1,3-Dimercaptopropanesulfonic acid; HS.CH2.CH2.CH(SH).SO3H
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Pb++      EMF KNO3    20°C 0.10M U      K1=16.79  B2=23.86 1968PRc (27765) 797
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C3H8O3S3      H3L      Unithiol      CAS 74-61-3 (1271)
2,3-Dimercaptopropanesulfonic acid; HS.CH2.CH(SH).CH2.SO3H
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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```

Pb++      gl  KNO3    25°C 0.50M U TIH      K1=17.29  B2=24.81 1992NOa (27795) 798
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Pb++      EMF KNO3    20°C 0.10M U      K1=16.38  B2=22.21 1968PRc (27796) 799
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C3H9NO      L      CAS 2799-16-8 (905)
1-Aminopropan-2-ol; H2N.CH2.CH(OH).CH3
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Pb++      vlt KNO3    25°C 0.10M U      K1=5.49  B2=7.72 1981AAa (27876) 800
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C3H9NO      L      CAS 109-83-1 (899)
2-(Methylamino)ethanol; HO.CH2.CH2.NH.CH3
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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```

Pb++      vlt KNO3    25°C 0.10M U      K1=6.00  B2=8.08 1980AAa (27888) 801
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C3H9NO      L      CAS 156-87-6 (906)
3-Aminopropan-1-ol; HO.CH2.CH2.CH2.NH2
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Pb++      vlt KNO3    25°C 0.10M U      K1=6.72  B2=7.54 1981AAa (27917) 802

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C3H10N2	L	CAS 78-90-0 (2905)
1,2-Diaminopropane; CH3.CH(NH2)CH2.NH2		

Method: polarography. Ternary complexes with malonate.

Method: polarography. H2A is adipic acid.

Method: polarography. $B(PbA_{2L})=6.82$. H_2A is maleic acid.

Method: polarography. H2A is malonic acid.

Method: polarography. A is malonic acid.

C3H12N09P3 H6L NTPA CAS 6419-19-8 (2920)
Nitrilotris(methylenephosphonic acid); N(CH2PO3H2)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=15.8 K(PbL+H)=6.7 K(PbH2L+H)=3.8 K(PbHL+H)=5.16 K(PbH3L+H)=1.9	1997DBb (28581)	812

Pb++	vlt	NaClO4	25°C	0.40M	C		K(Pb+H3L)=5.3 K(Pb+H2L)=7.0 K(Pb+HL)=10.1	1988NKb (28582)	813
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Method: polarography. Medium pH=4.5-5.0.

Pb++	gl	alc/w	25°C	10%	U		K1=16.22 K(PbL+H)=6.49 K(PbHL+H)=5.28 K(PbH2L+H)=3.57	1987SHa (28583)	814
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In 10% ethanol/H2O; I=0.1 M NaClO4.

C4H02F7 HL (3582)
Heptafluorobutanoic acid; CF3.CF2.CF2.COOH

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

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

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	C		K(Pb+4H2L)=20.00	1979DDb (28724)	816

Pb++	gl	diox/w	30°C	50%	U		K1=3.44	1973CSb (28725)	817
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Medium: 50% dioxan, 0.1 M NaClO4

C4H4N2O5 HL 2-Thiouracil CAS 141-90-2 (4278)
4-Hydroxy-2-mercaptopyrimidine; HO.C4H2N2.SH

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

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

C4H4O4 H2L Maleic acid CAS 110-16-7 (111)
cis-Butenedioic acid; HOOC.CH:CH.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KNO3	25°C	1.0M	C	M	K1=2.254 B2= 3.40 B3=3.827 B(PbAL2)=5.32 B(PbAL)=4.98 B(PbA2L)=5.40	1985DVb (29115)	819

Method: polarography. H2A is oxalic acid.

Pb++	vlt	NaNO3	25°C	2.00M	U	M	K1=1.70 B2=2.60 B3=3.56 B(PbLpy)=3.63 B(PbL2py)=3.18	1985KSd (29116)	820
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Pb++	vlt	KNO3	25°C	1.5M	C		K1=2.81 B2= 3.48 B3=4.10	1983GJa (29117)	821
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Method: polarography.

Pb++	gl	NaClO4	25°C	1.00M	C		K1=2.75 B2=4.03 K(PbHL)=0.58 K(Pb+2HL)=0.7 B3=4.36	19750Sa (29118)	822
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Pb++	vlt	NaClO4	25°C	0.20M	U	I	K1=3.0 B2=4.5 B3=5.4	1967NMa (29119)	823
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At I=0.1 M: K1=3.2

Pb++	gl	oth/un	25°C	0.10M	U		K1=3.2	1960YYa (29120)	824
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C4H6N2 L Methylpyrazole CAS 453-58-3 (368)
3-Methyl-1,2-diazole; C3H3N2.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	alc/w	25°C	50%	U		K1=0.99	1978PBa (29506)	825

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	0.10M	U		K1=6.95	1977STc (29665)	826

C4H6O2 HL Crotonic acid CAS 107-93-7 (2990)
But-2-enoic acid; CH3.CH:CH.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KNO3	27°C	1.0M	C		K1=2.0 B2= 3.51	1983CPb (29721)	827

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

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

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

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

C4H6O4 H2L Succinic acid CAS 110-15-6 (112)
1,4-Butanedioic acid; H00C.CH2.CH2.COOH

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

Pb++ gl KNO3 25°C 0.10M C K1=2.99 1997VZa (30016) 829
K(Pb+HL)=1.95

Pb++ vlt oth/un 25°C 0.1M U K1=2.4 1995FFa (30017) 830

Pb++ vlt NaNO3 25°C 2.00M U M K1=2.7 B2=3.4 1985KSd (30018) 831
B3=3.9
B(PbLpy)=2.8
B(PbL2py)=3.1

Pb++ vlt NaClO4 25°C 1.0M C M K1=2.82 B2= 3.72 1984RPa (30019) 832
B3=4.54
B(PbAL)=5.41
B(PbAL2)=5.86
B(PbA2L)=6.10

Method: polarography. H2A is oxalic acid.

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

Method: polarography. A is imidazole.

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

Method: polarography. Medium pH 6.8.

Pb++ ISE NaClO4 25°C 1.00M C K1=2.68 B2=3.99 1977H0a (30022) 835
B3=3.89
B(1,1,1)=6.98
B(2,1,2)=13.01
B(1,1,2)=8.84

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

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

Pb++ gl oth/un 25°C 0.10M U K1=2.8 1960YYa (30024) 837

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

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

Pb++ gl NaNO3 30°C 0.40M U K1=1.17 1970BTa (30087) 838

C4H6O4S H2L Thiodiacetic CAS 123-93-3 (140)
2,2'-Thiodiglycolic acid, Thiodiethanoic acid; HOOCH2.S.CH2.COOH

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

Pb++ gl NaClO4 25°C 0.50M U K1=3.36 1976Nca (30226) 839
B(PbHL)=5.74

Pb++ gl oth/un 25°C 0.10M U K1=3.6 1957TBb (30227) 840

C4H6O4S H3L Thiomalic acid CAS 70-49-5 (109)
2-Mercaptosuccinic acid, 2-Sulfanyl-1,4-butanedioic acid; HOOCH(SH).CH2.COOH

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

Pb++ gl oth/un 30°C .007M U K1=10.80 1967MSd (30353) 841
Medium: 0.007 ClO4-

C4H6O4S2 H4L CAS 2418-14-6 (4264)
2,3-Dimercaptobutanedioic acid; HOOCH(SH).CH(SH).COOH

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

Pb++ sp NaClO4 20°C 0.01M U K1=19.80 1973ENa (30395) 842
K(2Pb+L)=28.05

C4H6O4S2 H2L CAS 505-73-7 (3585)
Dithiodiethanoic acid; HOOCH2.S.S.CH2.COOH

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

Pb++ gl NaClO4 25°C 0.10M U K1=2.4 1968SKd (30413) 843

C4H6O4S2 H4L CAS 304-55-2 (3002)
meso-2,3-Dimercaptobutanedioic acid (meso-dithiotartaric acid)

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

Pb++ gl KNO3 25°C 0.10M C K1=17.4 1991Hca (30430) 844

Pb++ sp NaClO4 20°C 0.10M U K1=17.46 1972EGa (30432) 846
K(PbL+Pb)=9.74
K(Pb2L+H2L=2PbL+2H)=-13.10

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++ gl NaCl04 25°C 0.10M U K1=3.2 1966SYa (30453) 848

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
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Pb++ vlt NaCl04 25°C 0.40M C K1=5.0 B2= 5.90 1978NSa (30910) 851
B3=7.3
K(Pb+OH+L)=10.9
K(Pb+OH+2L)=12.9
K(Pb+2OH+L)=16.3

Pb++ vlt NaClO4 25°C 0.20M U I K1=4.53 B2=6.82 1964KKc (30912) 853
K1=4.95(I=0), 4.92(I=0.04); K2=2.45(I=0), 2.38(I=0.04)

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

C4H6O6 H2L L-Tartaric acid CAS 87-69-4 (92)

L-Tartaric acid, L-2,3-Dihydroxybutanedioic acid; HOOC.CH(OH).CH(OH).COOH

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

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

Method: polarography.

Pb++ vlt KNO3 25°C 1.0M C M K1=1.944 B2= 3.84 1985DVb (31326) 856

B(PbAL)=4.71

B(PbAL2)=5.32

B(PbA2L)=5.40

Method: polarography. H3A is citric acid.

Pb++ vlt NaNO3 25°C 2.00M U M K1=1.30 B2=4.20 1985KSd (31327) 857

B(PbLpy)=2.40

Pb++ vlt NaNO3 25°C 2.0M U M K1=1.30 B2=2.9 1985SSe (31328) 858

B(PbL(imidazole))=4.19

Pb++ ISE NaClO4 25°C 1.00M U K1=2.60 B2=3.95 1972BVb (31329) 859

B(PbHL)=5.45

B(PbHL2)=7.45

Pb++ gl NaClO4 25°C 0.10M U K1=3.09 1972MRc (31330) 860

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

Pb++ EMF oth/un 22°C ? U K1=4.34 1969PDb (31331) 861

Pb++ dis NaClO4 20°C 0.10M U K1=2.92 1963STc (31332) 862

Pb++ oth oth/un 25°C ? U K1=3.78 1956PAa (31333) 863

Pb++ oth oth/un ? ? U K1=3.04 1955K0a (31334) 864

C4H7NO2S2 H2L CAS 2030-77-5 (4281)

2-Dithiocarbaminopropanoic acid; CH3.CH(NH.CSSH).COOH

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

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

C4H7NO2S2 H2L CAS 40520-03-4 (4280)

N-(Dithiocarboxy)aminopropanoic acid; HSSC.NH.CH2.CH2.COOH

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

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

C4H7NO3 HL CAS 543-24-8 (3586)
N-Acetylglycine; CH3.CO.NH.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	nmr	NaNO3	25°C	0.40M	U		K1=1.81 B2= 2.51	1983NRa (31505)	867

Method: 207Pb nmr.

Pb++	gl	NaNO3	30°C	0.40M	U		K1=1.40	1970BTa (31506)	868
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C4H7NO4 H2L Aspartic acid CAS 56-84-8 (21)
Aminobutanedioic acid; H2N.CH(CH2.COOH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=6.08	2003AHa (31909)	869
Pb++	gl	KNO3	25°C	0.10M	M	M	K1=6.08	1996AEa (31910)	870

Data for ternary complexes with dipicolinic acid.

Pb++	EMF	NaClO4	25°C	1.00M	C		K1=6.00 B2=8.30	1989BFa (31911)	871
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B(PbHL)=11.50
B(PbH2L)=14.33
B(PbHL2)=16.30
B(PbH2L2)=22.35.
Method: Pb/Hg electrode. B(PbH3L2)=25.35, B(PbH4L2)=28.30.

Pb++	vlt	NaClO4	25°C	0.70M	C		K1=5.86 B2= 8.85	1986CSa (31912)	872
------	-----	--------	------	-------	---	--	------------------	-----------------	-----

Method: differential pulse polarography.

Pb++	ISE	KNO3	25°C	0.10M	U		K1=6.08 B2=8.51	1985DVa (31913)	873
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K(PbL+H)=7.35
K(PbL+2H)=9.10
K(PbH-1L+H)=8.65

Pb++	oth	NaClO4	25°C	1.0M	U		K1=6.02	1982CSc (31914)	874
------	-----	--------	------	------	---	--	---------	-----------------	-----

B(PbHL)=11.28
B(PbH-1L)=-3.54
Method: recalculation of literature data.

Pb++	gl	NaClO4	25°C	1.00M	U		K1=6.02	1979KMa (31915)	875
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B(PbHL)=11.28
B(PbH-1L)=-3.54

Pb++	gl	NaClO4	25°C	3.00M	U		K1=6.67 B2=9.43	1973CTb (31916)	876
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B(PbHL)=12.28

Pb++	vlt	NaClO4	25°C	0.30M	U		K1=6.03 B2=8.18	1971KTd (31917)	877
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Pb++ vlt KNO3 30°C 1.0M U M K1=5.88 B2=7.38 1964RSe (31918) 878
B(PbL2(CO3))=8.88

C4H7N04 H2L IDA CAS 142-73-4 (118)

Iminodiethanoic acid; HN(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	U		K1=7.41	1983FSa (32328)	879
Pb++	con	KNO3	25°C	1.00M	U		K1=6.86 B2=9.15 B(PbHL)=10.7	1981MOa (32329)	880
Pb++	ISE	KNO3	25°C	0.10M	U		K1=7.67	1980Nwa (32330)	881
Pb++	sp	NaClO4	25°C	0.50M	U		K1=7.36	1976KIa (32331)	882
Pb++	gl	NaClO4	25°C	0.50M	U		K1=7.31 B(PbHL)=10.36 B(PbH2L)=12.7	1976Nca (32332)	883
Pb++	ISE	NaClO4	25°C	0.50M	U		K1=7.31 B(PbHL)=10.36 B(PbH2L)=12.7	1972NAa (32333)	884
Pb++	vlt	NaClO4	25°C	0.30M	U		K1=7.76 B2=11.54	1971KTd (32334)	885
Pb++	gl	KNO3	20°C	0.10M	U	H	K1=7.45	1964ANa (32335)	886
By calorimetry: DH(K1)=-14.0 kJ mol-1, DS=95.0 J K-1 mol-1									

C4H8N2O2	H2L	Dimethylglyoxim					CAS 95-45-4 (2032)		
2,3-Butanedione dioxime, Dimethylglyoxime; CH3.(C:NOH).(C:NOH).CH3									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	25°C	50%	U		K1=7.3	1954CFa (32546)	887

C4H8N2O3	HL	Asparagine					CAS 70-47-3 (17)		
2-Aminobutanedioic acid 4-amide; H2N.CH(CH2.CO.NH2).COOH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	M	M	K1=3.71	1996AEa (32716)	888
Data for ternary complexes with dipicolinic acid.									
Pb++	EMF	NaCl	25°C	1.00M	C		K1=3.60 B2=5.29 B(PbHL)=8.50 B(PbH2L2)=18.70	1996BFa (32717)	889

Method: Pb/Hg electrode

Pb++ gl NaClO4 25°C 3.00M U K1=4.91 B2=7.82 1973CTb (32718) 890
B3=8.82

Pb++ vlt KNO3 30°C 1.0M U K1=4.36 B2=6.23 1964RSe (32719) 891
B(PbL2(OH))=10.02

C4H8N2O3 HL Gly-Gly CAS 556-50-3 (54)
Glycyl-glycine; H2N.CH2.CO.NH.CH2.COOH

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

Pb++ nmr NaNO3 25°C 0.40M U 1983NRa (33039) 892
K(Pb+HL)=1.49
K(Pb+2HL)=1.97

Method: 207Pb nmr.

Pb++ gl NaClO4 25°C 3.00M C T H K1=3.82 1976CWb (33040) 893
B(PbHL)=10.01
DH(K1)=-12.7 kJ mol⁻¹, DH(PbHL)=-38, DS1=30, DS(PbHL)=34 J K⁻¹ mol⁻¹

Pb++ gl NaClO4 25°C 3.00M U K1=3.375 1975CMA (33041) 894
B(PbHL)=9.907

Pb++ vlt NaClO4 25°C 0.10M U K1=3.32 B2=5.35 1974NBa (33042) 895
K(Pb+HL)=1.50

Pb++ nmr oth/un 25°C 0.80M U K1=3.0 1972RLb (33043) 896
K(Pb+HL)=1.30

Medium: 0.8 M, 0.2 Pb(NO3)2

Pb++ gl oth/un 25°C ? U T K1=5.04 B2=9.84 1971PEd (33044) 897
Temperature range 10-40C
K1(10 C)=5.39, K1(40 C)=4.80, B2(10 C)=10.41, B2(40 C)=9.35

Pb++ gl oth/un 21°C 0.01M U B2=5.8 1952PEa (33045) 898
Medium: Pb(NO3)2

Pb++ gl oth/un 25°C ->0 U K1=3.23 B2=5.93 1951MOa (33046) 899

C4H8N2O4 H2L HDA CAS 19247-05-3 (1025)
Hydrazine-N,N'-diethanoic acid; HOOC.CH2.NH.NH.CH2.COOH

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

Pb++ sp NaClO4 20°C 0.10M U K1=6.81 1987IKa (33091) 900
K(Pb+HL)=3.0

C4H8N2S L Thiosinamine CAS 109-57-9 (2377)
1-Allylthiourea; CH2:CH.CH2.NH.CS.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KCl	25°C	0.10M	U T H		B2=1.45	1974RGa (33157)	901
45 C: B2=1.08; DH=-33.3 kJ mol ⁻¹									

C4H8O2		HL					CAS 107-92-6	(1118)	
n-Butanoic acid; CH3.CH2.CH2.COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	oth	NaClO4	25°C	2.0M	U		K1=2.11	1990FTa (33342)	902
Methods: averaged results from potentiometric, polarographic and spectrophotometric measurements.									
Pb++	ISE	NaClO4	25°C	0.50M	U I		K1=2.11	1975SAe (33343)	903
Pb++	EMF	NaClO4	25°C	2.00M	U		K1=2.17 B2=3.69 B3=4.55	1970FMa (33344)	904
Pb++	vlt	NaClO4	25°C	2.00M	U		K1=2.08 B2=3.78 B3=3.70 B4=4.43	1968FPa (33345)	905

C4H8O2S		HL					CAS 623-51-8	(4265)	
Ethyl-2-mercaptoacetate; HS.CH2.CO2.C2H5									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	NaClO4	20°C	0.50M	U T		K1=1.87 B2=4.39 B3=6.40	1972SCc (33365)	906
K1(30 C)=2.03, B2(30 C)=4.47, B3(30 C)=6.83									
Pb++	vlt	NaNO3	25°C	1.00M	U		B2=11.48	1972TBc (33366)	907
Pb++	vlt	alc/w	20°C	40%	U T		K1=1.89 B2=4.39 B3=6.76	1971SCe (33367)	908
Medium: 40% EtOH, 0.5 M NaClO4. 30 C: K1=2.0, B2=4.47, B3=6.83									

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	1.00M	U		K1=1.72 B2=2.83	1971SAa (33411)	909
Pb++	gl	diox/w	30°C	50%	U		K1=3.97 B2=6.87	1956IFa (33412)	910

C4H8O3		HL					CAS 594-61-6	(81)	
2-Hydroxy-2-methylpropanoic acid; (CH3)2C(OH).COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	EMF	NaClO4	25°C	1.0M	U		K1=2.03 K3=0.2	B2=3.20 1967TGa (33502)	911

Method: quinhydrone electrode

Pb++	EMF	NaClO4	25°C	3.0M	U		K1=2.23 B3=3.29	B2=3.23 1966WBa (33503)	912
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 C4H8O3 HL CAS 965-70-8 (423)
 2-Hydroxybutanoic acid; CH3.CH2.CH(OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	oth	NaClO4	25°C	2.0M	U		K1=2.12	1990FTa (33582)	913

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

Pb++	EMF	NaClO4	25°C	2.00M	U		K1=2.16 B3=4.03	B2=3.32 1978MMg (33583)	914
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Pb++	vlt	NaClO4	25°C	2.00M	U		K1=2.10 B3=3.57	B2=2.78 1973NPa (33584)	915
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Pb++	EMF	NaClO4	25°C	3.0M	U		K1=2.04 B3=2.7	B2=2.88 1966WBa (33585)	916
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 C4H8O3 HL CAS 300-85-6 (30)
 3-Hydroxybutanoic acid; CH3.CH(OH).CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	oth	NaClO4	25°C	2.0M	U		K1=2.13	1990FTa (33626)	917

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

Pb++	EMF	NaClO4	25°C	2.00M	U		K1=2.09 B3=3.81	B2=3.39 1978MMg (33627)	918
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Pb++	vlt	NaClO4	25°C	2.00M	U		K1=2.17 B3=3.70	B2=3.00 1973NPa (33628)	919
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 C4H8O3 HL CAS 591-81-1 (39)
 4-Hydroxybutanoic acid; HO.CH2.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	EMF	NaClO4	25°C	2.00M	U		K1=2.08 B3=3.81	B2=3.54 1978MMg (33656)	920

Pb++ vlt NaClO4 25°C 2.00M U K1=2.28 B2=3.15 1973NPa (33657) 921
B3=3.64

C4H8O3 HL Ethoxyacetic ac CAS 627-03-2 (2996)
Ethoxyacetic acid; C2H5.O.CH2.COOH

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

Pb++ vlt NaClO4 25°C 1.0M C T H K1=1.90 B2= 2.50 1984PRb (33673) 922
B3=2.30
B4=2.86

Method: polarography. Medium pH 6.1. Also data for 15 C and 10% MeOH/H2O.
DH(K1)=20.5 kJ mol⁻¹, DH(B2)=36.1, DH(B3)=-72.8, DH(B4)=56.6.

Pb++ ISE NaClO4 25°C 1.00M U K1=1.72 B2=2.65 1970SAa (33674) 923
B3=2.66

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

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

Pb++ nmr alc/w 25°C 50% C K1=0.08 1980SSa (33740) 924

C4H9NO2 HL Aminoisobutyric CAS 144-90-1 (188)
2-Amino-2-methylpropanoic acid; H2N.C(CH3)2.COOH

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

Pb++ con NaClO4 25°C 3.00M U K1=5.16 1981MTa (33841) 925
B(PbHL)=11.88

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

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

Pb++ con NaClO4 25°C 3.00M U K1=5.04 1981MTa (33921) 926
B(PbHL)=11.47

Pb++ vlt NaClO4 25°C 0.40M U K1=4.6 B2=8.8 1979NSa (33922) 927
B3=12.5
B(Pb(OH)L)=11.9
B(Pb(OH)L2)=15.1
B(Pb(OH)2L)=15.5

C4H9NO2S HL CAS 88806-98-8 (3019)
2-Amino-3-mercaptopropanoic acid methyl ester, cysteine methyl ester;
HSCH2CH(NH2)COOCH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	U		K1=9.13 B2=15.29 B(PbHL)=11.97 B(PbH2L2)=26.36 B(PbHL2)=21.91 K(PbLOH+H)=7.8	1969PPd (34058)	928

Pb++	gl	KNO3	25°C	0.15M	U		K1=8.42	1955LMa (34059)	929
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C4H9NO2S HL Methylcysteine CAS 1187-84-4 (84)
2-Amino-3-methylmercaptopropanoic acid; H2N.CH(CH2.S.CH3)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	U		K1=4.43 B2=7.97	1964LMa (34100)	930

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KNO3	30°C	1.0M	C		K1=4.74 B2= 7.80	1989SCc (34318)	931

Method: polarography. Medium pH >5.6

C4H9N3O2 HL CAS 57-00-1 (8275)
Methylguanidoethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	NaClO4	25°C	0.10M	C		K1=0.42 B2= 2.38	1983SSf (34420)	932

Method: polarography.

C4H10N2O2 HL EDMA (2784)
Diaminoethane-N-ethanoic acid; H2N.CH2.CH2.NH.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	oth/un	25°C	0.20M	U	M	K1=8.23 K(PbL+Cl)=10.00	1970FUa (34593)	933

Medium: Na ethanoate

C4H10N2S L CAS 2489-77-2 (2568)
N,N,N'-Trimethylthiocarbamide; (CH3)2N.CS.NH.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	alc/w	25°C	80%	U	I	K1=0.58 B2=0.90 B3=2.23 B4=3.48	1976FFa (34633)	934

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

C4H10N₂S L (6998)
 N-(2-Propyl)thiocarbamide; (CH₃)₂CH.NH.CS.NH₂

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

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

C4H10O₂S₂ H₂L Dithiothreitol CAS 3483-12-3 (8164)
 Threo-2,3-Dihydroxy-1,4-dithiobutane

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KN03	25°C	0.10M	C		K1=13.89 B(PbH-1L2)=8.7	2001KLb (34697)	936

B(PbH-1L2) by spectrophotometry.

Pb++	gl	NaCl	37°C	0.15M	U		K1=12.243 B(PbH-1L)=2.391 B(PbH-1L2)=13.285 B(Pb3L4)=51.668	1991GFa (34698)	937
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C4H10O₃ L CAS 3068-00-6 (4257)
 Butan-1,2-4-triol; HO.CH₂.CH₂.CH(OH).CH₂(OH)

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

K(Pb(OH)₃+L)=0.45

Medium: NaOH

C4H10O₄ L Erythritol CAS 149-32-6 (2706)
 1,2,3,4-Tetrahydroxybutane; HO.CH₂.CH(OH).CH(OH).CH₂.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	NaClO ₄	25°C	1.00M	U	I		1968VIa (34713)	939

K(Pb(OH)₃+L)=1.93

Medium: 1.0 NaOH, K=1.62

C4H11NO L CAS 110-73-6 (900)
 2-(Ethylamino)ethanol; CH₃.CH₂.NH.CH₂.CH₂.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KN03	25°C	0.10M	U		K1=6.51 B2=8.15	1980AAa (34837)	940

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO ₃	25°C	0.5M	C		K1=4.56 B2= 8.75 B(PbH-1L)=-3.97	1998CCc (34851)	941

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	alc/w	25°C	20%	U	I	B2=9.04 B3=9.82	1964MSd (34962)	942

Medium: EtOH, 0.01 M NaClO₄. B2=8.70(0%), 9.50(40%), 9.52(60%), 10.0(80%), 12.40(100%); B3=9.00(0%), 11.52(94%), 13.56(100%); B4=0.91(0%)

C4H11NO₂ L CAS 115-69-5 (949)
2-Amino-2-methyl-1,3-propanediol; HO.CH₂.C(NH₂)(CH₃).CH₂.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO ₃	25°C	0.5M	C		K1=3.86 B2= 7.28 B(PbH-1L)=-4.07	1998CCc (34983)	943

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO ₃	25°C	0.10M	C		K1=<2.7 K(Pb(ATP)+L)=2.09	1979FHa (35061)	944

Pb++	vlt	NaClO ₄	25°C	2.00M	U		B2=5.22	1975BMb (35062)	945
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Pb++	ISE	oth/un	25°C	1.00M	U		K(Pb(OH) ₃ +L)=0.20	1970VIa (35063)	946
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Medium: 1.0 M NaOH

C4H11NS HL CAS 108-02-1 (1792)
1-Mercapto-2-(N,N-dimethyl)aminoethane; HS.CH₂.CH₂.N(CH₃)₂

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO ₃	20°C	0.25M	U	I	K1=7.50 B2=14.48 0.25 KNO ₃ , 25% MeOH: K1=7.74, K2=7.28; 25% EtOH, K1=8.24, K2=7.68	1973MSd (35138)	947

Pb++	vlt	KNO ₃	26°C	0.25M	U		K1=0.85 B2=1.71	1972PMb (35139)	948
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B3=1.90

pH 4.4 buffer

C4H110PS2 HL CAS 995-79-9 (4283)

O-Ethyl hydrogen P-ethylphosphonodithioate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	vlt	alc/w	?	90%	U		K1=11.1	1971TCa (35207)	949
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Medium: 90% EtOH, 0.15 M NaClO4

C4H1102PS2 H3L CAS 298-06-6 (210)

O,O'-Diethyldithiophosphoric acid; (C2H5O)2P(S)SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	vlt	mixed	RT	50%	C		B2=7.38	1986HSd (35234)	950
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B3=9.64

B4=10.44

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

Pb++	vlt	alc/w	?	90%	U		B2=10.2	1971TCa (35235)	951
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Medium: 90% EtOH, 0.15 M NaClO4

Pb++	vlt	alc/w	25°C	90%	U I		B2=10.53	1967SFb (35236)	952
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Medium: 90% EtOH, 0.12 M LiNO3. B2=7.98(50%),8.56(60%),9.04(70%),9.81(80%)

C4H1104P H2L (5867)

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	NaNO3	25°C	0.10M	M		K1=3.27	1999DSa (35288)	953
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C4H11PS2 HL CAS 886-54-6 (3591)

Diethylphosphinodithioic acid; (CH3.CH2)2PSSH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	vlt	alc/w	?	90%	U		B2=11.7	1971TCa (35296)	954
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Medium: 90% EtOH, 0.15 M NaClO4

C4H12N2 L CAS 563-86-0 (59)

DL-2,3-Diaminobutane; H2N.CH(CH3).CH(CH3).NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	KNO3	25°C	0.10M	U		K1=5.35 B2=10.4	1977PSb (35381)	955
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C4H12N2 L Butanediamine CAS 20759-15-3 (58)

meso-2,3-Diaminobutane; H2N.CH(CH3).CH(CH3).NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	U			K1=5.45 B2=10.2	1977PSb (35491)	956

C4H12N2O		L						CAS 2752-17-2	(312)	
Bis-(2-aminoethyl)ether; H2N.CH2.CH2.O.CH2.CH2.NH2										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	U			K1=6.10	1986TSa (35508)	957

C4H12N2O		L						CAS 111-41-1	(648)	
N-(2-Hydroxyethyl)diaminoethane, 1,4-Diaza-7-oxaheptane; H2N.CH2.CH2.NH.CH2.CH2.OH										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	U			K1=5.58	1986TSa (35548)	958

C4H13N3		L				Dien		CAS 111-40-0	(584)	
1,4,7-Triazaheptane, 2,2'Iminobis(ethylamine), diethylenetriamine; NH2.(CH2)2.NH.(CH2)2.NH2										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	U			K1=7.56	1985MMA (35801)	959

Pb++	vlt	NaClO4	25°C	0.20M	M	H		K1=7.4	1978KKb (35802)	960
DH1=-35.6 kJ mol-1										

Pb++	vlt	KNO3	25°C	0.20M	U			B2=10.39	1974K0d (35803)	961

Pb++	vlt	alc/w	25°C	80%	U	I		K1=10.25 B2=12.33	1969IMA (35804)	962
Medium: 0-93.5% EtOH, 0.1 M LiNO3. 0%, K1=8.50, B2=10.47. 40%, K1=9.41, B2=11.45, 60%, K1=9.87, B2=11.62. 93.5%, B2=12.34										

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

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

C5H4N4S		HL						6-Purinethiol CAS 6112-76-1	(115)	
6-Mercaptopurine, 6-Thiohypoxanthine;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	diox/w	25°C	50%	U			K1=6.61	1959CFb (36228)	964

C5H4O2S HL 2-Thenoic acid CAS 527-72-0 (2312)
Thiophene-2-carboxylic acid; C4H3S.CO0H

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

Pb++ gl NaCl04 30°C 0.20M U T H K1=2.03 1976SSd (36262) 965

C5H5NO2 HL CAS 16867-04-2 (2316)
2,3-Dihydroxypyridine, 3-Hydroxypyridin-2(1H)-one; C5H3N(OH)2

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

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

Medium: 50% dioxan, 0.1 M NaCl04

C5H5NO2 HL CAS 35940-93-3 (3618)
3-Furancarboxaldehyde oxime (3-Furfuraldoxime); C4H3O.CH(:N.OH)

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

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

Medium: 75% dioxan, 0.104 M NaCl04. K1=7.67?(25 C), 6.59(35 C);K2=9.96(25 C)

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

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

Pb++ gl oth/un 25°C 0.01M U T K1=4.80 B2=8.12 1970Gwa (37215) 968

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

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

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

Pb++ gl oth/un 26°C 0.01M U T K1=4.69 B2=7.95 1970Gwa (37219) 969

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

C5H6O4 H2L Citraconic acid CAS 498-23-7 (3021)
Citraconic acid; CH3.C(COOH):CH.CO0H

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

Pb++ vlt KNO3 RT 1.0M C M K1=1.95 B2= 2.00 1983CPd (37366) 970

B3=3.70

B(PbAL)=2.88

B(PbAL2)=4.08

B(PbA2L)=3.43

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

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

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

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

Method: polarography. HA is acetylsalicylic acid.

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

C₅H₆O₄ H₂L Itaconic acid CAS 97-65-4 (398)
Methylenesuccinic acid; HOOC.CH₂.C(:CH₂).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ vlt KNO₃ 25°C 1.0M C M K1=2.17 B2= 3.30 1983CPe (37437) 974
B3=5.30

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

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

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

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

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

C₅H₆O₇ H₃L (8107)
Carboxymethyltartronic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ gl KCl 25°C 0.10M C K1=6.04 1984MMg (37491) 978
K(PbL+H)=2.02

C₅H₇N₄S₂ H₃L CAS 36061-59-3 (1953)
Bis(carboxymethyl)dithiocarbamic acid; (HOOC.CH₂)₂.N.CSSH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ EMF KNO₃ 22°C 1.00M U K1=7.42 B2=13.66 1970TPb (37558) 979

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

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

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

 Pb++ nmr non-aq 25°C 100% U M 1980MCb (37587) 981
 K(Pb(NO3)2+L)=1.3

Medium: DMSO-d6

 C5H8N2 L Di-Me-Pyrazole CAS 67-51-6 (369)
 3,5-Dimethyl-1,2-diazole; C3H2N2(CH3)2

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

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

 C5H8O2 HL Acetylacetone CAS 123-54-6 (164)
 Pentane-2,4-dione; CH3.CO.CH2.CO.CH3

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

 Pb++ vlt NaClO4 25°C 0.10M C K1=4.69 B2= 9.08 1984KCb (38052) 983
 Method: polarography. Medium pH 9.2

 Pb++ gl diox/w 24°C 50% U K1=5.5 1979ACa (38053) 984

 Pb++ vlt KNO3 30°C 0.70M U B2=6.32 1962SSa (38054) 985

 Pb++ gl diox/w 30°C 75% U K1=8.60 B2=15.37 1953UFb (38055) 986

C5H8O2S HL CAS 19418-11-2 (408)
 Tetrahydrothiophene-2-carboxylic acid; C4H7S.COOH

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

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

 C5H8O3 HL Laevulinic acid CAS 123-76-2 (941)
 4-Ketopentanoic acid; CH3.CO.CH2.CH2.CO.OH

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

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

 C5H8O4 H2L Glutaric acid CAS 110-94-1 (420)
 Pentanedioic acid; HOOC.CH2.CH2.CH2.CO.OH

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

Pb++ vlt KNO3 30°C 2.0M C M K1=2.30 B2= 3.47 1977BCa (38341) 989
 B3=3.90
 B(PbAL)=3.57
 B(PbA2L)=4.49
 B(PbAL2)=4.22

Method: polarography. Medium pH 6.8. K(PbA+L)=1.21, K(PbL+A)=1.27.

H2A is succinic acid.

Pb++ ISE NaClO4 25°C 1.00M C K1=2.51 B2=3.77 1977HOa (38342) 990
 B(1,1,1)=6.93
 B(2,1,2)=12.92
 B(1,1,2)=8.72

B(p,q,r): pH+qPb+rL=HpPbqLr

Pb++ ISE NaClO4 25°C 0.50M U K1=2.80 1972NAa (38343) 991

Pb++ vlt NaClO4 30°C 2.00M U K1=2.48 B2=3.45 1968GPb (38344) 992
 B3=3.90

Pb++ gl oth/un 25°C 0.10M U K1=2.8 1960YYa (38345) 993

C5H8O4S H2L CAS 36303-63-6 (988)

3-Thiahexane-1,6-dioic acid; HOOC.CH2.S.CH2.CH2.COOH

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

Pb++ gl KNO3 25°C 0.10M C K1=3.59 1975LPa (38383) 994
 K(Pb+HL)=2.01

C5H8O4S2 H2L CAS 2068-24-8 (908)

2,2'-(Methylenebis(thio))bis-ethanoic acid; HOOC.CH2.S.CH2.S.CH2.COOH

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

Pb++ gl oth/un 20°C ? U T K1=3.02 B2=5.62 1984SPa (38396) 995
 Temperatures: 30,40. DH(B2)=-94.5 kJ mol⁻¹, DS=-177.3 J K⁻¹ mol⁻¹

C5H8O4S2 H4L (4319)

Dimercaptoglutaric acid; HOOC.CH2.C(SH)2.CH2.COOH

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

Pb++ sp NaClO4 20°C 0.01M U K1=15.88 1973ENa (38398) 996
 K(2Pb+L)=25.00

C5H8O7 H2L CAS 40120-71-6 (3022)

2,3,4-Trihydroxypentanedioic acid, Trihydroxyglutaric acid; HOOC.(CH(OH))3.COOH

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

Pb++ EMF oth/un 22°C ? U K1=3.28 1969PDb (38434) 997

C5H9NO3 HL Hydroxyproline CAS 51-35-4 (416)
 4-Hydroxy-2-pyrrolidinecarboxylic acid; C4H7N(OH)(COOH)

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

Pb++ gl none 25°C 0.0 U K1=4.81 B2=8.51 1978HAa (38745) 998

C5H9NO3S H2L Thiopronin CAS 1953-02-2 (2162)
 N-2-Mercaptopropanoyl-glycine; CH3.CH(SH).CO.NH.CH2.COOH

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

Pb++ gl NaCl 37°C 0.15M C K1=6.726 B2=11.527 1985FWa (38786) 999
 B(PbHL)=9.854
 B(Pb2L3)=20.846
 B3=14.379

C5H9NO4 H2L Glutamic acid CAS 56-86-0 (22)
 2-Aminopentanedioic acid; H2N.CH(CH2.CH2.COOH)COOH

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

Pb++ gl KNO3 25°C 0.10M C M K1=4.39 2003AHa (39108)1000
 K(PbL+A)=3.33

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

 Pb++ vlt KNO3 25°C 0.10M U K1=5.11 B2= 7.91 1996CSa (39109)1001
 Method: anodic stripping voltammetry.

 Pb++ EMF NaCl04 25°C 1.00M C K1=4.60 B2=6.80 1989BFa (39110)1002
 B(PbHL)=11.49
 B(PbH2L)=14.36
 B(PbHL2)=15.18
 B(PbH2L2)=22.20.
 Method: Pb/Hg electrode. B(PbH3L2)=26.0, B(PbH4L2)=29.80.

 Pb++ vlt NaCl04 25°C 0.70M C K1=4.51 B2= 8.13 1986CSa (39111)1003
 Method: differential pulse polarography.

 Pb++ ISE KNO3 25°C 0.10M U K1=5.57 B2=7.75 1985DVa (39112)1004
 K(PbL+H)=7.65
 K(Pb(OH)L+H)=8.25

 Pb++ vlt NaCl04 25°C 0.10M C K1=2.13 B2= 3.61 1980SKd (39113)1005
 Method: polarography.

 Pb++ vlt NaCl04 25°C 0.30M U K1=5.70 B2=8.55 1974K0c (39114)1006

Pb++ vlt KNO3 30°C 1.0M U K1=4.60 B2=6.22 1964RSe (39115)1007

C5H9NO4 H2L MIDA CAS 4408-64-4 (190)

N-Methyliminodiethanoic acid; CH3.N(CH2.COOH)2

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

Pb++ ISE NaCl04 25°C 0.50M C K1=7.60 1985NAa (39272)1008
B(PbHL)=11.23

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

Pb++ vlt NaCl04 25°C 0.10M U K1=8.0 B2=11.5 1969VPa (39274)1010

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

Pb++ gl KNO3 20°C 0.10M U K1=8.02 B2=12.12 1945SKa (39276)1012
K(PbL(OH)2+H=PbLOH)=9.03

C5H9NS2 HL CAS 25769-03-3 (3623)

Pyrrolidine-N-carboxydithioic acid; C4H8N-CSSH

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

Pb++ vlt KNO3 25°C 0.10M U B2=17.2 1991BSe (39334)1013

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

Pb++ vlt KCl 25°C 1.00M U B2=17.1 1973SSa (39336)1015

C5H9N3S HL (1822)

2-Mercaptohistamine;

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

Pb++ gl NaCl04 25°C 0.10M U K1=8.66 B2=13.97 1977STc (39610)1016

C5H10NO7P H4L PMIDA CAS 5994-61-6 (2433)

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

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

Pb++ oth KNO3 RT 0.10M C K1=>16 1980MVA (39683)1017

Method: paper electrophesis.

C5H10N2O2 HL CAS 2762-32-5 (3041)

Piperazine-2-carboxylic acid; C4H9N2.COOH

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

Pb++ gl KCl 22°C 0.10M U K1=6 1960REb (39724)1018

C5H10N2O3 HL Glutamine CAS 56-85-9 (18)
 2-Aminopentanedioic acid 5-amide; H2N.CH(CH2.CH2.CO.NH2)COOH

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

Pb++ gl NaClO4 25°C 3.00M U K1=4.70 B2=8.36 1973CTb (39829)1019
 B3=10.12

Pb++ vlt oth/un 25°C 0.60M U 1969LCa (39830)1020
 K(Pb+2HL+OH)=10.16

 C5H10O5S2 HL CAS 110-50-9 (591)
 (Butoxy)dithiomethanoic acid; CH3.CH2.CH2.CH2O.CSSH

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

Pb++ dis oth/un 25°C 0.25M U B2=12.5 1982SAa (40162)1021

 C5H10O2 HL Pivalic acid CAS 75-98-9 (3026)
 Trimethylethanoic acid, 2,2-Dimethylpropanoic acid; (CH3)3C.COOH

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

Pb++ nmr NaNO3 25°C 0.40M U K1=2.60 1983NRa (40218)1022
 Method: 207Pb nmr.

 C5H10O2S HL CAS 7244-82-8 (3042)
 3-Ethylthiopropoic acid; CH3.CH2.S.CH2.CH2.COOH

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

Pb++ gl diox/w 30°C 50% U K1=4.34 B2=7.91 1956IFa (40243)1023

 C5H10O5 L D-Xylose CAS 58-86-6 (3607)
 D-Xylose;

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

Pb++ cal oth/un 22°C var C H K1=1.60 1999MGa (40363)1024
 DH(K1)=-2.2 kJ mol-1, DS(K1)=23 J K-1 mol-1.

 C5H10O5 L L-Arabinose CAS 5328-37-0 (1616)
 L-Arabinose

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

Pb++ ISE NaClO4 25°C 1.00M C I K1=-0.42 1977EOa (40371)1025

Data also for D-Xylose and D-Ribose

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

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	vlt	NaClO4	25°C	1.0M	C			K1=4.57 B2= 7.45 K(Pb+HL)=0.99 K(Pb+2HL)=1.45 K(Pb+HL+L)=4.52	1996MSa	(40738)1026

Method: polarography.

Pb++	vlt	KNO3	30°C	1.0M	C			K1=4.50 B2= 7.90	1989SCc	(40739)1027
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Method: polarography. Medium pH >5.6

Pb++	oth	NaClO4	35°C	0.10M	C	M T		K1=5.10 B2=8.40	1986SRb	(40740)1028
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Exp. method: paper electrophoresis. Data also for NTA ternary complexes

Pb++	vlt	KNO3	30°C	1.0M	U			K1=4.02 B2=5.89 B(PbL2(OH))=9.41	1964RSe	(40741)1029
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C5H11NO2S HL Methionine CAS 63-68-3 (42)

2-Amino-4-(methylthio)butanoic acid; H₂N.CH(CH₂.CH₂.S.CH₃)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	U			K1=4.38 B2=8.62	1964LMa	(41113)1030

Pb++	gl	KNO3	25°C	0.15M	U			K1=4.40	1955LMa	(41114)1031
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C5H11NO2S HL CAS 93964-73-9 (3633)

Cysteine ethyl ester; H₂N.CH(CH₂.SH).CO.OCH₂.CH₃

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	EMF	oth/un	?	dil	U			K1=9.48	1966TYa	(41147)1032

C5H11NO2S H2L D-Penicillamine CAS 52-67-5 (1323)

D-2-Amino-3-mercapto-3-methylbutanoic acid; (CH₃)₂C(SH)CH(NH₂)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	KCl	25°C	0.10M	M			K1=13.12 B2=17.7 B(PbHL)=15.87 B(PbHL2)=26.19	1987HLA	(41191)1033

C5H11NO2S H2L Penicillamine CAS 52-66-4 (350)

DL-2-Amino-3-mercapto-3-methylbutanoic acid; (CH₃)₂C(SH)CH(NH₂)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KN03	32°C	0.0	U		K(Pb+H2L=PbL+2H)=-5.68 K(Pb+2H2L=PbL2+4H)=-19.48	1992BKf (41273)	1034
Medium: 0.005 M KN03									
Pb++	gl	NaCl	37°C	0.15M	C		K1=13.06 B(PbHL)=16.28 B(PbH-1L)=7.33	1983WWa (41274)	1035
Pb++	gl	NaCl04	25°C	3.00M	C		K1=14.32 B2=19.05 B(PbHL)=17.72 B(PbHL2)=27.98 B(PbH2L2)=34.04 B(PbH-1L2)=7.55	1976Cwa (41275)	1036
Pb++	gl	KN03	25°C	0.10M	U		K1=12.37	1964Lma (41276)	1037
Pb++	gl	KN03	25°C	0.15M	U		K1=13.0 B2=17.30	1962KRa (41277)	1038

C5H11NO2S		HL		CAS 2629-59-6		(2461)			
S-Ethyl-L-cysteine; H2N.CH(CH2.S.C2H5).COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaCl04	25°C	1.0M	C		K1=4.80 B2= 7.43 B(PbHL)=10.00 B(PbH-1L)=-3.77	1981SBd (41295)	1039

C5H11NS2		HL		CAS 147-84-2		(2126)			
Diethyldithiocarbamic acid; (CH3.CH2)2N.CSSH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KN03	25°C	0.10M	U		B2=17.7	1991BSe (41359)	1040
Also data for n-Pr(K1=19.7), i-Pr(19.7), n-Bu(21.3), i-Bu(21.4), n-Pe(23.1) pyrrolidine(17.2), piperidyl(20), cyclo-Hexyl(25),n-Hex(24.8) substd.ligands									
Pb++	EMF	non-aq	25°C	100%	U		B2=14.9	1987USa (41360)	1041
Medium: DMF, 0.1 M LiCl04									
Pb++	ISE	non-aq	25°C	100%	U		K1=8.3 B2=15.9	1984LSb (41361)	1042
Medium: DMSO, 0.1 M NaCl04; Ag-electrode. In MeOH: K1=8.7, B2=15.4									
Pb++	dis	oth/un	25°C	0.01M	U		B2=18.3	1973SSa (41362)	1043
Pb++	vlt	KCl	25°C	1.00M	U		B2=17.7	1973SSa (41363)	1044
Pb++	EMF	alc/w	25°C	75%	U		K1=3.85 B2=7.89	1971BSg (41364)	1045

Medium: 75% EtOH, 0.01 M KNO₃

Pb++ sp non-aq ? 100% U M 1968SRg (41365)1046
K(Pb(HA)₂+2HL=PbL₂+2H₂A)=4.98

Medium: CCl₄. H₂A=dithizone

C5H₁₁O₈P H₂L Ribose-5-phosph CAS 4300-28-1 (2756)
Ribose-5-phosphoric acid, Ribofuranoside 5 Phosphoric acid;

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

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

C5H₁₂N₂O₂ HL Ornithine CAS 1069-31-4 (46)
2,5-Diaminopentanoic acid; H₂N.CH₂.CH₂.CH₂.CH(NH₂)COOH

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

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

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

Pb++ vlt NaClO₄ 30°C 0.10M C T H K₁=3.0 B₂= 4.74 1981SBf (41581)1049
B₃=6.36
B₄=7.57

Method: polarography. At 40 C, K₁=3.0, B₂=4.60, B₃=6.20, B₄=7.57.

DH(K₁)=0 kJ mol⁻¹, DH(B₂)=-24.9, DH(B₃)=-28.4, DH(B₄)=5.48.

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

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

Pb++ ISE alc/w 25°C 80% U I K₁=1.00 B₂=1.18 1976FFa (41624)1050
B₃=3.11
B₄=3.90

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

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

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

Pb++ sp NaClO₄ 25°C 1.00M U K₁=0.66 1979FFa (41632)1051

Pb++ ISE alc/w 25°C 80% U I K₁=1.04 B₂=1.92 1976FFa (41633)1052

B3=3.15

B4=4.47

B5=4.47

B6=4.90

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

C5H12O3 L CAS 14697-46-2 (4300)

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

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

Pb++ ISE oth/un 25°C 1.00M U M 1968VIa (41647)1053

K(Pb(OH)₃+L)=0.40

Medium: NaOH

C5H12O3S4 H3L CAS 19872-38-9 (4331)

2,3-Dimercaptopropylthioethanesulfonic acid;

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

Pb++ EMF KNO₃ 20°C 0.10M U K1=16.25 B2=20.85 1968PRc (41658)1054

C5H12O4S3 H3L CAS 19872-36-7 (4332)

2,3-Dimercaptopropanoxyethanesulfonic acid; HS.CH₂.CH(SH).CH₂.O.CH₂.CH₂.HSO₃

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

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

C5H12O5S4 H3L CAS 35617-14-2 (4333)

2,3-Dimercaptopropanesulfonethanesulfonic acid; HS.CH₂.CH(SH).CH₂.SO₂.CH₂CH₂.HSO₃

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

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

C5H14NO3P H2L CAS 72696-97-0 (1990)

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

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

Pb++ gl KNO₃ 25°C 0.10M C K1=7.45 1997CCb (41833)1057

B(PbHL)=14.81

B(PbH-1L)=-0.49

C6HOC15 HL CAS 87-86-5 (506)

Pentachlorophenol; HO.C₆.Cl₅

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

Pb++ sp none 25°C 0.0 C K1=2.8 1997DFc (42026)1058
Self medium. K1 calculated for I=0.

C6H3OCl3 HL CAS 88-06-2 (508)
2,4,6-Trichlorophenol; HO.C6H2(Cl)3

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

Pb++ ISE none 25°C 0.0 M K1=3.0 1997DFc (42163)1059
Method: Cd ion selective electrode. Self medium. K1 calculated for I=0.
By spectrophotometry, K1=3.1.

C6H4NO2Cl HL CAS 39825-15-5 (3709)
4-Chloro-2-nitrosophenol; HO.C6H3.(2-N:O)(4-Cl)

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

Pb++ gl diox/w 25°C 50% U K1=4.59 1961SHa (42178)1060
Medium: 50% dioxan, 0.1 M KNO3

C6H4O4 H2L CAS 615-94-1 (1280)
2,5-Dihydroxy-1,4-benzoquinone;

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

Pb++ gl KCl 30°C 25% M TIH K1=5.15 B2= 8.27 1991GDe (42309)1061
Medium: 35% Dioxan/H2O, 0.1 M NaClO4. Other solvents and backgroundf concs.

C6H5NO2 HL Picolinic acid CAS 98-98-6 (391)
2-Pyridine-carboxylic acid; C5H4N.CO0H

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

Pb++ vlt KNO3 25°C 0.50M U K1=4.49 K2=7.58 1998CLa (42579)1062
B3=9.59
K(Pb+OH+2L)=11.46

Method:differential pulse polarography.

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

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

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

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

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

C6H5NO2 HL Nicotinic acid CAS 59-67-6 (419)
 3-Pyridine-carboxylic acid; C5H4N.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KNO3	RT	1.0M	C		K1=1.24 B2= 2.61	1983CPd (42680)	1068
Method: polarography. Medium: 1.0 M KNO3, pH 6.5.									
Pb++	vlt	KNO3	25°C	1.0M	C		K1=1.24 B2= 2.32	1983CPe (42681)	1069
Method: polarography.									
Pb++	vlt	NaClO4	30°C	1.0M	C		K1=1.24 B2= 2.61	1978BPc (42682)	1070
Method: polarography.									

C6H6NO6P H2L CAS 330-13-2 (5865)
 4-Nitrophenylphosphoric acid; NO2.C6H4.O.PO.(OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	M		K1=2.36	1999DSa (43249)	1071

C6H6N2O2 HL Aminonicotinic CAS 5345-47-1 (903)
 2-Aminopyridine-3-carboxylic acid; H2N.C5H4N.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	35°C	0.15M	U T H		K1=2.97	1980SKb (43356)	1072
Temperature range is 25-45C. At 35C, DH1=-6.36 kJ mol-1; DS1=36.32 J mol-1 K-1									

Pb++	gl	diox/w	35°C	50%	U		K1=3.56	1980SKb (43357)	1073
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C6H6O3 HL Maltol CAS 118-71-8 (2442)
 3-Hydroxy-2-methyl-4H-pyran-4-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	30°C	50%	U		K1=9.67 B2=16.10	1957Cwa (44097)	1074

C6H6O8S2 H4L Tiron CAS 149-45-1 (104)
 4,5-Dihydroxybenzene-1,3-disulfonic acid; (HO)2.C6H2(SO3H)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	1.00M	U		K1=12.24 B2=19.23	1981KMa (44479)	1075
Pb++	gl	NaClO4	25°C	1.0M	U		K1=11.95 B2=18.28	1960NAf (44480)	1076
Pb++	gl	oth/un	25°C	0.0	U		K1=14.77	1959NAa (44481)	1077

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	vlt	NaNO3	25°C	2.00M	U	M	K1=1.50 B(PbLA)=3.24 B(PbLA2)=3.30	1985KSd (44612)	1078
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H2A=maleic acid

C6H7N L beta-Picoline CAS 108-99-6 (324)
3-Methylpyridine; C5H4N.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	vlt	NaNO3	25°C	2.00M	U	M	K1=0.90 B2=1.85 B(PbLA)=3.40 B(PbL2A)=3.70 B(PbLA2)=3.42	1985KSd (44704)	1079
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H2A=maleic acid

C6H7N L gamma-Picoline CAS 108-89-4 (325)
4-Methylpyridine; C5H4N.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	vlt	NaNO3	25°C	2.00M	U	M	K1=1.56 B(PbLA)=3.00 B(PbLA2)=3.30	1985KSd (44830)	1080
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H2A=maleic acid

C6H7NO HL 2-Aminophenol CAS 95-55-6 (2868)
2-Amino-1-hydroxybenzene; HO.C6H4.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	diox/w	25°C	50%	U		K1=6.29 B2=10.34	1952FCa (44936)	1081
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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
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Pb++	gl	KNO3	37°C	0.15M	C		K1=8.44 B2=13.57 K(PbL+H)=2.3	1979SPd (45043)	1082
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C6H7NS HL CAS 137-07-5 (3098)
2-Aminothiophenol (o-aminothiophenol); H2N.C6H4.SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++ gl diox/w 25°C 50% U K1=8.41 B2=15.37 1952FCa (45088)1083

C6H7O4P H2L CAS 701-64-4 (5866)
Phenyl phosphoric acid; C6H5O.PO(OH)2

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

Pb++ gl NaNO3 25°C 0.10M M K1=2.84 1999DSa (45233)1084

C6H8N2O3S HL CAS 20349-92-2 (4399)
d-Tetranorbiotin;

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

Pb++ gl oth/un 26°C 0.01M U T K1=5.01 B2=8.92 1970Gwa (45407)1085
I=0.006. K1(35 C)=5.01, K1(45 C)=4.81, K2(35 C)=4.54, K2(45 C)=4.18

C6H8O4Se H2L (3691)
cis-Tetrahydroselenophene-2,5-dicarboxylic acid; C4H6Se(COOH)2

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

Pb++ gl NaClO4 25°C 0.10M U K1=3.6 B2=6.80 1968SNa (45528)1086

C6H8O6 H3L 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

Pb++ ISE NaClO4 25°C 1.00M C K1=3.17 B2=4.70 1979AOa (45571)1087
B(0,2,2,)=8.68
B(1,1,1)=7.91
B(2,1,2)=14.70
B(2,1,1)=11.59

B(1,1,2)=9.96;B(3,1,2)=18.80; B(p,q,r): pH+qPb+rL=Hp(Pb)qLr

C6H8O7 H3L Citric acid CAS 77-92-9 (95)
2-Hydroxypropane-1,2,3-tricarboxylic acid; HOOCCH2.CH(OH)(COOH).CH2COOH

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

Pb++ vlt KNO3 25°C 0.10M U 1999KSb (46211)1088
K1eff=6.0

Method: ion transfer voltammetry at water/nitrobenzene interface.

Medium: 0.10 M LiNO3, pH 5.8

Pb++ vlt NaClO4 30°C 1.0M C K1=3.86 B2= 5.08 1988GMc (46212)1089
Method: polarography.

Pb++ vlt KNO3 25°C 1.0M C K1=4.285 B2= 5.56 1985DVb (46213)1090
Method: polarography.

Pb++ vlt NaNO3 25°C 2.00M U M K1=3.4 1985KSd (46214)1091
B(PbLpy)=3.9

Pb++ vlt NaNO3 25°C 2.0M U M K1=3.4 1985SSe (46215)1092
B(PbL(imidazole))=8.0

Pb++ oth oth/un 20°C 3.00M U K1=3.03 B2=3.95 1979FEa (46216)1093
Method: densimetry

Pb++ oth NaClO4 20°C 3.0M U K1=3.06 1979FEb (46217)1094
Method: densitometry

Pb++ ISE NaClO4 25°C 1.00M C K1=4.43 B2=5.92 1978EOa (46218)1095
B(PbHL)=8.16
B(PbH2L)=10.97
B(2,-1,2)=4.64
B(2,-2,2)=-2.81

Constants also for additional species

Pb++ gl NaClO4 25°C 0.10M U M K1=5.98 1974RMa (46219)1096

Pb++ ISE NaClO4 25°C 2.00M U K1=4.08 B2=6.06 1973BVa (46220)1097
B(PbHL)=8.15
B(PbH2L)=10.85
B(PbH2L2)=14.95
B(PbH4L2)=21.68

Pb++ ISE NaClO4 25°C 2.00M U 1973BVb (46221)1098
K(Pb(II)+L=Pb(II)L+OH)=-0.94
K(Pb(II)+2L=Pb(II)L2+OH)=-0.47
K(2Pb(II)+L=Pb(II)2L+3OH)=-0.7

Pb(II) = plumbite ion

Pb++ ISE NaClO4 25°C 3.0M U K1=4.34 B2=6.08 1963DGc (46222)1099
B3=6.97

Pb++ sol oth/un 20°C ? U T H K1=3.00 1959DMb (46223)1100
DH(K1)=-23.4 kJ mol⁻¹, DS=-21. K1=2.86(30 C)

Pb++ sol oth/un 25°C ? U 1957PAb (46224)1101
K(Pb3L2(s)+L+3OH=3PbH-1L)=11.4

Pb++ gl KNO3 ? 0.30M U 1957PPa (46225)1102
K(Pb+L=PbH-1L+H)=-1.1

Pb++ sol oth/un 35°C ? U 1957PPa (46226)1103
K(PbH-1L+H)=7.1

$$K(\text{PbH}-1\text{LOH}+\text{H})=9.5$$

Pb++	oth	oth/un	25°C	0.05M	U		1953SUB (46227)1104
						$K(\text{Pb}+\text{H3L}=\text{PbL}+2\text{H})=-2.11$	

Pb++	EMF	oth/un	25°C	?	U		1952SCa (46228)1105
						$K(\text{Pb}+\text{HL})=5.72$	

Pb++	ISE	oth/un	30°C	->0	U	K1=6.50	1942KEa (46229)1106
Alternative method: K1=5.74							

C6H9NO6	H3L	NTA	CAS 139-13-9	(191)
Nitritotriethanoic acid; N(CH ₂ .COOH) ₃				

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KCl	25°C	1.0M	U		K1=10.09	1990TKa (46959)1107	
Pb++	gl	KCl	25°C	1.0M	U		K1=9.36 B2=11.74 B3=13.49	1990TKa (46960)1108	
Pb++	vlt	KCl	25°C	0.30M	U		K1=12.35	1988HPa (46961)1109	
Pb++	oth	NaCl04	35°C	0.10M	C	M	K1=11.21	1986SRb (46962)1110	
Exp. method: paper electrophoresis. Data also for NTA ternary complexes									
Pb++	ISE	NaCl04	25°C	0.50M	C		K1=10.02 B(PbHL)=12.30	1985NAa (46963)1111	
Pb++	dis	NaCl04	35°C	0.10M	U	M	K1=11.21 K=(Pb(NTA)+Leu)=3.43	1985SRa (46964)1112	
Pb++	gl	KNO3	25°C	0.10M	U	T	K1=11.34	1983FSa (46965)1113	
Pb++	gl	KNO3	20°C	0.10M	C	R	K1=11.4 B2=12.8 K(Pb+HL)=4.0	1982ANa (46966)1114	
IUPAC evaluation. Only K1 recommended, other tentative									
Pb++	ISE	KNO3	25°C	0.10M	U	T	K1=11.56	1980Nwa (46967)1115	
Pb++	gl	NaCl04	25°C	0.10M	U	M T	K1=11.31	1974Rma (46968)1116	
Pb++	gl	NaCl04	25°C	0.10M	U	M	K(Pb+HL)=3.93 K(PbL+HPO4)=9.15 K(Pb+L+HPO4)=13.08	1974Rmb (46969)1117	
Pb++	gl	NaCl04	25°C	0.10M	U	M	K(Pb+HL)=3.93 K(PbHL+Fulvate)=5.09	1974Rmb (46970)1118	

K(Pb+HL+Fulvate)=9.02

Pb++ sp NaClO4 20°C 0.10M U I K1=11.83 1970KBa (46971)1119
K(Pb+HL)=3.99

I=1.0: K1=10.64, K(Pb+HL)=3.60

Pb++ vlt NaClO4 25°C 0.10M U K1=12.40 1969VPa (46972)1120

Pb++ gl KNO3 25°C 0.06M U M 1968HAa (46973)1121
K(PbL+Gly)=1.03
K(PbL+A)=1.55

A=ethylvalinate

Pb++ gl KNO3 25°C 0.08M U M 1968HAa (46974)1122
K(PbL+A)=1.55
K(PbL+Gly)=1.93

A=ethylvalinate

Pb++ gl NaClO4 25°C 0.10M U M 1968ICa (46975)1123
K(PbL+Arg)=1.58
K(PbL+Ser)=1.15

Pb++ nmr oth/un 28°C 0.60M U M 1967MEa (46976)1124
K(PbL+Zn=Pb+ZnL)=0.86

Pb++ dis NaClO4 20°C 0.10M U T K1=11.47 1963STc (46977)1125

Pb++ vlt KNO3 20°C 0.10M U T K1=11.39 1956SGa (46978)1126

Pb++ vlt KNO3 20°C 0.10M U T K1=11.39 1955SAa (46979)1127

Pb++ gl KCl 20°C 0.10M U K1=11.8 1951SFa (46980)1128

Pb++ vlt KCl ? 0.20M U K1=10.68 1950KKa (46981)1129

C6H9N3O2 HL Histidine CAS 71-00-1 (1)
2-Amino-3-(4'-imidazolyl)propanoic acid; H2N.CH(CH2.C3H3N2)COOH

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

Pb++ EMF NaCl 25°C 1.00M C I K1=4.89 B2=6.61 1992BCa (47594)1130
B(PbHL)=10.45
B(PbH2L)=15.42
B(PbHL2)=14.06
B(PbH2L2)=20.97

Method:Pb/Hg amalgam and glass electrodes. B(PbH3L2)=26.66, B(PbH4L2)=32.33
In 1 M NaClO4:K1=6.22, B2=8.01, B(PbHL)=10.66, B(PbH2L)=16.30, B(PbHL2)=15.6

Pb++ nmr NaNO3 25°C 0.40M U 1983NRa (47595)1131
K(Pb+HL)=1.04

Method: 207Pb nmr.

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

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

Ligand: D-His

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

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

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

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

C6H9N3O2S H2L Thiolhistidine CAS 13552-61-9 (5659)
1-Amino-2-(2-Mercaptoimidazole)-propionic acid;

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

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

C6H9O6P H3L CAS 4408-72-4 (7015)
Phosphinotriethanoic acid; P(CH2.COOH)3

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

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

Also data for 50% v/v dioxan/H2O

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

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

Pb++ gl alc/w 25°C 50% U K1=0.31 1978PBa (47689)1140

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

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

Pb++ gl KCl 22°C 0.10M U K1=6.4 1964PCa (47728)1141

C6H10N2O4 H2L (3104)

Piperazine-2,6-dicarboxylic acid;

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

C6H10N2O4		H2L					CAS 89601-09-2	(3102)	

trans-Piperazine-2,3-dicarboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KCl	22°C	0.10M	U		K1=7.3	1964PCa (47749)	1143

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

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C	M	K1=5.90 K(PbL+A)=3.40	2003AHa (47850)	1144

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

Pb++	gl	KNO3	25°C	0.10M	M	M	K1=5.89	1996AEa (47851)	1145
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Data for ternary complexes with dipicolinic acid

Pb++	vlt	KNO3	25°C	0.10M	U	T H	K1=8.70 B2=10.82	1992AZa (47852)	1146
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Pb++	gl	KCl	20°C	0.10M	U		K1=8.40 B2=10.64	1955SAa (47853)	1147
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C6H10O2S2 HL (1224)

1,2-Dithiolane-3-propanoic acid, Bisnorlipoic acid; C3H5S2.CH2CH2COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	25°C	50%	C		K1=3.42	1978SPa (47976)	1148

C6H10O4		H2L	Adipic acid				CAS 124-04-9	(401)	

1,6-Hexanedioic acid; HOOC.(CH2)4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KNO3	25°C	1.5M	C	M	K1=2.32 B2= 2.99 K3=0.54 K(PbL+en)=3.38 K(PbL2+en)=3.03 K(PbL(en)+en)=2.58	1986GVa (48080)	1149

Method: polarography.

Pb++	ISE	NaCl04	25°C	1.00M	C		K1=2.47 B2=3.77 B(1,1,1)=6.99	1977H0a (48081)	1150
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B(2,1,2)=13.05

B(1,1,2)=8.76

B(p,q,r): pH+qPb+rL=HpPbqLr

Pb++ vlt NaClO4 30°C 2.00M U K1=2.38 B2=3.20 1968GPb (48082)1151
B3=3.69

Pb++ gl oth/un 25°C 0.10M U K1=2.8 1960YYa (48083)1152

C6H10O4S H2L CAS 42715-54-8 (986)
2,2'-Thiodipropionic acid; HOOCH(CH3).SCH(CH3).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ gl KNO3 25°C 0.10M C K1=3.12 1975LPa (48127)1153
K(Pb+HL)=1.8

C6H10O4S H2L CAS 111-17-1 (139)
3,3'-Thiodipropionic acid; HOOCH2CH2SCH2CH2COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ gl KNO3 25°C 0.10M C K1=2.57 1975LPa (48189)1154
K(Pb+HL)=1.82

Pb++ vlt KNO3 30°C 1.20M U T K1=2.09 B2=2.28 1972RGr (48190)1155
B3=3.29
K1(40 C)=1.90, K1(50 C)=1.89, B2(40 C)=2.25, B2(50 C)=2.25, B3(40 C)=3.27,
B3(50 C)=3.25

Pb++ vlt mixed 30°C 20% U I K1=2.18 B2=2.72 1972RGr (48191)1156
B3=3.47
Medium: 20% HCON(CH3)2, 1.2 M KNO3. In 20% (CH3)2SO: K1=2.30, B2=2.69,
B3=3.44

Pb++ gl NaClO4 25°C 0.10M U K1=2.7 1968SKd (48192)1157

C6H10O4S2 H2L CAS 7244-02-2 (438)
1,2-Bis(carboxymethylthio)ethane; HOOCH2SCH2CH2SCH2COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ gl NaClO4 25°C 0.50M C K1=3.62 B2=6.30 1981NAd (48247)1158

Pb++ oth oth/un 25°C 0.10M U K1=3.8 1964PCa (48248)1159

C6H10O4S2 H4L CAS 5139-01-5 (4372)
2,5-Dimercaptoadipic acid; HOOCH(SH)CH2CH2CH(SH).COOH

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

Pb++ sp oth/un ? ? U K1=14.15 1973ENa (48255)1160
B(Pb2L)=23.84

C6H1004S2 H2L CAS 1119-62-6 (3697)
3,3'-Di(thiopropanoic acid); H00C.CH2.CH2.S.S.CH2.CH2.C00H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KNO3	30°C	1.0M	C		K1=1.65 B2= 2.87 B3=3.17 B4=5.06	1983SGf (48269)	1161

Method: polarography.

C6H1004Se H2L CAS 80030-00-8 (987)
2,2'-Selenodipropionic acid; H00C.CH(CH3).Se.CH(CH3).C00H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=2.80 K(Pb+HL)=1.7	1975LPa (48284)	1162

C6H1004Se H2L CAS 2168-88-9 (982)
3,3'-Selenodipropionic acid; H00C.CH2.CH2.Se.CH2.CH2.C00H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=2.58 K(Pb+HL)=1.95	1975LPa (48295)	1163

C6H1004Te H2L CAS 2168-91-4 (983)
3,3'-Tellurodipropionic acid; H00C.CH2.CH2.Te.CH2.CH2.C00H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=2.94 K(Pb+HL)=2.3	1975LPa (48306)	1164

C6H1005 H2L CAS 5961-83-1 (981)
3,3'-Oxodipropionic acid; H00C.CH2.CH2.O.CH2.CH2.C00H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=2.66 K(Pb+HL)=1.73	1975LPa (48315)	1165

C6H1007 HL Galacturonic CAS 685-73-4 (290)
D-Galacturonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++ cal oth/un 22°C var C H K1=1.18 1999MGa (48393)1166
DH(K1)=-4.6 kJ mol⁻¹, DS(K1)=7.1 J K⁻¹ mol⁻¹

Pb++ gl NaClO4 25°C 1.00M U K1=2.50 1990DGb (48394)1167
B3=6.30

Pb++ gl NaClO4 25°C 1.00M C K1=2.00 1977Mca (48395)1168

C6H10O7 HL Glucuronic acid CAS 6556-12-3 (599)
D-Glucuronic acid;

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

Pb++ gl NaClO4 25°C 1.00M C K1=1.62 1977Mca (48422)1169

C6H10O8 H2L Mucic acid CAS 526-99-8 (3650)
2,3,4,5-Tetrahydroxyhexanedioic acid, Galactaric acid; HOOC.(CHOH)4.COOH

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

Pb++ gl NaNO3 25°C 0.05M C K1=4.42 B2= 8.56 2002SFa (48439)1170
B(PbH-1L)=-4.40
B(PbH-2L)=-12.79
B(PbH-1L2)=-0.07
B(PbH-2L2)=-8.48

C6H11NO4 H2L Amino adipic CAS 542-32-5 (1259)
2-Amino hexanedioic acid; HOOC.CH2.CH2.CH2.CH(NH2).COOH

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

Pb++ gl NaClO4 25°C 1.0M C K1=5.12 B2=8.49 1982BMb (48582)1171
B(PbHL)=12.46
B(PbH-1L)=-3.53

C6H11NO4S H3L CAS 58033-48-5 (3124)
N-2-Mercaptoethyliminodiethanoic acid; HS.CH2.CH2.N(CH2.COOH)2

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

Pb++ gl KNO3 20°C 0.10M U K1=17.03 1955SAa (48614)1172

C6H11NO5 H2L HIMDA CAS 93-62-9 (192)
N-(2-Hydroxyethyl)iminodiethanoic acid; HO.CH2.CH2.N(CH2.COOH)2

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

Pb++ ISE NaClO4 25°C 0.50M C K1=8.75 1985NAa (48773)1173
B(PbHL)=11.51

Pb++	gl	KNO3	25°C	0.10M	U	K1=9.45	1983FSa (48774)	1174
Pb++	sp	NaClO4	20°C	0.10M	U	K1=9.48	1978KIb (48775)	1175
Pb++	vlt	NaNO3	25°C	0.30M	U	K1=9.10	1974KNc (48776)	1176
Pb++	oth	KNO3	20°C	0.10M	U	K1=10.2	B2=13.20	1965JMa (48777)1177
Method: electrophoresis								
Pb++	vlt	KNO3	25°C	0.10M	U	K1=9.51	1965VF	1178
Pb++	gl	KNO3	20°C	0.10M	U	K1=9.41	1955SAa (48779)	1179
						K(PbLOH+H)=8.25		
Pb++	gl	KCl	30°C	0.10M	U	K1=9.45	B2=13.62	1952CCa (48780)1180

C6H11NO5		H2L		(7174)				
N-Carboxymethylthreonine; H00CCH2NHCH(CH(OH)CH3)COOH								
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=8.00	2001MTb (48825)1181
							B(PbHL)=10.21	
							B(PbH-1L)=-1.12	

C6H11NS2		L		CAS 98-99-7 (3108)				
Piperidine-1-carbodithioic acid;								
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Pb++	dis	oth/un	25°C	0.01M	U		B2=16.9	1973SSa (48856)1182
Pb++	vlt	KCl	25°C	1.00M	U		B2=16.8	1973SSa (48857)1183

C6H11N3O4		HL		Gly-Gly-Gly		CAS 556-33-2 (415)		
Glycyl-glycyl-glycine; H2N.CH2.CO.NH.CH2.CO.NH.CH2.COOH								
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Pb++	gl	NaClO4	25°C	3.00M	C T H		K1=3.97	1976CWb (48983)1184
							B(PbHL)=10.62	
							B(PbH-1L)=-3.40	
DH(K1)=-15 kJ mol-1, DH(PbHL)=-27.5, DH(PbH-1L)=22, DS1=25.5, DS(PbHL)=111								
Pb++	gl	NaClO4	25°C	3.00M	U		K1=3.767	1975CMA (48984)1185
							B(PbHL)=10.403	
							B(PbH-1L)=-3.761	
Pb++	nmr	oth/un	25°C	0.80M	U		K1=3.00	1972RLb (48985)1186

$$K(\text{Pb+HL})=1.44$$

Medium: 0.8, 0.2 Pb(NO₃)₂

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

C6H12N2O4 H2L EDDA CAS 5657-17-0 (119)
1,2-Diaminoethane-N,N'-diethanoic acid; HOOC.CH₂.NH.CH₂.CH₂.NH.CH₂.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	KNO ₃	25°C	0.10M	U		K1=10.66	1979GMa (49261)	1188
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Pb++	vlt	NaClO ₄	25°C	0.30M	U		K1=10.43	1974K0c (49262)	1189
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Pb++	gl	NaNO ₃	25°C	0.10M	U		K1=11.71 B(PbHL)=15.60 B(PbH-1L)=12.27 B(Pb2L)=15.02	1974SJa (49263)	1190
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Pb++	vlt	NaClO ₄	25°C	0.20M	U		K1=11.2 B(PbL(OH))=13.6 B(PbL(OH) ₂)=15.2	1973NHb (49264)	1191
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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
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Pb++	gl	KCl	20°C	0.10M	U		K1=12.22 B2=15.12	1955SAa (49306)	1192
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C6H12O5S HL (691)
1-Thio-beta-D-glucopyranose;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	KNO ₃	25°C	0.15M	M		K1=6.03 B2=11.46 B3=15.08	1987GFa (49527)	1193
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C6H12O6 L D-Galactose CAS 59-23-4 (1559)
D-Galactose

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	cal	oth/un	22°C	var	C H		K1=1.30	1999MGa (49568)	1194
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DH(K1)=-2.4 kJ mol⁻¹, DS(K1)=17 J K⁻¹ mol⁻¹.

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++ cal oth/un 22°C var C H K1=1.08 1999MGa (49593)1195
 DH(K1)=-7.8 kJ mol⁻¹, DS(K1)=-5.5 J K⁻¹ mol⁻¹.

C6H12O7 HL Gluconic acid CAS 526-95-4 (904)
 D-Gluconic acid, 2,3,4,5,6-Pentahydroxyhexanoic acid; HO.CH₂(CHOH)₄.COOH

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

Pb++ gl NaNO₃ 25°C 0.10M C K1=2.49 1996ESa (49747)1196
 B(PbH-2L)=-11.78
 B(Pb2H-3L2)=-10.66

Pb++ EMF NaClO₄ 25°C 1.00M C 1978CVa (49748)1197
 K(Pb(OH)₃+L)=3.20
 K(2Pb(OH)₃+L-H)=5.45
 K(2Pb(OH)₃+2L-2H)=6.55

Pb++ gl NaClO₄ 25°C 1.0M U K1=2.13 B2=3.35 1978CVb (49749)1198

Pb++ vlt oth/un 25°C 0.10M U K1=2.6 1956PJa (49750)1199

C6H13NO₂ HL Leucine CAS 61-90-5 (47)
 2-Amino-4-methylpentanoic acid; H₂N.CH(CH₂.CH(CH₃)₂).COOH

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

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

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

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

Method - paper electrophoresis

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

C6H13NO₂ HL Norleucine CAS 616-06-8 (602)
 2-Aminohexanoic acid (2-Aminocaproic acid) CH₃.(CH₂)₃.CH(NH₂).COOH

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

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

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

C6H13NO₃ HL CAS 4383-88-4 (1895)
 2-Aminoxyhexanoic acid; CH₃.CH₂.CH₂.CH₂.CH(O.NH₂).COOH

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      gl  KNO3   25°C 0.50M U      K1=1.75      1985WTa (50279)1204
*****
C6H13NO4      HL      Bicine      CAS 150-25-4 (2124)
N,N-Bis(2-hydroxyethyl)glycine; (HO.CH2.CH2)2N.CH2.COOH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      gl  NaCl04 30°C 0.50M U      K1=6.70      B2=10.20      1975KKd (50395)1205
-----
Pb++      vlt NaCl04 25°C 0.20M U      K1=7.5      B2=10.2      1971NTa (50396)1206
B3=11.7
B(PbL(OH))=13.0
B(PbL2(OH))=14.2
B(PbL(OH)2)=17.2
B(PbL2(OH)2)=18.0, B(PbL(OH)3)19.8
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Pb++      oth KNO3   20°C 0.10M U      K1=7.5      1965JMa (50397)1207
Method: paper electrophoresis
*****
C6H13NO5      HL      Tricine      CAS 5704-04-1 (1239)
N-(Tris(hydroxymethyl)methyl)glycine; (HO.CH2)3C.NH.CH2.COOH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      gl  KNO3   25°C 0.10M C      M      K1=4.25      2003AHa (50505)1208
K(PbL+A)=3.25
HA is 3-amino-5-mercapto-1,2,4-triazole.
-----
Pb++      gl  KNO3   30°C 0.10M U      M      K1=3.28      1987TGb (50506)1209
K(Pb(phen)+L)=3.91
-----
Pb++      gl  KNO3   30°C 0.10M U      M      K1=6.21      1985TGa (50507)1210
K(Pb(bpy)+L)=5.68
-----
Pb++      vlt NaCl04 30°C 0.20M U      K1=6.72      B2=8.36      1978KJb (50508)1211
B(PbL(OH))=11.2
B(PbL2(OH))=13.1
B(Pb+2OH+L)=15.4
*****
C6H13NO6      HL      CAS 84518-56-9 (4387)
2-Amino-2-deoxy-D-gluconic acid;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      gl  NaCl04 25°C 0.10M U      K1=4.87      B2= 8.22      2000KAa (50534)1212
B(PbH-1L)=-3.03
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HA=D-galacturonic acid.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	vlt	KN03	37°C	0.15M	C			K1=3.33 B2= 5.43 B3=8.51	1995DKa	(50584)1215

C6H14N02S (6142)
2-Amino-4-(S,S-dimethylsulphonium)butanoic acid; (CH3)2S(+)-CH2CH2CH(NH2)CHLH;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	vl	NaClO4	25°C	0.50M	C			K1=3.60 B2= 4.98 B3=7.04	1986RVa	(50643)1216

C6H14N2O L (2357)
1-Oxa-4,7-diazacyclononane; Cyclo(-((CH2)2.NH)2(CH2)2.O.-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	U		K1=5.17	1986TSa	(50714)1217

C6H14N2O2		HL		Lysine			CAS 56-87-1	(41)	
2,6-Diaminohexanoic acid; H2N.(CH2)4.CH(NH2)COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	vlt	NaClO4	30°C	0.10M	C	T	H		1983Sdb (50829)	1218
								K(Pb+HL)=1.95		
								K(Pb+2HL)=3.48		
								K(Pb+3HL)=5.94		

C6H14N2S L (5635)
1-Thia-4,7-diazacyclononane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++      gl  KNO3   25°C 0.10M C      K1=6.90      1992WLb (50890)1219
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Pb++      gl  NaNO3  25°C 0.10M U      K1=6.76      1987HDa (50891)1220
*****
C6H14N4O2      HL   Arginine      CAS 74-79-3 (40)
2-Amino-5-guanidopentanoic acid; H2N.CH((CH2)3.NH.C(:NH)(NH2)COOH
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      gl  oth/un 25°C   ?  U T      K1=4.06      B2=7.42      1960PEd (51016)1221
17 C: K1=4.65, K2=4.03; 40 C: 3.89, 3.19
*****
C6H14O4      L      CAS 112-27-6 (5663)
2,2'-(1,2-Ethanediylobis(oxy))bisethanol;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      cal alc/w 25°C 100% U   H      K1=4.04      1985BUa (51056)1222
Medium: MeOH. DH(K1)= -2.9 kJ mol-1
*****
C6H14O6      L      D-Dulcitol      CAS 608-66-2 (3663)
D-Galactitol;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      ISE oth/un 25°C 1.00M U   I      1968VIa (51063)1223
K(Pb(OH)3+L)=2.45
Medium: 1.0 M NaOH. In 0.9 M NaClO4, 0.1 M NaOH, K(Pb(OH)3+L)=2.96
*****
C6H14O6      L      D-Mannitol      CAS 69-65-8 (3664)
D-Mannitol;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      ISE oth/un 25°C 1.00M U      1968VIa (51088)1224
K(Pb(OH)3+L)=2.25
Medium: 1.0 M NaOH. In 0.9 M NaClO4, 0.1 M NaOH, K=2.78
*****
C6H14O6      L      Glucitol      CAS 50-70-4 (2878)
D-Sorbitol;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      ISE oth/un 25°C 1.00M U      1968VIa (51108)1225
K(Pb(OH)3+L)=2.88
Medium: 1.0 M NaOH. In 0.9 M NaClO4, 0.1 M NaOH, K=3.42
*****
C6H14S      L      Isopropyl sulfi CAS 625-80-9 (5674)
2,2'-Thiodipropene, diisopropyl sulfide; (CH3)2CH-S-CH(CH3)2

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      ISE non-aq 25°C 100% U      K1=0.38  B2=0.56  1986MMb (51139)1226
Medium: acetone, Bu4NClO4
*****
C6H15N03      Triethanolamine  CAS 102-71-6 (447)
Tris-(2-hydroxyethyl)amine;                                     L
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      gl  NaNO3  25°C 0.10M U      K1=3.39  B2=5.86  1984HNa (51302)1227
                                         K(PbL+2OH)=13.05
                                         K(2PbL+OH)=8.89
*****
C6H15N3      L      CAS 4730-54-5 (26)
1,4,7-Triazacyclononane; cyclo(-NH.CH2.CH2.NH.CH2.CH2.NH.CH2.CH2-)
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      gl  NaClO4 25°C 0.20M M  H  K1=10.8      1978KKb (51412)1228
DH1=-34.3 kJ mol-1
*****
C6H15O2PS2      HL      (2059)
O,O'-Dipropyl dithiophosphoric acid; (C3H7O)2P(S)SH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      vlt mixed  RT  50% C      B3=9.71
                                         B4=10.86
Medium: 50% v/v DMF/H2O. Method: polarography.
*****
C6H15O15P3      H6L  Ins(1,2,6)P3  CAS 28841-62-5 (6479)
D-myo-Inositol 1,2,6-trisphosphoric acid;
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      gl  KCl  37°C 0.20M U T      K1=6.46      1991LSa (51539)1230
                                         B(Pb2L)=11.85
                                         B(PbHL)=13.31
In 0.1 M But4NBr, 25 C: B1=10.57, B(PbHL)=16.92, B(Pb2L)=18.48,
B(Pb3L)=21.34
*****
C6H15PS2      HL      CAS 22689-71-0 (4395)
P,P-Dipropylphosphinodithioic acid; (CH3.CH2.CH2)2.PS.SH
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      vlt alc/w  ?  90% U      B2=11.8      1972TCa (51556)1231

```


Medium: 90% EtOH, 0.15 M NaClO4

C6H16N2O2 L CAS 93798-65-3 (3119)

3,6-Diaza-1,8-dihydroxyoctane; HO.CH2.CH2.NH.CH2.CH2.NH.CH2.CH2.OH

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

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

C6H16N2O4P2 H2L (6466)

Piperazine-1,4-diylbis(methylene)bis(phosphinic acid); H2O2P.CH2.C4H8N2.CH2.PO2H2

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

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

C6H16N2S L (6464)

5-Thia-2,8-diazanonane;

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

Pb++ gl KNO3 25°C 0.10M C K1=5.30 1992Wlb (51740)1234

C6H16N2S2 L (3120)

3,6-Dithiaoctane-1,8-diamine; H2N.CH2.CH2.S.CH2.CH2.S.CH2.CH2.NH2

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

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

B(PbHL)=13.57

C6H17N3 L CAS 56-18-8 (968)

1,5,9-Triazanonane, 4-azaheptane-1,7-diamine; H2N.CH2.CH2.CH2.NH.CH2.CH2.CH2.NH2

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

Pb++ gl NaClO4 20°C 0.10M U 1991Wba (51902)1236

B(PbHL)=15.82

C6H18N4 L Trien-tetramine CAS 112-24-3 (11)

1,4,7,10-Tetraazadecane; H2N.CH2.CH2.NH.CH2.CH2.NH.CH2.CH2.NH2

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

Pb++ vlt KNO3 25°C 0.10M U K1=10.18 1985ABa (52120)1237

Pb++ gl NaNO3 25°C 0.10M U K1=10.35 1985Mma (52121)1238

Pb++ gl KNO3 25°C 1.00M C K1=10.36 1982ABc (52122)1239

B(PbHL)=16.28

Pb++ gl diox/w 25°C 50% U K1=10.35 1979LPa (52123)1240
K(Pb+HL)=6.07

In 0.1 M KNO3, aq. soln.: K1=10.50; K(Pb+HL)=5.94

Pb++ gl diox/w 25°C 50% C K1=10.35 B2=16.29 1979MPe (52124)1241
Medium: 50% v/v dioxan/H2O, 0.1 M KNO3. By calorimetry: DH(K1)=-43.3
kJ mol⁻¹, DS=53 J K⁻¹ mol⁻¹. DH(K2)=-15.8.

Pb++ vlt oth/un 25°C 0.20M U H K1=10.3 1977KKa (52125)1242
DH(K1)=-34.7 kJ mol⁻¹

Pb++ vlt KNO3 25°C 0.20M U K1=10.43 1974K0d (52126)1243

Pb++ sp oth/un 18°C 0.10M U B2=41.4 1971SLb (52127)1244
Metal indicator method, pH=4

Pb++ vlt alc/w 25°C 60% U I K1=11.08 B2=12.68 1969IMa (52128)1245
Medium: 0-93.5% EtOH, 0.1 M LiNO3
K1(0%)=10.12, K1(80%)=11.60, B2(0%)=11.31, B2(80%)=13.74, B3(93.5%)=16.11

Pb++ vlt KNO3 25°C 1.0M U K1=9.9 1968LCc (52129)1246

Pb++ gl KCl 25°C 0.10M U K1=10.4 1957RSb (52130)1247

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

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ gl diox/w 25°C 50% U K1=7.73 B2=13.42 1960FFa (52592)1248

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
Pb++ gl KNO3 25°C 0.10M U K1=4.7 1958YYa (52629)1249

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
Pb++ vlt KNO3 20°C 0.10M C 1998SAa (52793)1250
K1eff=9.06
B2eff=11.96

Method: potentiometric stripping analysis. Medium: pH 6.2.
By DPASV: K1eff=9.30, B2eff=11.46.

Pb++ gl KNO3 25°C 0.10M M M K1=5.26 1996AEa (52794)1251
 Data for ternary complexes with aspartic acid, serine, asparagine and
 N-(2-acetamido)iminodiacetic acid

Pb++ vlt NaClO4 25°C 0.50M U K1=8.66 B2=11.55 1972CAa (52795)1252

Pb++ sp NaClO4 25°C 0.50M U K1=8.6 1972CAa (52796)1253

Pb++ EMF NaNO3 20°C 0.10M U K1=8.70 B2=11.60 1960ANb (52797)1254

Pb++ gl KNO3 25°C 0.10M U K1=5.1 B2=8.2 1957SYb (52798)1255

C7H5O2Br HL CAS 4584-68-3 (2691)

3-Bromotropolone;

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

Pb++ gl diox/w 30°C 50% U K1=7.5 B2=13.1 1954BFd (53115)1256

C7H5O6BrS H2L (1626)

3-Bromo-5-sulfosalicylic acid; Br.C6H2(OH)(COOH).SO3H

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

Pb++ ISE NaClO4 25°C 3.00M C T 1976LEb (53373)1257

B(0,1,1)=1.116

B(0,1,2)=1.931

B(-1,1,1)=-4.875

B(-2,1,2)=-11.187

B(p,q,r): pH+qPb+rHL=Hp(Pb)qHLr

C7H6O2 HL Salicylaldehyde CAS 90-02-8 (193)

2-Hydroxybenzaldehyde, Salicylaldehyde; HO.C6H4.CHO

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

Pb++ gl KNO3 25°C 0.50M U K1=3.04 1969HLA (53629)1258

Pb++ gl diox/w 25°C 50% U K1=5.06 B2=9.10 1949MMA (53630)1259

C7H6O2 HL Tropolone CAS 533-75-5 (3129)

2-Hydroxycyclohepta-2,4,6-trien-1-one;

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

Pb++ gl diox/w 30°C 50% U K1=8.0 B2=14.0 1953BFa (53685)1260

C7H6O2 HL Benzoic Acid CAS 65-85-0 (462)

Benzenecarboxylic acid; C6H5.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	NaClO4	30°C	1.0M	C		K1=2.08 B2= 3.46	1988GMc	(53848)1261

Method: polarography.

Pb++	ISE	NaClO4	25°C	1.00M	C		K1=1.87 B2=2.89	19780Sa	(53849)1262
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Pb++	gl	KNO3	30°C	0.40M	U		K1=1.99	1970BTa	(53850)1263
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Pb++	vlt	NaClO4	40°C	1.0M	U T H		B2=3.28	1964JGa	(53851)1264
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B2=3.30(30 C). DH(B2)=-26.7 kJ mol⁻¹

Pb++	gl	oth/un	25°C	0.10M	U		K1=2.0	1960YYa	(53852)1265
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C7H6O2S H2L Thiosalicylic CAS 147-93-3 (236)
2-Mercaptobenzoic acid; HS.C6H4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	vlt	alc/w	30°C	50%	U		K1=2.29?	1967KNa	(53913)1266
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Medium: 50% EtOH, 0.2 M KNO3, acetate buffer

C7H6O3 H2L Salicylic acid CAS 69-72-7 (14)
2-Hydroxybenzoic acid, Salicylic acid; HO.C6H4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	alc/w	25°C	100%	M H		K1=5.9 B2=8.5	1994MPc	(54279)1267
------	----	-------	------	------	-----	--	---------------	---------	-------------

Medium: MeOH; DH(K1)=18 kJ mol⁻¹, DS=17 J K⁻¹ mol⁻¹; DH(B2)=39, DS=29

C7H6O4 H3L Protocatechuic CAS 99-50-3 (875)
3,4-Dihydroxybenzoic acid; C6H3(OH)2.COOH

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

Pb++	gl	NaClO4	25°C	1.00M	U			1981KMa	(54690)1268
------	----	--------	------	-------	---	--	--	---------	-------------

B(PbH2L)=23.73

C7H6O5 H4L Gallic acid CAS 149-91-7 (446)
3,4,5-Trihydroxybenzoic acid; C6H2(OH)3.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	NaClO4	25°C	1.00M	U		K1=2.03	1987VIa	(54759)1269
------	----	--------	------	-------	---	--	---------	---------	-------------

C7H7NO2 HL Anthranilic CAS 118-92-3 (1589)
2-Aminobenzoic acid, Anthranilic acid; H2N.C6H4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++ gl oth/un 25°C 0.0 U 1960LUa (55250)1270
Kso=-9.81

Pb++ gl oth/un 25°C ->0 U K1=2.82 1958LUa (55251)1271

C7H7NO2 HL CAS 39825-16-6 (3756)
4-Methyl-2-nitrosophenol; CH3.C6H3(N:O).OH

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

Pb++ gl diox/w 25°C 50% U K1=5.53 1961SHa (55405)1272
Medium: 50% dioxan, 0.1 M KNO3

C7H7NO2 HL CAS 3222-47-7 (3154)
6-Methylpyridine-2-carboxylic acid; CH3.C5H3N.CO0H

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

Pb++ gl NaNO3 20°C 0.10M U K1=4.0 1960ANb (55431)1273

C7H7NO2 HL CAS 495-18-1 (184)
Benzohydroxamic acid; C6H5.CO.NH.OH

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

Pb++ gl diox/w 30°C 50% U K1=10.49 B2=19.60 1994JBb (55511)1274
Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4.

C7H7N2O2F3S HL CAS 73255-69-3 (559)
2-(Trifluoromethanesulfonamidomethyl)pyridine; C5H4NCH2S(:O)2NHCF3

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

Pb++ gl diox/w 30°C 45% U K1=5.04 B2=9.19 1982MYb (55715)1275
Medium: 45% v/v dioxan/H2O, 0.01 M KNO3

C7H10N2OS HL CAS 51-52-5 (4468)
6-Propyl-2-thiouracil (6-propyl-4-hydroxy-2-mercaptopyrimidine);

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

Pb++ gl oth/un 26°C 0.01M U T K1=4.79 B2=8.15 1970Gwa (56677)1276
1(34.8 C)=4.63, K1(44.7 C)=4.44, K2(34.8 C)=3.41, K2(44.7 C)=3.27

C7H10N2O2S HL (560)
2-(Methanesulfonamidomethyl)pyridine; C5H4N.CH2S(:O)2NHCH3

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

Pb++ gl diox/w 30°C 45% U K1=6.73 B2=12.26 1982MYb (56686)1277

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

C7H11NO5 H2L (3164)
1-Amino-2-propanone-N,N-diethanoic acid; CH3.CO.CH2.N(CH2.COOH)2

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

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

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

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

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

C7H11N3O HL CAS 18259-63-7 (2265)
N,N-Dimethyl-1-methyl-4-aminopyrimidin-2-one;

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

Pb++ nmr non-aq 25°C 100% U M 1980MCb (56964)1280

K(PbCl2+L)=0.43

Medium: DMSO=d6

C7H11N3O2 L CAS 7389-87-9 (3162)
Histidine methyl ester

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

Pb++ EMF oth/un 25°C ? U K1=5.8 1966PAa (57004)1281

C7H12N2O5 H2L Gly-Glu CAS 7412-78-4 (280)
Glycyl-glutamic acid; H2N.CH2.CO.NH.CH(CH2.CH2.COOH).COOH

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

Pb++ gl KNO3 25°C 0.10M C K1=3.89 2002FBa (57175)1282

B(PbHL)=10.70

K(PbL+H)=6.81

K(Pb+HL)=2.327

Pb++ gl KNO3 20°C 0.10M U K1=8.40 B2=10.64 1980BBc (57176)1283

C7H12O4 H2L Pimelic acid CAS 111-16-0 (985)
1,7-Heptanedioic acid; HOOCH(CH2)5.COOH

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

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

C7H13NO4S H2L (3184)
N-(2-Methylthioethyl)iminodiethanoic acid; CH3.S.CH2.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	KNO3	20°C	0.10M	U			K1=9.12 B2=12.48 B(Pb(OH)L+H)=10.44	1955SAa (57549)	1285

C7H13NO5 H2L CAS 62117-07-1 (3171)
N-(2-Methoxyethyl)iminodiethanoic acid; CH3.O.CH2.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	KNO3	20°C	0.10M	U			K1=9.49 B2=13.24 K(PbLOH+H)=10.11 K(PbL2OH+H)=10.72	1955SAa (57577)	1286

C7H13NO5 H2L CAS 41433-03-8 (4451)
N-(Carboxymethyl)-N-(2'-hydroxyethyl)alanine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	EMF	KNO3	20°C	0.10M	U			K1=9.36 B2=13.37	1968MRb (57597)	1287

C7H13NO6 H2L CAS 32013-58-4 (6079)
N-(2,3-Dihydroxypropyl)iminodiethanoic acid; HO.CH2.CH(OH).CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	KNO3	20°C	0.10M	U			K1=9.02 B2=12.94	1980MRc (57617)	1288

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

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

C7H15NO4 HL CAS 41244-51-3 (4459)
N,N-Bis(2'-hydroxyethyl)alanine; (HO.CH2.CH2)2.N.CH(CH3)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	EMF	KNO3	20°C	0.10M	U			K1=6.20 B2=10.52	1968MRb (57940)	1290

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++ gl NaNO3 30°C 0.10M U K1=3.7 1979MNa (57973)1291

C7H16S L CAS 26158-99-6 (5696)
Pentyl-ethylsulfide; C2H5.S.C5H11

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	non-aq	25°C	100%	U		K1=0.41 B2=0.55	1986MMb (58096)	1292

Medium: acetone, Bu4NC104

C7H17N02 L (6450)
N,N-Di(2-hydroxypropyl)methylamine; CH3.N(CH2.CH(OH).CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	oth/un	25°C	?	C		K1=3.70	1991DMa (58106)	1293

C7H17N05 L CAS 6284-40-8 (3176)
N-Methylglucamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	NaCl04	30°C	0.30M	U	I		1959JUa (58108)	1294

K(PbL+20H)=15.22
K=15.13(I=0.65 M); 15.01(I=0.99-2.0 M). By glass electrode: K(Pb20L2+2H)=
20.4. Data also for several other polynuclear complexes

C7H17N3 L (101)
1,4,7-Triazacyclodecane; cyclo(.NHCH2CH2NHCH2CH2NHCH2CH2CH2.)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaCl04	25°C	0.20M	M	H	K1=8.8	1978KKb (58225)	1295

DH1=-34.3 kJ mol-1

C7H19N3 L Spermidine CAS 124-20-9 (13)
1,5,10-Triazadecane, 4-Azaoctane-1,8-diamine; H2N.(CH2)3.NH.(CH2)4.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaCl04	20°C	0.10M	U			1991WBa (58311)	1296

B(PbHL)=15.98

C7H20N4 L CAS 4741-99-5 (12)
1,4,8,11-Tetraazaundecane; H2N.CH2.CH2.NH.CH2.CH2.CH2.NH.CH2.CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	oth/un	25°C	0.20M	U	H	K1=7.8	1977KKa (58358)	1297

Purpuric acid (Murexide is ammonium salt);

Benzene-1,2-dicarboxylic acid; $C_6H_4(COOH)_2$

Benzene-1,3-dicarboxylic acid; $C_6H_4(COOH)_2$

N-(2'-Nitrobenzenesulfonyl)aminoethanoic acid; 02N.C6H4.SO2.NH.CH2.COOH

alpha-Methyltropolone;

684922 III CAS 532 88 2 (2101)

beta-Methyltropolone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	30°C	50%	U		K1=9.6 B2=16.2	1954BFb	(59602)1304

C8H8O2S HL CAS 103-04-8 (3223)
(Phenylthio)ethanoic acid; C6H5.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	oth/un	25°C	0.10M	U		K1=1.8	1962SYa	(59625)1305

C8H8O3 HL m-Anisic acid CAS 586-38-9 (2804)
3-Methoxybenzoic acid; CH3O.C6H4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	oth/un	25°C	0.10M	U		K1=1.9	1960YYa	(59916)1306

C8H8O3 HL Phenoxyacetic CAS 122-59-8 (1153)
Phenoxyethanoic acid; C6H5.O.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	oth/un	25°C	0.10M	U		K1=1.4	1962SYa	(60040)1307

C8H9NOS HL CAS 4822-44-0 (3240)
N-(Mercaptoacetyl)aniline (thioglycolanilide); C6H5.NH.CO.CH2.SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++		oth diox/w	30°C	70%	U		B2=21.72	1973BSa	(60162)1308

Medium: 0.1 M KNO3

C8H9NO3 HL CAS 2292-53-7 (8860)
Mandelohydroxamic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	20°C	0.10M	U		K1=3.68 B2= 7.11	1989SMc	(60447)1309

C8H9NO4 H2L Mimosinic acid (2309)
3-(3-Hydroxy-4-oxo-1,4-dihydropyridin-1-yl)propanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	37°C	0.15M	C		K1=8.57 B2=13.50 K(PbL+H)=3.77	1979SPd	(60468)1310

C8H9N3O7 H2L Uramildiacetic CAS 13055-06-5 (185)
5-Amino-2,4,6-trioxo-1,3-perhydrodiazimino-N,N-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	U		K1=12.73	1983FSa (60648)	1311
Pb++	gl	R4N.X	25°C	0.10M	C		K2=3.74	1975JTa (60649)	1312
Pb++	oth	KNO3	25°C	0.10M	U		K1=12.73	1972FVa (60650)	1313
Pb++	gl	KNO3	20°C	0.10M	U		K1=12	1963IFb (60651)	1314

C8H10N2O4 H2L Mimosine CAS 2116-55-4 (2308)
 2-Amino-3-(3-hydroxy-4-oxo-1,4-dihydropyridin-1-yl)propanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	37°C	0.15M	C		K1=8.50 B2=13.46 B(PbHL)=15.43 B(PbHL2)=21.07 B(PbH2L2)=27.92 B(Pb2L)=11.35	1979SPd (60757)	1315

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

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

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

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

C8H10O9 H4L CAS 137172-86-2 (6612)
 SS-Oxydisuccinic acid; O(CH(COOH)CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KCl	25°C	0.10M	C		K1=7.44 K(PbL+H)=3.74 K(PbHL+H)=2.64 K(PbH2L+H)=2.04 K(Pb+HL)=5.20	1992MMa (60906)	1317

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

C8H10O9 H4L CAS 84852-72-2 (6611)
 meso-Oxydisuccinic acid; O(CH(COOH)CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++      gl  KCl      25°C 0.10M C      K1=7.71      1992MMa (60918)1318
              K(PbL+H)=3.98
              K(PbHL+H)=2.84
              K(PbH2L+H)=1.7
              K(Pb+HL)=5.72

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

```

C8H10O10      H4L      (5894)
1-Hydroxy-3-oxapentane-1,2,4,5-tetracarboxylic acid;
HO.CH(COOH).CH(COOH).O.CH(COOH).CH2(COOH)

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      gl  KCl      25°C 0.10M C      K1=7.01      1989MMd (60930)1319
              K(PbL+H)=3.98
              K(PbHL+H)=2.67

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C8H11NO2      H2L      Dopamine      CAS 579-59-9 (251)
2-(3',4'-Dihydroxyphenyl)ethylamine; (HO)2.C6H3.CH2.CH2.NH2

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      gl  NaClO4 25°C 1.0M C      1997GCa (61083)1320
              K(Pb+H2L=PbHL+H)=-4.6
              K(Pb+H2L=PbL+H)=-9.31
              K(PbHL=PbL+H)=-4.69

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Ligand defined as H2L

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

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C8H11NO3      HL      Vitamin B6      CAS 65-23-6 (254)
5-Hydroxy-6-methyl-3,4-pyridinedimethanol, Pyridoxine;

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      vlt KNO3 30°C 1.0M C      M      1989SCc (61123)1322
              K(Pb+HL)=1.09
              K(Pb+HL+ser)=5.43
              K(Pb+HL+trp)=5.57

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Method: polarography. Medium pH >5.6

K(Pb+HL+val)=5.43, K(Pb+HL+thr)=5.39, K(Pb+HL+phe)=5.33.

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

```

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

```

C8H11NO3      H2L      Noradrenaline      CAS 138-65-8 (253)

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Norepinephrine, 3,4-Dihydroxyphenylethanolamine; (HO)2C6H3.CH(CH2.NH2).OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	gl	NaNO3	20°C	0.50M	U				1974GSa (61167)	1324
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B(PbHL)=20.47

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	vlt	KNO3	25°C	0.10M	U			K1=11.12 K(Pb+HL)=5.58	1973GSd (61518)	1325
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C8H13NO6 H3L (5681)
2-Aminobutanoic-N,N-diethanoic acid; CH3CH2CH(COOH)N(CH2COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	gl	KNO3	20°C	0.10M	U			K1=11.55	1974RMf (61792)	1326
------	----	------	------	-------	---	--	--	----------	-----------------	------

C8H13NO6S H3L (5675)
2-Mercapto-1-aminoethane-N,N,S-triethanoic acid; HOOC.CH2.S.CH2.CH2.N(CH2COOH)2

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

Pb++	gl	NaClO4	25°C	0.10M	U			K1=10.75 K(Pb+HL)=3.09	1975POa (61828)	1327
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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
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Pb++	gl	NaNO3	25°C	0.10M	U			K1=3.86	1990HNa (61947)	1328
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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
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Pb++	nmr	oth/un	25°C	0.80M	U			K1=3.00 K(Pb+HL)=1.40	1972RLb (62023)	1329
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Medium: 0.8, 0.2 Pb(NO3)2

C8H14O2S2 HL Lipoic acid CAS 1077-28-7 (409)
1,2-Dithiolane-3-pentanoic acid (6,8-Thioctic acid); C3H5S2.(CH2)4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++ EMF diox/w 25°C 50% U K1=3.58 1978SPa (62073)1330
With L-lipoic acid: K1=3.57; D-lipoic acid: 3.51

C8H15NO6 H2L CAS 92511-22-3 (6074)
N-(1,1-Di(hydroxymethyl)ethyl)iminoethanoic acid; (HO.CH2)2C(CH3).N(CH2.COOH)2

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

Pb++ gl NaClO4 25°C 1.0M C K1=10.12 1981ASb (62217)1331
B(PbH-1L)=1.68

C8H16N2O3 HL Leu-Gly CAS 686-50-0 (1248)
Leucyl-glycine; H2N.CH(CH2.CH(CH3)2).CO.NH.CH2.COOH

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

Pb++ gl NaClO4 25°C 1.00M U K1=3.95 1979KMa (62437)1332
B(PbHL)=11.30
B(PbH-1L)=-3.76

C8H16N2O4 H2L (267)
1,2-Diaminoethane-N,N'-di(2-propanoic acid); ((CH3)(COOH).CH.NH.CH2)2

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

Pb++ gl KNO3 25°C 0.10M U K1=10.0 1983FSa (62474)1333

Pb++ gl KNO3 20°C 0.10M U K1=9.99 1966MKb (62475)1334

C8H16N2O4 H2L (266)
N,N'-Dimethylethylenediamine-N,N'-diethanoic acid;

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

Pb++ gl KNO3 25°C 0.10M C K1=11.29 1993WLa (62531)1335
K(Pb+HL)=3.8
K(PbL+OH)=2.82

C8H16N2O4S2 H4L (6947)
2,7-Dicarboxy-3,6-diaza-1,8-octanedithiol;
HS.CH2.CH(COOH)NH.CH2CH2.NH.CH(COOH)CH2.SH

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

Pb++ gl KCl 25°C 0.10M C K1=19.86 1996LMa (62550)1336
B(PbHL)=27.25
B(PbH2L)=31.30
B(Pb(OH)L)=8.40

C8H16N2O4S2 H2L (1226)
3,6-Dithiaoctanediamine-4,5-dicarboxylic acid; (H2N.C2H4.S.CH(COOH))2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	0.10M	U		K1=16.38 B2=23.21	1978MJa (62559)	1337

C8H16N2O6 H2L CAS 50730-95-5 (4548)
Ethylenediiminobis(3-hydroxy-2-propanoic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	EMF	oth/un	20°C	0.10M	U	M	K1=11.24 K(PbOH+L)=3.80	1972DKa (62587)	1338

Pb++	gl	KNO3	20°C	0.10M	U		K1=11.24	1970DKa (62588)	1339
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By spectrophotometry: K1=11.35 in 0.1 M NaClO4

C8H16O2 HL Valproic acid CAS 99-66-1 (6022)
2-Propylpentanoic acid, dipropylethanoic acid; (CH3.CH2.CH2)2CH.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaCl	37°C	0.15M	C		K1=2.34 B(PbH-1L2)=-0.06	1988BCb (62617)	1340

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

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

DH(K1)=-2.4 kJ mol-1, DS(K1)=68.5 J K-1 mol-1; DH(K2)=-5.0, DS(K2)=17.
Medium: MeOH.

C8H16O4 L 12-Crown-4 CAS 294-93-9 (174)
1,4,7,10-Tetraoxacyclododecane; cyclo(-O.(CH2.CH2.O)3.CH2.CH2-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	R4N.X	25°C	0.2M	U		K1=15.2	1999BBc (62714)	1342

Medium: 0.2 M Bu4NPF6

Pb++	vlt	mixed	25°C	90%	C		K1=2.7	1996SSc (62715)	1343
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Method: polarography. Medium: 90% w/w CH3CN/H2O.

Pb++	cal	non-aq	25°C	100%	C	H	K1=1.77 B2= 3.88	1986BUe (62716)	1344
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DH(K1)=-13.9 kJ mol-1, DS(K1)=-13 J K-1 mol-1; DH(K2)=-9.6, DS(K2)=8.1.
Medium: MeOH.

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

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

Pb++ vlt R4N.X 25°C 0.10M U T K1=2.00 1978KKe (62719)1347

C8H17NO3 L CAS 41775-76-2 (6751)
10-Aza-1,4,7-trioxacyclododecane;

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

Pb++ vlt NaNO3 25°C 0.5M C K1=3.75 1998CCf (62767)1348
K(Pb+L+OH)=9.30
K(Pb+L+2OH)=12.70

Method: Differential pulse polarography.

C8H17N3O2 HL (5973)
1,4,7-Triazacyclononane-1-ethanoic acid;

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

Pb++ gl KNO3 25°C 0.50M M K1=13.11 1993CKa (62792)1349
K(Pb(OH)L+H)=12.34

C8H18N2O5 L [12]aneN2O5 CAS 124775-44-6 (7839)
1-Oxa-7-thia-4,10-diazacyclododecane;

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

Pb++ gl R4N.X 25°C 0.10M C K1=6.6 1999AMa (62823)1350
Medium: 0.10 M Et4NClO4.

C8H18N2O2 L CAS 60350-13-2 (5708)
1,4-Dioxa-7,10-diazacyclododecane;

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

Pb++ gl NaNO3 25°C 0.10M U K1=6.3 1986TSa (62827)1351
Believed to be unreliable due to low solubility of the ligand

C8H18N2O2 L CAS 294-92-8 (654)
1,7-Dioxo-4,10-diazacyclododecane;

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

Pb++ cal non-aq 25°C 100% C H K1=7.22 B2= 8.95 1986BUe (62848)1352
DH(K1)=-27.2 kJ mol⁻¹, DS(K1)=46.3 J K⁻¹ mol⁻¹; DH(K2)=4.7, DS(K2)=48.7.
Medium: MeOH.

Pb++ gl R4N.X 25°C 0.10M U K1=6.37 1985NSb (62849)1353
B(PbH-1L)=-2.9

C8H18O5 L Tetra-Et-Glycol CAS 112-60-7 (5664)
2,2'-(Oxybis(2,2-ethanedioxy))-bis-ethanol; O(CH2.CH2.O.CH2.CH2.OH)2

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

Pb++ cal alc/w 25°C 100% U H K1=3.17 1985BUa (63006)1354
Medium: MeOH. DH(K1)=-13.1 kJ mol-1

C8H19NO5 L Bis-tris CAS 6976-37-0 (2827)
Bis-(2-hydroxyethyl)imino-tris(hydroxymethyl)methane;

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

Pb++ gl KNO3 25°C 1.0M C K1=4.32 1980SAb (63067)1355
K(Pb(ATP)+L)=1.83

C8H19N3O L (4430)
1-Oxa-4,7,10-triazacyclododecane;

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

Pb++ gl KNO3 25°C 0.10M U K1=11.54 B2=14.95 1991ACa (63136)1356
B(PbH-1L)=0.1
K(PbL+OH)=2.38

Pb++ gl NaNO3 25°C 0.10M U K1=11.54 1988HSb (63137)1357

Pb++ gl NaNO3 25°C 0.10M U K1=11.54 1986TSa (63138)1358

C8H19O2PS2 HL CAS 2253-44-3 (2060)
O,O'-Dibutyl dithiophosphoric acid; (C4H9O)2P(S)SH

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

Pb++ vlt mixed RT 50% C B3=10.66
B4=11.84

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

Pb++ vlt alc/w ? 90% U B2=10.60 1971TCa (63159)1360
Medium: 90% EtOH, 0.3 M NaClO4

C8H19PS2 HL CAS 32435-51-5 (4552)
Di-n-butyl phosphinedithioic acid; (C4H9)2PSSH

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

Pb++ vlt alc/w ? 90% U B2=12.0 1971TCa (63208)1361
Medium: 90% EtOH, 0.15 M NaClO4

C8H20N4 L Cyclen CAS 294-90-6 (10)
1,4,7,10-Tetraazacyclododecane; cyclo(-(NH.CH2.CH2.)4-)

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

Pb++ gl NaNO3 25°C 0.10M U K1=15.9 1988HSb (63296)1362

Pb++ vlt oth/un 25°C 0.20M U H K1=15.9 1977KKa (63297)1363
DH(K1)=-27.6 kJ mol⁻¹

C8H23N5 L Tetren CAS 112-57-2 (715)
1,4,7,10,13-Pentaazatriodecane (Tetraethylenepentamine);

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

Pb++ vlt NaClO4 25°C 0.20M M H K1=9.9 1978KKb (63478)1364
DH1=-38.1 kJ mol⁻¹

Pb++ vlt oth/un 25°C 1.0M U K1=10.9 1962JSa (63479)1365
Medium: NH3

Pb++ gl KNO3 25°C 0.10M U K1=10-11 1958RHa (63480)1366

C9H6NOCl HL CAS 130-16-5 (1268)
5-Chloro-8-hydroxyquinoline;

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

Pb++ gl diox/w 25°C 60% U K1=10.26 B2=17.82 1973SCd (63664)1367
Medium: 60% dioxan, 0.1 M NaClO4

C9H6N2O3 HL CAS 5437-99-0 (3865)
5-Nitro-8-hydroxyquinoline;

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

Pb++ gl diox/w 25°C 60% U K1=7.63 B2=13.16 1973SCd (63865)1368
Medium: 60% dioxan, 0.1 M NaClO4

C9H6N2O6S H2L CAS 15851-63-3 (1433)
7-Nitro-8-hydroxyquinoline-5-sulfonic acid;

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

Pb++ EMF oth/un 25°C 0.0 U K1=5.92 1955NUa (63913)1369

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	sp	diox/w	25°C	50%	U	I		K1=10.03 B2=17.34	1978QCa (64329)	1370
In water-saturated propylene carbonate K1=11.4, K2=9.5										
Pb++	gl	diox/w	25°C	60%	U			K1=10.82 B2=18.41	1973SCd (64330)	1371
Medium: 60% dioxan, 0.1 M NaClO4										
Pb++	gl	diox/w	25°C	50%	U	H		K1=10.03 B2=17.34	1968GFa (64331)	1372
Medium: 50% dioxan, 0.1 M NaClO4. By calorimetry:DH1=-27.6 kJ mol ⁻¹ , DS1=100 J K ⁻¹ mol ⁻¹ ; DH(B2)=-63.1, DS=121										

Pb++	gl	oth/un	25°C	0.0	U	K1=9.02	1953NAb (64332)1373
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Pb++ gl diox/w 25°C 50% U K1=10.61 B2=18.70 1952JFa (64333)1374

C9H7N03S2 H2L CAS 58447-10-2 (4675)
8-Mercaptoquinoline-5-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K	values	Reference	ExptNo
Pb++	sp	oth/un	?	?	U			K1=9.6	B2=15.70	1968ABa	(64428)1375

C9H7NO4S H2L Sulfoxine CAS 84-88-8 (448)
8-Hydroxyquinoline-5-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	ISE	KN03	25°C	0.10M	U			K1=7.77	1980Nwa	(64571)1376
Pb++	gl	oth/un	25°C	0.0	U			K1=8.53 B2=16.13	1954NUa	(64572)1377

C9H7NS HL CAS 76076-35-2 (5695)
2-Mercaptoquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	EMF	non-aq	25°C	100%	U		K1=7.6 B2=12.40	1986UBa	(64613)1378
Medium: dimethylformamide, LiClO4									

C9H7NS HL Quinolinethiol CAS 491-33-8 (1028)
8-Mercaptoquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	non-aq	25°C	100%	U			K1=8.6 B2=14.1	1984UBa	(64650)1379
Medium: DMF, 0.1 M LiClO4. Similar data to reference UB83a										

Pb++ EMF non-aq 25°C 100% U K1=8.6 B2=14.10 1983UBa (64651)1380
Medium: DMF, 0.1 M LiClO4

Pb++ cal diox/w 25°C 50% U H 1968GFa (64652)1381
Medium: 50% dioxan, 0.1 M NaClO4. DH(K1)=-42.2 kJ mol⁻¹, DS=84 J K⁻¹ mol⁻¹

Pb++ sp diox/w 27°C 50% U K1=11.85 1963CFa (64653)1382

C9H7NSe HL CAS 16396-64-8 (3867)
8-Hydroselenylquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ sp diox/w 25°C 50% U K1=10.4 1965SFa (64657)1383
K(PbL+H)=0.4

Medium: 50% dioxan, 0.1 M NaClO4

C9H7N3O2S H2L TAR CAS 2246-46-0 (707)
4-(2'-Thiazolylazo)-resorcinol; C3H2NS.N:N.C6H3(OH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ gl alc/w 25°C 50% U 1967NPb (64719)1384
K(Pb+HL)=9.7

Medium: 50% MeOH, 0.1 M NaClO4

Pb++ sp NaClO4 20°C 0.10M U 1966HSb (64720)1385
K(Pb+HL)=8.34

C9H8N2 L CAS 578-66-5 (503)
8-Aminoquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ gl oth/un 25°C 0.10M U K1=1.4 1964PCa (64783)1386

C9H8O4 HL Acetylsalicylic CAS 50-78-2 (1240)
2-Acetoxybenzoic acid, Acetylsalicylic acid; CH3.CO.O.C6H4.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ vlt NaClO4 30°C 1.5M C K1=1.845 B2= 2.37 1980YVa (64898)1387
B3=3.310

Method: polarography.

C9H8O4S H2L CAS 135-13-7 (4620)
(2-Carboxyphenylthio)ethanoic acid; HOO.C6H4.S.CH2.COOH

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

Pb++ gl oth/un 25°C 0.10M U K1=2.5 1962SYa (65003)1388

C9H8O5 H2L CAS 635-53-0 (3246)
2-(Carboxymethoxy)benzoic acid; H00C.CH2.O.C6H4.COOH

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

Pb++ gl oth/un 25°C 0.10M U K1=2.6 1962SYa (65021)1389

C9H9NO3 HL Hippuric acid CAS 495-69-2 (1184)
Benzoylaminoethanoic acid, N-benzoylglycine; C6H5.CO.NH.CH2.COOH

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

Pb++ vlt NaNO3 25°C 0.10M U M K1=6.70 1996BBd (65057)1390
K(Pb+HL)=1.09
K(Pb+2HL)=2.06
B(Pb(bpy)L)=9.51
K(Pb+bpy+2HL)=5.06

C9H9N3O2S2 HL Sulfathiazole CAS 72-14-0 (8357)
4-Amino-N-2-thiazolyl-benzenesulfonamide;

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

Pb++ gl alc/w 25°C 50% C K1=4.26 1999GAa (65134)1391
Medium: 50% EtOH/H2O, 0.10 M NaNO3.

C9H10N2O3 HL CAS 61-78-9 (8235)
4-Aminohippuric acid;

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

Pb++ vlt KNO3 35°C 1.0M C T H K1=4.778 B2= 9.59 1980SSg (65250)1392
Method: polarography. At 20 C, K1=4.892, B2=9.606.
DH(K1)=-13.9 kJ mol⁻¹, DS(B2)=-48.8.

C9H10O2S HL CAS 21101-79-1 (3267)
2-Ethylthiobenzoic acid; CH3.CH2.S.C6H4.COOH

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

Pb++ gl diox/w 30°C 50% U K1=4 1956IFa (65408)1393

C9H11NOS HL CAS 36076-50-3 (4680)
N-Phenyl-N-methyl-2-mercaptoacetamide; HS.CH2.CO.N(CH3).C6H5

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

Pb++ oth diox/w 30°C 70% U K1=9.50 B2=18.17 1973BSc (65681)1394

C9H11NO2 HL Phenylalanine CAS 63-91-2 (2)
2-Amino-3-phenylpropanoic acid; H2N.CH(CH2.C6H5)COOH

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

Pb++ vlt KNO3 30°C 1.0M C K1=4.94 B2= 7.65 1989SCc (65963)1395
Method: polarography. Medium pH >5.6

Pb++ gl NaClO4 25°C 3.0M U T K1=4.63 B2=8.35 1973CTb (65964)1396

Pb++ gl KNO3 20°C 0.37M U T K1=4.01 B2=8.84 1966SWa (65965)1397

C9H11NO3 H2L Tyrosine CAS 60-18-4 (4)
2-Amino-3-(4-hydroxyphenyl)propanoic acid; HO.C6H4.CH2.CH(NH2).COOH

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

Pb++ gl NaNO3 20°C 0.37M U 1971WSa (66238)1398
K(Pb+HL)=4.14
K(Pb+2HL)=8.54

C9H11NO3 HL CAS 78547-13-4 (1897)
2-Aminooxy-3-phenyl-propanoic acid; C6H5.CH2.CH(O.NH2).COOH

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

Pb++ gl KNO3 25°C 0.50M U K1=1.72 1985WTa (66266)1399

C9H11NO4 H3L DOPA CAS 59-92-7 (5)
2-Amino-3-(3,4-dihydroxyphenyl)propanoic acid; H2NCH(CH2C6H3(OH)2)COOH

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

Pb++ gl NaNO3 20°C 0.50M U 1974GSa (66401)1400
K(Pb+H2L)=5.56

C9H11NO4S H2L CAS 1080-44-0 (4682)
N-(4-Toluenesulfonyl)glycine, N-tosylglycine; CH3.C6H4.SO2.NH.CH2.COOH

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

Pb++ vlt NaNO3 25°C 0.10M U M K1=6.43 1996BBd (66425)1401
K(Pb+HL)=1.08
K(Pb+2HL)=2.03
B(Pb(bpy)L)=9.11
K(Pb+bpy+2HL)=5.03

Pb++ vlt oth/un 25°C 0.10M U 1968RFa (66426)1402

B3=12.88

C9H11N3O2 H2L CAS 36408-72-7 (7572)

2,6-Diacetylpyridine dioxime; $C_5H_3N(C(=NOH)CH_3)_2$

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++ kin alc/w 25°C 24% U 1998YGa (66481)1403

$$*K(\text{PbH}_2\text{L}) = -6.4$$

Medium: 24% v/v EtOH/H₂O, 4% MeCN, 0.1 M NaCl.

C9H11N3O2S HL CAS 51146-75-9 (6170)

N-(2-Hydroxy-3-methoxybenzylidene)thiosemicarbazide; CH₃O(OH)C₆H₃.CH:N.CS.NH.NH₂

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++ gl diox/w 35°C 50% U I K1=6.72 1993GJa (66509)1404

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

Also data for 50% dioxane/H₂O, 0.0200.2 M NaClO₄. At I=0, K₁=7.10.

C9H12N2O4 HL (2310)

2-Amino-3-(3-methoxy-4-oxo-1,4-dihydropyridin-1-yl)propanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++ gl KNO3 37°C 0.15M C K1=3.0 B2=5.20 1979SPd (66614)1405

C9H12N2O6	HL	Uridine	CAS 58-96-8	(828)
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Uracil-1-beta-D-ribofuranoside;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++ gl NaNO3 20°C 1.0M U K1=3.4 1965FBa (66702)1406

C9H12N2O10 H5L CAS 80921-06-8 (2924)

2,3-Diaminopropanoic-N,N'-di-1,3-propanedioic acid;

$$(\text{HOOC})_2\text{CH} \cdot \text{NH} \cdot \text{CH}(\text{COOH}) \cdot \text{CH}_2 \cdot \text{NH} \cdot \text{CH}(\text{COOH})_2$$

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	EMF	KN03	25°C	0.10M	U	K1=12.02	1982KBb	(66743)1407
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C9H13NO3	H2L	(-)-Adrenaline	CAS 51-43-4	(252)
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4-(1-Hydroxy-2-(methylamino)ethyl)-1,2-dihydroxybenzene,

Epinephrine; $\text{CH}_3\text{NHCH}(\text{OH})\text{C}_6\text{H}_3(\text{OH})_2$

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++ gl NaCl04 25°C 1.0M C 1997GCa (66866)1408

$$K(Pb + H_2L = PbHL + H) = -4.8$$

Ligand defined as H₂L. $K(\text{Pb} + 2\text{H}_2\text{L} = \text{PbH} - 1\text{L} + 5\text{H}) = -33.99$, $K(\text{PbHL} = \text{PbL} + \text{H}) = -4.2$, $K(\text{PbL} = \text{PbH} - 1\text{L} + \text{H}) = -9.29$, $K(\text{PbH} - 1\text{L}_2 = \text{PbH} - 2\text{L}_2 + \text{H}) = -9.81$, $K(\text{PbL} + \text{H}_2\text{L} = \text{PbL}_2 + 2\text{H}) = -15.08$

C9H13N06 H3L (3881)
2,6-Dicarboxypiperidyl-N-ethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KN03	25°C	0.10M	U		K1=11.24	1968KTd (66891)	1410

C9H13N2O9P			H3L	UMP-5			CAS 58-97-9	(2948)	
Uridine-5'-monophosphoric acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	M				1999DSa (66979)	1411
K(Pb+HL)=2.80										

C9H13N3O5			L	Cytidine				CAS 65-46-3	(2152)	
Cytidine, Cytosine-1-beta-D-ribofuranoside;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	nmr	non-aq	32°C	100%	U			K(Pb(NO3)2+L)=1.0 K(Pb(ClO4)2+L)=0.90 K(PbCl2+L)=0.079	1980Mca (67071)	1412

Pb++ g1 NaNO3 20°C 1.0M U K1=0.96 1965FBa (67072)1413

 C9H14N3O8P H2L CMP-5 CAS 63-37-6 (1243)
 Cytidine-5'-monophosphoric acid, Cytidilic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	M		K1=2.93 K(Pb+HL)=1.55 K(PbL+H)=4.81	1999DSa	(67261)1414

C9H14N4O3			HL		Carnosine		CAS 305-84-0	(272)	
3-Alanyl-histidine; H2N.CH2.CH2.CO.NH.CH(CH2.C3H3N2).COOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++ gl KNO3 25°C 0.10M U 1964LMa (67322)1415
K(Pb+HL)=3.40

C9H15N03S H2L Captopril CAS 62571-86-2 (5773)
1-(2(S)-3-Mercapto-2-methyl-1-oxopropanyl)-L-proline;

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

Pb++ gl NaCl 37°C 0.15M U K1=9.53 1985HSc (67392)1416
B3=16.49
B(Pb2L3)=23.73
B(Pb2L4)=28.58
B(PbH-1L3)=5.40

C9H15N06 H3L (7177)
2-Aminopentanoic-N,N-diethanoic acid; C3H7C(COOH)N(CH2COOH)2

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

Pb++ gl KNO3 20°C 0.10M U K1=11.49 1974RMf (67411)1417

C9H15N304 HL Gly-Gly-Pro (6982)
Glycyl-glycyl-proline;

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

Pb++ gl KNO3 20°C 0.5M U K1=3.5 1974KHb (67563)1418

C9H16N204 H2L CAS 124099-99-6 (6518)
1,4-Diazacycloheptane-N,N'-diethanoic acid;

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

Pb++ gl NaNO3 25°C 0.10M U K1=8.27 1990HNa (67615)1419

C9H16N206 H2L CAS 24709-35-8 (3274)
N-(2-(2-Ethoxycarbonylamino)ethyl)iminodiethanoic acid;

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

Pb++ gl KNO3 20°C 0.10M U K1=7.25 B2=10.52 1955SAa (67630)1420

C9H17N06 H2L CAS 58144-32-4 (6077)
N-(1,1-Di(hydroxymethyl)propyl)iminodiethanoic acid;
(HO.CH2)2C(CH2.CH3).N(CH2.COOH)2

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

Pb++ gl NaCl04 25°C 1.0M C K1=10.38 1981ASb (67830)1421

B(PbH-1L)=1.77

C9H17N3O5 H2L 2,2-DIHA CAS 709640-94-8 (9155)
N-Hydroxy-N'-[3-(hydroxymethylamino)-3-oxopropyl]-N-methyl-butanediamide;

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

Pb++ gl KNO3 25°C 0.20M C K1=10.11 2004FBa (67880)1422
B(PbHL)=15.31

C9H18N2O3 HL Ala-Leu CAS 1999-42-4 (264)
Alanyl-leucine; H2N.CH(CH3).CO.NH.CH(CH2.CH(CH3)2).COOH

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

Pb++ gl KNO3 20°C 0.5M U K1=3.5 1974KHb (67909)1423

C9H19NS2 HL CAS 150-11-8 (1154)
N,N-Di(n-butyl)dithiocarbamate; (C4H9)2N.CSSH

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

Pb++ EMF non-aq 25°C 100% U B2=15.0 1987USa (67991)1424
Medium: DMF, 0.1 M LiClO4

C9H19N2O4+ H2L (3277)
2-Di(carboxymethyl)aminoethyltrimethylammonium cation
+

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

Pb++ gl KNO3 20°C 0.10M U K1=5.40 1955SAa (68004)1425

C9H20N2O2 L 13-AneN202 CAS 60350-15-4 (5662)
1,4-Dioxa-7,11-diazacyclotridecane;

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

Pb++ gl NaNO3 25°C 0.10M U K1=5.70 1986TSa (68038)1426

C9H20N2O4S HL HEPPS CAS 16052-06-5 (7900)
N-(2-Hydroxyethyl)piperazine-N'-3-propanesulfonic acid;

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

Pb++ gl KNO3 25°C 0.10M C K1=3.05 2001SBa (68044)1427

Additional method: voltammetry.

C9H20N2O5S HL HEPPSO CAS 68399-78-0 (2011)
N-(2-Hydroxyethyl)piperazine-N'-(2-hydroxypropanesulfonic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=2.56	2000SCb (68054)	1428

C9H20N2S		L					CAS 35700-30-2	(2571)	
N,N'-Dibutylthiocarbamide; C4H9.NH.CS.NH.C4H9									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	alc/w	25°C	80%	U	I	K1=0.60 B2=1.30 B3=2.70 B4=3.60 B5=4.26 B6=4.90	1976FFa (68068)	1429

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

C9H21NO2		L					(6451)		
N,N-Di(2-hydroxypropyl)(1-methylethyl)amine; CH3.CH(CH3)N(CH2.CH(OH)CH3)2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	oth/un	25°C	?	C		K1=4.14	1991DMa (68137)	1430

C9H21N3O		L					(2479)		
1-Oxa-4,7,11-triazacyclotridecane; cyclo(-O.(CH2.CH2.NH)2.CH2.CH2.CH2.NH.CH2.CH2-)									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	U		K1=8.84 B(PbH-1L)=-0.5 K(PbL+OH)=4.48	1991ACa (68205)	1431

Pb++	gl	NaNO3	25°C	0.10M	U		K1=8.68	1986TSa (68206)	1432

C9H22N4		L					CAS 295-14-7	(9)	
1,4,7,10-Tetraazacyclotridecane; cyclo(-(NH.CH2.CH2.)4.CH2-)									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	U		K1=13.48	1985THb (68249)	1433

C9H24N3O6P3		H3L					(7110)		
1,4,7-Triazacyclononane-1,4,7-triyltrimethylenetris(phosphinic acid);									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=12.519	1995BLa (68292)	1434

C9H24N3O9P3		H6L			NOTPH		CAS 83843-39-3	(224)	

1,4,7-Triazacyclononane-N,N',N''-tris(methylenephosphonic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	gl	KCl	25°C	1.0M	U			K1=22.1 K(Pb+HL)=15.6	1984KMa (68325)	1435
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C9H24N4		L						CAS 4605-14-5	(1797)	
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1,5,9,13-Tetraazatridecane; H2N.(CH2)3.NH.(CH2)3.NH.(CH2)3.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	gl	NaClO4	20°C	0.10M	U			B(PbH2L)=25.90	1991WBa (68364)	1436
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C10H6O3		HL						CAS 83-72-7	(3294)	
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2-Hydroxy-1,4-naphthoquinone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	con	oth/un	25°C	?	U			B2=8.94	1971JSa (68462)	1437
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C10H7NO2		HL						CAS 131-91-9	(2668)	
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1-Nitroso-2-naphthol, alpha-Nitroso-beta-naphthol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	gl	diox/w	30°C	75%	U			K1=9.73 B2=17.31	1957CFa (68584)	1438
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C10H7NO2		HL						CAS 132-53-6	(2524)	
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2-Nitroso-1-naphthol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	gl	diox/w	30°C	75%	U			K1=8.93 B2=16.07	1957CFa (68652)	1439
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C10H7NO2		HL						CAS 93-10-7	(2209)	
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Quinoline-2-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	gl	KNO3	25°C	0.10M	U			K1=4.0	1957SYa (68716)	1440
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Pb++	gl	oth/un	25°C	0.0	U			K1=3.95 B2=7.02	1955LUa (68717)	1441
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C10H7NO2		HL						CAS 86-59-9	(873)	
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Quinoline-8-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	gl	diox/w	25°C	50%	U		K1=4.5		1955HCb (68768)1442
Pb++	gl	oth/un	25°C	0.0	U		K1=2.45	B2=5.93	1955LUa (68769)1443

C10H7N05S		H2L					CAS 3682-32-4		(1812)
2-Nitroso-1-hydroxynaphthalene-4-sulfonic acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference ExptNo
Pb++	sp	oth/un	25°C	0.0	U	I	K1=4.74		1966MAg (68891)1444
K(Pb+HL=PbL+H)=1.76+2.036sqrtI/(1+0.95sqrtI)-0.04I									

C10H7N08S2		H3L					Nitroso-R acid	CAS 525-05-3	(1811)
1-Nitroso-2-hydroxynaphthalene-3,6-disulfonic acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference ExptNo
Pb++	gl	NaCl04	10°C	0.10M	U	H	K1=5.66	B2=8.83	1979GBF (69022)1445
Pb++	gl	KCl	25°C	0.10M	U	I	K1=4.64	B2=7.37	1966MAf (69023)1446
At I=0: K1=6.07, B2=8.34									

C10H8N2		L					2,2'-Bipyridyl	CAS 366-18-7	(25)
2,2'-Bipyridine; (C5H4N)2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference ExptNo
Pb++	gl	KN03	25°C	0.10M	U	M	K1=3.08		1987ZLa (69632)1447
B(PbL(Mal))=6.02									
Pb++	gl	NaN03	20°C	0.10M	U		K1=2.9		1963ANg (69633)1448
Pb++	sp	oth/un	27°C	0.50M	U		K1=3.0		1955SKa (69634)1449

C10H8O8S2		H4L					Chromotropic ac	CAS 148-25-4	(1875)
1,8-Dihydroxynaphthalene-3,6-disulfonic acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference ExptNo
Pb++	gl	NaN03	25°C	0.10M	U		K1=11.17		1990HWa (69964)1450

C10H9NO		HL					8-OH-Quinaldine	CAS 826-81-3	(998)
2-Methyl-8-hydroxyquinoline;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference ExptNo
Pb++	gl	diox/w	25°C	50%	U		K1=9.97	B2=17.18	1968GFa (70053)1451
Pb++	cal	diox/w	25°C	50%	U	H			1968GFa (70054)1452
DH(K1)=-26.3 kJ mol-1, DS=104.5 J K-1 mol-1; DH(B2)=-57.3, DS=138									

Pb++ gl diox/w 25°C 50% U K1=10.30 B2=18.50 1954JFa (70055)1453

C10H9NO HL CAS 3846-73-9 (3320)
8-Hydroxy-4-methylquinoline;

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

Pb++ gl diox/w 25°C 50% U H K1=10.46 B2=18.55 1968GFa (70097)1454
Medium: 50% dioxan, 0.1 M NaClO4. By calorimetry: DH(K1)=-28.4 kJ mol⁻¹,
DS=104 J K⁻¹ mol⁻¹; DH(B2)=-64.4, DS=138

Pb++ gl diox/w 25°C 50% U K1=11.11 B2=19.24 1954JFa (70098)1455

C10H9NO L CAS 938-33-0 (3322)
8-Methoxyquinoline;

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

Pb++ gl oth/un 25°C 0.10M U K1=1.1 1964PCa (70107)1456

C10H9NO3S2 HL (7206)
6-Methyl-5-sulfo-8-mercaptoquinoline;

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

Pb++ sp oth/un 20°C 0.10M U K1=10.0 B2=16.45 1985DAb (70178)1457

C10H9NO8 H2L CAS 83785-11-9 (685)
2-Nitro-1,4-di(carboxymethoxy)benzene; O2N.C6H3.(OCH2COOH)2

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

Pb++ EMF none 30°C 0.0 U K1=3.45 1985TZa (70238)1458

Pb++ gl oth/un 30°C ? U K1=3.48 1985TZa (70239)1459

C10H9NS HL CAS 10222-10-3 (1029)
2-Methyl-8-mercaptoquinoline;

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

Pb++ gl non-aq 25°C 100% U K1=8.8 B2=14.1 1984UBa (70266)1460
Medium: DMF, 0.1 M LiClO4. Similar data to reference UB83a

Pb++ EMF non-aq 25°C 100% U K1=8.8 B2=14.10 1983UBa (70267)1461
Medium: DMF, 0.1 M LiClO4

C10H9NS HL CAS 13982-83-7 (1030)
4-Methyl-8-mercaptoquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	non-aq	25°C	100%	U		K1=8.4 B2=13.5	1984UBa (70278)	1462
Medium: DMF, 0.1 M LiClO4. Similar data to reference UB83a									
Pb++	EMF	non-aq	25°C	100%	U		K1=8.4 B2=13.50	1983UBa (70279)	1463
Medium: DMF, 0.1 M LiClO4									

C10H9NS		HL					CAS 15759-04-3	(1031)	
6-Methyl-8-mercaptoquinoline;									
Pb++	gl	non-aq	25°C	100%	U		K1=9.4 B2=16.3	1984UBa (70292)	1464
Medium: DMF, 0.1 M LiClO4. Similar data to reference UB83a									
Pb++	EMF	non-aq	25°C	100%	U		K1=9.4 B2=16.30	1983UBa (70293)	1465
Medium: DMF, 0.1 M LiClO4									

C10H9NS		HL					CAS 15759-05-4	(1032)	
7-Methyl-8-mercaptoquinoline;									
Pb++	gl	non-aq	25°C	100%	U		K1=10.6 B2=17.3	1984UBa (70304)	1466
Medium: DMF, 0.1 M LiClO4. Similar data to reference UB83a									
Pb++	EMF	non-aq	25°C	100%	U		K1=10.6 B2=17.30	1983UBa (70305)	1467
Medium: DMF, 0.1 M LiClO4									

C10H9NS2		HL					CAS 32433-56-0	(5691)	
5-Thiomethyl-8-mercaptoquinoline;									
Pb++	EMF	non-aq	25°C	100%	U		K1=7.3 B2=12.20	1986UBa (70310)	1468
Medium: dimethylformamide, LiClO4									

C10H9NS2		HL					CAS 91330-90-0	(5693)	
7-Thiomethyl-8-mercaptoquinoline;									
Pb++	EMF	non-aq	25°C	100%	U		K1=8.8 B2=15.90	1986UBa (70315)	1469
Medium: dimethylformamide, LiClO4									

C10H10N2		L					CAS 26628-04-2	(3300)	
8-Aminoquinaldine (8-Amino-2-methylquinoline)									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	oth/un	25°C	0.10M	U		K1=1	1964PCa (70527)	1470

C10H10N4O2S		HL		Sulfadiazine			CAS 68-35-9	(1885)	
4-Amino-N-(2-pyrimidinyl)benzenesulfonamide; C4H3N2NHSO2C6H4NH2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	mixed	25°C	65%	U T		K1=3.63 B2=6.72	1982KNc (70618)	1471
Medium: 65% DMSO/H2O, 0.1 KNO3									

C10H10O5		HL					CAS 13522-48-0	(4722)	
3-Mercapto-1-phenylbut-2-en-1-one; C6H5.CO.CH:CH.C(SH).CH3									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	30°C	75%	U I		K1=6.34 B2=12.13	1969LSa (70638)	1472
Medium: 75% dioxan, 0.018 M NaCl									
In 0.017 NaClO4, 74.5% dioxan: K1=8.26, K2=7.16									

C10H10O2		HL		Benzoylacetone			CAS 93-91-4	(197)	
1-Phenylbutane-1,3-dione; C6H5.CO.CH2.CO.CH3									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	30°C	75%	U		K1=8.84 B2=16.35	1953UFe (70761)	1473

C10H11NO4		H2L					CAS 1137-73-1	(2567)	
N-Phenyliminodiethanoic acid; C6H5.N(CH2.CO.OH)2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	oth/un	25°C	0.10M	U		K1=3.8	1959SYc (71007)	1474

Pb++	gl	KCl	20°C	0.10M	U		K1=3.49	1955SAa (71008)	1475

C10H11O4P		H2L					CAS 58942-13-5	(7014)	
Phenylphosphino-P,P-diethanoic acid, Diphenylphosphinediethanoic acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	0.10M	U		K1=2.93 B2=7.1	1979POa (71141)	1476

C10H12N2O		HL		Serotonin			CAS 153-98-0	(4735)	
5-Hydroxytryptamine (5-hydroxy-3-(2-aminoethyl)indole)									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	20°C	0.37M	U		K1=8.04	1971WSd (71169)	1477

K(Pb+HL)=5.02

C10H12N2O2 HL CAS 89314-29-4 (8507)

2-[(4-Methylphenyl)hydrazono]-propanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	alc/w	30°C	40%	M	M		K1=4.15 B2= 6.95 K(PbL+A)=8.84 K(PbL+en)=7.04 K(PbL+pro)=6.00 K(PbL+B)=5.32	1995RRe (71198)	1478

Medium: 40% v/v EtOH/H2O, 0.10 M KNO3. K(PbL+ala)=5.47, K(PbL+gly)=5.20.
H2A is catechol, HB is hydroxyproline.

Pb++	gl	alc/w	30°C	40%	M	M			1995RRe (71199)	1479
								K(Pb(phe)+L)=4.08 K(PbA+L)=3.85		

Medium: 40% v/v EtOH/H2O, 0.10 M KNO3. H2A is salicylic acid.

C10H12N2O4 H2L CAS 16598-05-3 (967)

2-Pyridylmethyliminodiethanoic acid; C5H4N.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	NaNO3	20°C	0.10M	C	H		K1=10.60	1981ANb (71270)	1480

DH(K1)=-23.4 kJ mol⁻¹, DS=123.0 J K⁻¹ mol⁻¹
additional method: exchange equilibria and ion selective electrode

Pb++	gl	KNO3	20°C	0.10M	U			K1=10.31	1963IFc (71271)	1481
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C10H12N2O4 HL (6004)

N-Benzyloxycarbonylglycyl hydroxamic acid; C6H5.CH2.O.CO.NH.CH2.CO.NHOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	U			K1=6.7 B2=11.0 B3=16.3	1987CSb (71304)	1482

C10H12O2 HL CAS 1946-74-3 (202)

3-Isopropyltropolone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	alc/w	25°C	50%	U			K1=5.81 B2=10.26	1955PHa (71596)	1483

Medium: 50% EtOH

Pb++	gl	diox/w	30°C	50%	U			K1=9.5 B2=16.0	1954BFb (71597)	1484
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Pb++	gl	diox/w	30°C	50%	U			K1=9.0 B2=15.7	1954BFb (71598)	1485
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C10H13NO4S H2L N-Tosylalanine (1584)
N-(4-Toluenesulfonyl)-3-aminopropanoic acid; CH3.C6H4.SO2.NH.CH2.CH2.COOH

Pb++	vlt NaNO3	25°C 0.10M U	M	K1=6.50	1996BBd (71772)1486
				K(Pb+HL)=1.21	
				K(Pb+2HL)=2.13	
				B(Pb(bpy)L)=9.21	
				K(Pb+bpy+2HL)=5.11	

C10H13N4O8P H3L IMP CAS 131-99-7 (843)
Inosine-5'-monophosphoric acid;

Pb++ gl NaNO3 25°C 0.10M M K1=3.06 2000DSb (71860)1487
K(Pb+HL)=1.30
*K(PbHL)=-4.46

C10H13N5O4 L Adenosine CAS 58-61-7 (2154)
Adenosine, Adenine-9-beta-D-ribofuranoside;

Pb++ g1 NaNO3 20°C 1.0M U K1=-0.5 1965FBa (71947)1489

C10H13N5O5 HL Guanosine CAS 118-00-3 (1402)
2-Aminopurin-6-one-9-riboside;

Pb++ gl NaNO₃ 20°C 1.0M U K1=3.5 1965FBa (72014)1490
K(Pb+HL)=0.5

C10H14N2O6 L alpha-Thymidine CAS 4449-43-8 (695)
Thymine-2-desoxyribofuranosyl-5-methyluracil;

Pb++ g1 NaNO3 20°C 1.0M U K1=4.7 1965FBa (72105)1491

C10H14N2O7 H3L CAS 95175-15-8 (5705)
2,5-Diazacyclohexanon-1-2(butane-1,4-dioic)-6-ethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	U		K1=3.45	1990VZa (72121)	1492

C10H14N5O7P		H2L		AMP-5			CAS 18422-05-4	(842)	
Adenosine-5'-monophosphoric acid, 5-Adenylic acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	M		K1=2.92 K(Pb+HL)=1.08 *K(PbHL)=-4.37	2000DSb (72482)	1493

C10H14N5O8P		H3L		GMP-5			CAS 85-32-5	(2947)	
Guanosine-5'-monophosphoric acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	M		K1=3.23 K(Pb+HL)=1.52 *K(PbHL)=-4.54	2000DSb (72592)	1494

C10H15N2O8P		H2L		TMP-5			CAS 365-07-1	(2949)	
Thymidine-5'-monophosphoric acid, Thymidylic acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	M		K(Pb+HL)=2.93	1999DSa (72703)	1495

C10H16N2O2		L					(7408)		
N-(2-Pyridylmethyl)iminodiethanol; C5H4N.CH2.N(CH2CH2.OH)2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=5.43	1986DSa (73035)	1496

C10H16N2O3S		HL		Vitamin H			CAS 58-85-5	(410)	
D-Biotin (Coenzyme R);									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	EMF	diox/w	25°C	50%	U		K1=3.46	1978SPa (73051)	1497

C10H16N2O8		H4L		EDDS			CAS 52759-67-8	(1100)	
1,2-Diaminoethane-N,N'-di-1,4-butanedioic acid; (CH2.NH.CH(COOH)CH2.COOH)2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	U		K1=11.3	1990VZa (73167)	1498

Pb++	vlt	KNO3	25°C	0.10M	U	K1=12.88 K(Pb+HL)=5.85	1973GSd (73168)	1499
Pb++	gl	KNO3	20°C	0.10M	U	K1=12.7	1968MJa (73169)	1500
By paper electrophoresis: K1=13.5								
Pb++	sp	KNO3	20°C	0.10M	U	K1=12.3	1966MSg (73170)	1501

C10H16N2O8		H4L		EDTA		CAS 60-00-4 (120)		
1,2-Diaminoethane-N,N,N',N'-tetraethanoic acid, Sequestric acid;								
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
Pb++	vlt	KNO3	25°C	0.10M	C		K1=18.01	2001CKb (74039)
Method: cyclic voltammetry. Medium: pH 10.								
Pb++	vlt	oth/un	RT	0.05M	C		K1=18.10	1995TUa (74040)
Method: potentiometric stripping analysis. Medium: 0.05 M acetate, pH 4.5								
Pb++	cal	none	25°C	0.0	C	H		19900Ba (74041)
Medium: pH 8.7. DH(K1)=-45.59 kJ mol-1.								
Pb++	vlt	KCl	30°C	0.30M	U		K1=18.32	1988HPa (74042)
Pb++	gl	KNO3	25°C	0.10M	U		K1=17.88	1983FSa (74043)
Pb++	gl	NaCl	37°C	0.15M	C		K1=16.62 B(PbHL)=21.10 B(PbH2L)=23.03	1983WWa (74044)
Pb++	EMF	KCl	20°C	0.10M	C		K1=18.2	1981SFa (74045)
Method: Pt/H2 electrode.								
Pb++	sol	KNO3	25°C	1.00M	U		K(PbL+H)=2.54 K(PbHL+H)=1.89 K(PbH2L+H)=1.34	1979JPb (74046)
Pb++	vlt	KNO3	20°C	0.10M	U		K1=18.20	1978NLb (74047)
Pb++	gl	NaCl04	25°C	1.00M	C		K1=16.50 B(PbHL)=19.78 B(PbH2L)=21.35 B(PbH3L)=22.50	19770Ma (74048)
Pb++	gl	NaCl04	25°C	3.00M	C		K1=15.19 B(PbHL)=18.01	1976Cwa (74049)
Pb++	vlt	NaN03	25°C	0.30M	U			1974KNc (74050)

$$K(\text{CoLC1+Pb})=1.78$$
$$K(\text{CoLC1+Pb})=1.78$$
$$K(\text{CoLC1+Pb})=1.78$$

K1=17.04

$$K(Pb+HL)=9.68$$
$$K(\text{Pb} + \text{H}_2\text{L}) = 6.22$$
$$K(PbL+H)=2.49$$
$$K(\text{PbL}+\text{SCN})=1.10$$
$$K(\text{PbA} + \text{L} = \text{PbL} + \text{A}) = -0.96$$

Method: polarimetry. H4A=diaminopropanetetraethanoic acid

K1=>18

$$K1=17.76$$

K1=18.04

$$K(Pb+HL)=10.61$$

DH(K1)=-55.2 kJ mol⁻¹, DS=159 J K⁻¹ mol⁻¹

K1=15.99

$$K(Pb+HL)=12.00$$

T K1=18.32

$$K(\text{Pb}^{2+}(\text{s}) = \text{Pb} + \text{PbL}) = -5.76$$

$\Delta H(K1) = -58.9 \text{ kJ mol}^{-1}$, $\Delta G = -101.17$, $\Delta S = 144 \text{ J K}^{-1} \text{ mol}^{-1}$

Method: H electrode. DS(K1)=146 J K⁻¹ mol⁻¹

Pb++ EMF NaClO4 25°C 0.10M U T K1=17.9 1956SRb (74066)1529

Pb++ cal oth/un 25°C 0.05M U H 1954CHa (74067)1530
Medium: Pb(NO3)2. DH(K1)=-54.7 kJ mol⁻¹, DS=146 J K⁻¹ mol⁻¹

Pb++ gl KCl 20°C 0.10M U I T K1=18.3 1954SGa (74068)1531
By polarography, 0.1 M KNO3, K1=18.04, K(Pb+HL)=10.61, K(PbL+H)=5.02

Pb++ sp KNO3 30°C 0.10M U I K1=16.8 1953HMa (74069)1532
In 0.1 M KClO4 K1=17.2

Pb++ sp oth/un ? 0.10M U K1=17.7 1952MPa (74070)1533

C10H16O8P2 H4L (6907)
1,2-Diphosphinoethane-P,P,P'-tetraethanoic acid;
(HOOC.CH2)2P.CH2.CH2.P(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	0.10M	C		K1=6.67 B(PbHL)=10.08 B(PbH2L)=13.28 B(Pb2L)=9.77	1992PPb (74954)	1534

Additional method: Pb(Hg) electrode

Pb++ gl NaClO4 25°C 0.10M C K1=6.67 1982PPc (74955)1535
B(PbHL)=10.08
B(PbH2L)=13.28

C10H17NO5 H2L (3917)
N-(Tetrahydropyran-2-ylmethyl)iminodiethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	20°C	0.10M	U		K1=10.30 K(Pb+HL)=5.16	1963IFa (75005)	1536

C10H17N3O6S H3L Glutathione CAS 70-18-8 (333)
Glutamyl-cysteinyglycine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	0.10M	U	TIH	K1=7.481	2001SGd (75135)	1537

Data for 0.05-0.2 M NaClO4 and 15-45 C. DH(K1)=-32.0 kJ mol⁻¹, DS(K1)=-43 J K⁻¹ mol⁻¹. At I=0, K1=7.860. Also data for MeOH/H2O, EtOH/H2O, DMF/H2O.

Pb++ gl NaClO4 25°C 3.00M C K1=10.57 B2=15.00 1976Cwa (75136)1538
B(PbHL)=17.14
B(PbHL2)=24.66

B(PbH2L2)=32.10

B(PbH-1L2)=4.50

Pb++ gl NaClO4 25°C 3.0M C T H K1=9.91 1976CWb (75137)1539

B(PbHL)=16.82

B(PbHL2)=23.40

B(PbH2L2)=32.31

DH(K1)=-68 kJ mol⁻¹, DH(PbHL)=-82, DH(PbHL2)=-101, DH(PbH2L2)=143. DS1=-37

Pb++ gl KNO3 25°C 0.15M U K1=10.60 1955LMa (75138)1540

C10H18N2O3 HL CAS 533-48-2 (411)

D/L-Desthiobiotin, 5-Methyl-2-oxo-4-imidazoline-caproic acid;

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

Pb++ EMF diox/w 25°C 50% U K1=3.48 1978SPa (75181)1541

C10H18N2O4 H2L CAS 124125-60-6 (914)

1,5-Diazacyclooctane-N,N'-diethanoic acid;

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

Pb++ gl NaNO3 25°C 0.10M U K1=8.65 1990HNa (75204)1542

C10H18N2O4S H2L (6638)

1-Thia-4,7-diazacyclononane-N,N'-diethanoic acid;

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

Pb++ gl KNO3 25°C 0.10M C K1=12.96 1993WLa (75218)1543

K(PbL+OH)=1.1

C10H18N2O5 H2L (5608)

1-Oxa-4,7-diazacyclononane-N,N'-diethanoic acid;

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

Pb++ gl KNO3 25°C 0.10M U K1=12.00 1990CCa (75237)1544

C10H18N2O7 H3L HEDTA CAS 150-39-0 (392)

N-(Hydroxyethyl)diaminoethane-N,N',N'-triethanoic acid;

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

Pb++ gl KNO3 25°C 0.10M U K1=15.5 1983FSa (75466)1545

Pb++ sp NaClO4 20°C 0.10M U K1=14.92 1976KNa (75467)1546

K(Pb+HL)=8.31

Pb++ gl NaClO4 25°C 1.00M C K1=14.83 19760Sb (75468)1547
 B(PbHL)=16.97
 B(PbH2L)=17.89
 B(PbH3L)=18.67

Pb++ vlt NaNO3 25°C 0.30M U K1=8.79 1974KNc (75469)1548

Pb++ sp oth/un 20°C dil U K1=15.17 1972Mce (75470)1549
 K(Pb+HL)=7.38

By indirect method: K1=15.17 & 15.55; K(Pb+HL)=7.38

Pb++ sp NaClO4 25°C 1.0M U M 1970HSc (75471)1550
 K(PbL+NH3)=1.62

Pb++ sp NaClO4 20°C 0.10M U K1=15.99 1969NKa (75472)1551

Pb++ cal KNO3 25°C 0.10M U H 1965WHa (75473)1552
 DH(K1)=-52.7 kJ mol⁻¹, DS=121 J K⁻¹ mol⁻¹

Pb++ EMF KNO3 25°C 0.10M U K1=15.5 1960HRa (75474)1553

C10H19NO4 H2L (3328)
 N-(3,3-Dimethylbutyl)iminodiethanoic acid; (CH3)3C.CH2.CH2.N(CH2.COOH)2

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

Pb++ gl KNO3 20°C 0.10M U K1=8.16 B2=12.53 1955SAa (75641)1554

C10H19N3O5 H2L 2,3-DIHA CAS 709640-93-7 (9156)
 N-Hydroxy-N'-[4-(hydroxymethylamino)-4-oxobutyl]-N-methyl-butanediamide;

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

Pb++ gl KNO3 25°C 0.20M C K1=9.64 2004FBa (75709)1555
 B(PbHL)=15.31

C10H20N2O4S2 H4L EDDASS (6912)
 N,N'-Bis(2-mercaptoethyl)diaminoethane-N,N'-diethanoic acid;
 (-CH2.N(CH2.CH2.SH)CH2.COOH)2

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

Pb++ gl KNO3 25°C 0.10M C K1=20.28 1995SMb (75817)1556
 K(PbL+H)=5.41

C10H20N2O6 H2L (7208)
 1,2-Diaminoethane-N,N'-bis(3-hydroxy-2-butanoic acid)); (CH2NHCH(COOH)CH(OH)CH3)2

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

Pb++ gl KNO3 20°C 0.10M U K1=10.97 1970DKa (75835)1557
By spectrophotometry: K1=11.15 in 0.1 M NaClO4

C10H20N2O6 H2L CAS 96817-35-5 (4755)

1,2-Diaminoethane-N,N'-bis(4-hydroxy-2-butanoic acid);

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

Pb++ sp oth/un 20°C 0.10M U K1=10.97 1972DKa (75847)1558

K(PbOH+L)=3.65

C10H20N2O6 H2L CAS 5616-21-7 (570)

N,N'-Bis(2-hydroxyethyl)diaminoethane-N,N'-diethanoic acid;

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

Pb++ vlt NaClO4 25°C 0.40M U K1=11.1 1983MMa (75858)1559

K(Pb+HL)=4.45

C10H20O5 L 15-Crown-5 CAS 33100-27-5 (576)

1,4,7,10,13-Pentaoxacyclopentadecane; cyclo(-(O.CH2.CH2)5-)

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

Pb++ ISE alc/w 25°C 100% C IH T K1=3.6 2003ADa (76098)1560

IUPAC Tentative. Medium: 0-0.1 M various. DH(K1)=-27.2 kJ mol⁻¹

In H2O: K1=2.0, DH(K1)=-13.6

Pb++ con mixed 25°C 90% C K1=2.85 2003ISa (76099)1561

Medium: 90% v/v DMSO/H2O.

Pb++ cal none 25°C dil C H K1=1.81 2002BSc (76100)1562

Self medium, <0.005 M. DH(K1)=-10.1 kJ mol⁻¹, DS(K1)=0.7 J K⁻¹ mol⁻¹.

Pb++ con alc/w 25°C 40% C K1=2.87 2002ISa (76101)1563

Medium: 40% EtOH/H2O.

Pb++ cal none 25°C 0.03M C T H K1=1.82 2002VOa (76102)1564

DH(K1)=-11.2 kJ mol⁻¹

Ionic strength is provided by Pb(NO3)2 used: 0.007-0.05 M.

for 35 C K1=1.74; DH(K1)=-9.01; for 45 C K1=1.69, DH(K1)=-8.79

Pb++ vlt mixed 25°C 90% C K1=5.1 1996SSc (76103)1565

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

Pb++ vlt alc/w 25°C 100% C K1=3.36 1987CBd (76104)1566

Medium: methanol, 0.10 M Et4NI or Bu4NClO4. Method: polarography.

Pb++ cal non-aq 25°C 100% C H K1=3.56 B2= 5.56 1986ICa (76105)1567

Medium: MeOH. DH(K1)=-28.4 kJ mol⁻¹, DS(K1)=-27 J K⁻¹ mol⁻¹;

DH(K2)=-21.1, DS(K2)=-32.5.

Pb++ gl R4N.X 25°C 0.10M U K1=0.95 1985BFa (76106)1568

Pb++ cal alc/w 25°C 100% U H T K1=3.92 1985BUa (76107)1569
Medium: MeOH

Pb++ ISE non-aq 25°C 100% U B2=16.55 1982MDa (76108)1570
Medium: propylene carbonate

Pb++ vlt R4N.X 25°C 0.10M U T K1=2.05 1978KKe (76109)1571

Pb++ cal oth/un 25°C 0.10M U H T K1=1.85 1976ITb (76110)1572
DH=-13.6 kJ mol⁻¹.

C10H20S4 L 14-Ane-S4 CAS 24194-61-4 (175)
1,4,8,11-Tetrathiacyclotetradecane; cyclo(-(S.CH2.CH2)2.CH2.(S.CH2.CH2)2.CH2-)

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

Pb++ vlt R4N.X 25°C 0.2M U K1=9.7 1999BBc (76159)1573
Medium: 0.2 M Bu4NPF6.

C10H21NO3 L (6568)
Trans-1-(bis(2-hydroxyethyl)amino)-2-hydroxycyclohexane;

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

Pb++ gl NaNO3 25°C 0.10M C K1=3.72 B2=6.87 1991DCa (76174)1574

C10H21NO4 L CAS 66943-05-3 (5818)
1-Aza-4,7,10,13-tetraoxacyclopentadecane;

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

Pb++ gl alc/w 25°C 95% U K1=6.0 1992BDa (76189)1575
Medium: 95% MeOH, 0.1 M Et4NClO4

C10H22N2OS2 L CAS 40236-04-2 (2343)
1-Oxa-4,13-diaza-7,10-dithiacyclopentadecane;

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

Pb++ gl NaClO4 25°C 0.10M U H K1=5.61 1979ASb (76240)1576
Also DH values

Pb++ gl NaClO4 25°C 0.10M U K1=6.78 1977LAa (76241)1577

Pb++ gl NaClO4 25°C 0.10M U K1=5.67 1975ASc (76242)1578

C10H22N2OS2 L CAS 40236-30-4 (5395)
 1-Oxa-4,13-dithia-7,10-diazacyclopentadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	0.10M	U	H	K1=6.78	1979ASb (76252)	1579

Also DH values

Pb++	cal	NaClO4	25°C	0.10M	U	H	K1=6.78	1978ASb (76253)	1580
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DH=-39.8 kJ mol⁻¹; DS=-4.0 J K⁻¹ mol⁻¹

 C10H22N2O3 L Cryptand 2,1 CAS 31249-95-3 (835)
 4,7,13-Trioxa-1,10-diazacyclopentadecane (Trioxa(2,1)cryptand);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	cal	none	25°C	dil	C	H		2002BSc (76331)	1581

Self medium, <0.005 M. DH(K1)=-42.8 kJ mol⁻¹, DS(K1)=-36.9 J K⁻¹ mol⁻¹.

Pb++	gl	R4N.X	25°C	0.05M	C		K1=5.6	1997BCc (76332)	1582
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Medium: 0.05 M Me4NClO4

Pb++	ISE	non-aq	25°C	100%	U		K1=3.57	1982NSb (76333)	1583
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Medium: DMSO, 0.1 M Et4NClO4

Pb++	sp	non-aq	25°C	100%	U		K1=8.64 B(Pb2L)=12.30	1981SMb (76334)	1584
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In propylene carbonate, I=0.01 M (Et4NClO4)

Pb++	gl	alc/w	25°C	100%	C		K1=7.87 B(Pb2L)=11.36	1980SAa (76335)	1585
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Medium: MeOH, 0.05 M Et4NClO4

Pb++	sp	alc/w	25°C	100%	U		K1=7.86 B(Pb2L)=12.08	1980SAa (76336)	1586
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Medium: MeOH, 0.05 M Et4NClO4

Pb++	gl	R4N.X	25°C	0.10M	C		K1=5.85	1977ASc (76337)	1587
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 C10H22N2S2 CAS 65113-46-4 (5985)
 N,N'-Dimethyl-1,7-diaza-4,10-dithiacyclododecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	0.10M	U		K1=6.16	1985SLa (76374)	1588

 C10H22N4 L CAS 82413-08-9 (6153)
 1,4,7,10-Tetraaza-bicyclo[8.2.2]tetradecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++      gl  NaNO3   25°C 0.10M U      K1=11.71      1988HDa (76387)1589
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Pb++      gl  NaNO3   25°C 0.10M U      K1=11.71      1987HEa (76388)1590
*****
C10H22O5      L      Tetraglyme      CAS 143-24-8 (121)
2,5,8,11,14-Pentaoxapentadecane; (CH3.0.CH2.CH2.0.CH2.CH2.)20
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      cal alc/w  25°C 100% U  H      K1=2.06      1985BUa (76467)1591
Medium: MeOH. DH(K1)= -7.2 kJ mol-1
-----
Pb++      vlt R4N.X  25°C 0.10M C  H      K1=0.5      B2=1.6      1976KKf (76468)1592
DH(K1)=-13.4 kJ mol-1, DS=-35 J K-1 mol-1. DH(B2)=-26.8, DS=-60
*****
C10H22O6      L      Penta-Et-Glycol CAS 4792-15-8 (5466)
1,14-Dihydroxy-3,6,9,12,-Tetraoxatetradecane; H0.(CH2.CH2.0)4.CH2.CH2.OH
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      cal alc/w  25°C 100% U  H      K1=3.32      1985BUa (76482)1593
Medium: MeOH. DH(K1)=-31.4 kJ mol-1
*****
C10H23NO2      L      (6452)
N,N-Di(2-hydroxypropyl)(1,1-dimethylethyl)amine; (CH3)3C.N(CH2.CH(OH)CH3)2
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      gl  oth/un  25°C   ?  C      K1=4.33      1991DMa (76487)1594
*****
C10H23N3O      L      (6453)
1-Oxa-4,8,12-triazacyclotetradecane;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      gl  KNO3    25°C 0.10M U      K1=7.30      1991ACa (76509)1595
B(PbH-1L)=-1.6
K(PbL+OH)=4.92
*****
C10H23N3O2      L      CAS 60350-18-7 (5875)
1,4-Dioxa-7,10,13-triazacyclopentadecane;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      gl  NaNO3   25°C 0.10M C      K1=10.07      1989HBa (76525)1596
*****
C10H24N2O5S2      L      CAS 68704-79-0 (1787)
8-Oxa-2,14-diaza-5,11-dithiapentadecane;
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	0.10M	U	H	K1=7.49 B(PbHL)=14.11	1979ASb (76560)	1597

Also DH values

Pb++	cal	NaClO4	25°C	0.10M	U	H	K1=7.49	1978ASb (76561)	1598
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DH=-39.9 kJ mol⁻¹; DS=9.4 J K⁻¹ mol⁻¹

Pb++	gl	NaClO4	25°C	0.10M	U		K1=7.35 B(PbHL)=14.56	1975ASb (76562)	1599
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C10H24N2O8P2 H4L CAS 230306-63-5 (7192)
4,10-Bis(phosphonomethyl)-1,7-dioxo-4,10-diazacyclododecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=13.49 B(PbHL)=19.86 B(PbH2L)=25.12 B(Pb2L)=18.36 B(Pb2H-1L)=10.12	2000PSa (76590)	1600

Medium: 0.10 M [Et4N]NO3. B(Pb2H-2L)=-0.35.

C10H24N4 L iso-Cyclam CAS 52877-36-8 (142)
1,4,7,11-Tetraazacyclotetradecane; cyclo(-(HNCH2.CH2)3.CH2.NH.CH2.CH2.CH2-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	U		K1=10.86	1991LHa (76617)	1601

C10H24N4 L Cyclam CAS 295-37-4 (8)
1,4,8,11-Tetraazacyclotetradecane; cyclo(-(HN.CH2.CH2.NH.(CH2)3)2-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	R4N.X	25°C	0.2M	U		K1=31.0	1999BBc (76671)	1602

Medium: 0.2 M Bu4NPF6.

Pb++	gl	KCl	25°C	0.50M	U		K1=10.8	1997BLd (76672)	1603
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Pb++	gl	NaNO3	25°C	0.10M	U		K1=10.83	1985THb (76673)	1604
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C10H24N4 L CAS 91135-29-4 (6516)
1,5-Bis(2-aminoethyl)-1,5-diazacyclooctane; NH2.CH2CH2.N(CH2CH2CH2)2N.CH2CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	U		K1=8.47	1990HNa (76691)	1605

C10H24N4O L (7051)

1-Oxa-4,7,10,13-tetraazacyclopentadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	NaNO3	25°C	0.10M	U		K1=12.28	1990HWa (76711)	1606
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C10H25N5 L 15-Ane-N5 CAS 295-64-7 (99)

1,4,7,10,13-Pentaazacyclopentadecane; cyclo(-(HN.CH2.CH2)5-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	NaClO4	25°C	0.20M	M	H	K1=17.3	1978KKb (76738)	1607
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B(PbHL)=21.1

DH1=-41.8 kJ mol-1

C10H26N2O12P4 H8L CAS 28698-30-8 (3342)

N,N,N',N'-Tetra(phosphomethyl)cyclohexane-1,2-diamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	oth/un	25°C	0.10M	U		K1=7.99	1959BYa (76761)	1608
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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
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Pb++	gl	NaClO4	20°C	0.10M	U			1991WBa (76796)	1609
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B(PbH2L)=25.98

C10H28N6 L CAS 4067-16-7 (3903)

1,4,7,10,13,16-Hexaazahexadecane (pentaethylenehexamine):

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	vlt	oth/un	25°C	1.0M	U		K1=11.0	1962JSa (76846)	1610
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Medium: NH3

C10H28N6 L PENTEN CAS 4097-90-9 (3315)

N,N,N',N'-Tetra-(2-aminoethyl)diaminoethane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	NaNO3	25°C	1.0M	C		K1=11.64	2001GLb (76880)	1611
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B(PbHL)=19.56

B(PbH2L)=27.25

C11H8N6O HL (7009)

1-(5-Tetrazolyl)azo-2-naphthol;

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      sp  NaClO4 20°C 0.10M U      K1=8.37      1978SSf (76928)1612
*****
C11H8N6O7S2      H4L      CAS 35322-95-7 (909)
3-Hydroxy-4-(1H-tetrazol-5-ylazo)-2,7-naphthalenedisulfonic acid;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      sp  NaClO4 25°C 0.10M U      K1=8.91      1978BEa (76941)1613
*****
C11H8O2      HL      (3345)
4,5-Benzotropolone;
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      gl  diox/w 30°C 50% U      K1=8.8      B2=15.2      1954BFc (76978)1614
*****
C11H8O3S      HL      CAS 32267-05-3 (3353)
2-Furoyl-2-thenoylmethane; C4H3O.CO.CH2.CO.C4H3S
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      gl  diox/w 30°C 75% U      K1=9.10      B2=17.49      1953UFe (77160)1615
*****
C11H9NO2      HL      CAS 92609-55-3 (4827)
5-Acetyl-8-hydroxyquinoline;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      gl  diox/w 25°C 60% U      K1=9.04      B2=15.49      1973SCd (77332)1616
Medium: 60% dioxan, 0.1 M NaClO4
*****
C11H9N3O      HL      CAS 10335-29-2 (3937)
2-(2'-Pyridylazo)phenol; C5H4N.N:N.C6H4.OH
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      gl  alc/w 25°C 50% U      K1=9.4      B2=14.20      1967ANa (77460)1617
Medium: 50% MeOH, 0.1 M NaClO4
*****
C11H9N3O2      H2L      PAR      CAS 1141-59-9 (636)
4-(2'-Pyridylazo)-1,3-dihydroxybenzene; C5H4N.N:N.C6H3(OH)2
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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Pb++      sp  NaNO3 25°C 0.10M U      K1=10.96      1978KLb (77569)1618
K(PbL+H)=6.43
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Pb++ sp NaClO4 20°C 0.10M U 1966HSb (77570)1619
K(Pb+HL)=11.9

Pb++ gl oth/un 25°C 0.10M U K1=8.6 B2=15.70 1962GNa (77571)1620
K1=11.2 also given

Pb++ sp oth/un ? ? U B2=26.6 1961HSb (77572)1621
K(Pb+HL)=12.9

Pb++ sp oth/un ? 0.01M U 1959KLa (77573)1622
K(?)

C11H10N2O2 HL CAS 75793-37-6 (1669)
N-(8-Quinolyl)aminoethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ gl NaClO4 25°C 0.10M U K1=3.0 B2=5.70 1969TKa (77680)1623

C11H10N3OClS HL (1294)
2-(4',5'-Dimethyl-2'-thiazolylazo)-4-chlorophenol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ gl diox/w 25°C 60% U K1=7.46 B2=12.20 1981KTa (77691)1624

C11H11NO6 H3L CAS 1147-65-5 (425)
N-(2'-Carboxyphenyl)iminodiethanoic acid; HOOC.C6H4.N(CH2.COOH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ sp NaNO3 20°C 0.10M U 1961DSa (77835)1625
K(?)=6.14

C11H11NS HL CAS 54128-50-6 (1033)
2,7-Dimethyl-8-mercaptoquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ gl non-aq 25°C 100% U K1=10.0 B2=16.5 1984UBa (77861)1626
Medium: DMF, 0.1 M LiClO4. Similar data to reference UB83a

Pb++ EMF non-aq 25°C 100% U K1=10.0 B2=16.50 1983UBa (77862)1627
Medium: DMF, 0.1 M LiClO4

C11H11NS2 HL CAS 54487-80-8 (5694)
2-Methyl-(5-thiomethyl)-8-mercaptoquinoline;

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

Pb++ EMF non-aq 25°C 100% U K1=8.0 B2=14.50 1986UBa (77867)1628

Medium: dimethylformamide, LiClO4

C11H12N2O2 HL Tryptophan CAS 73-22-3 (3)

2-Amino-3-(3-indolyl)propanoic acid; H2N.CH(CH2.C8H6N)COOH

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

Pb++ vlt KNO3 30°C 1.0M C K1=5.38 B2= 7.93 1989SCc (78227)1629

Method: polarography. Medium pH >5.6

Pb++ gl NaClO4 25°C 3.0M U K1=4.89 B2=10.27 1973CTb (78228)1630

Pb++ gl NaNO3 20°C 0.37M U K1=5.07 B2=9.62 1971WSa (78229)1631

C11H12N2O3 H2L CAS 114-03-4 (4839)

5-Hydroxytryptophan;

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

Pb++ gl NaNO3 20°C 0.37M U 1971WSd (78292)1632

K(Pb+HL)=4.0

K(Pb+2HL)=8.38

C11H14N2O4 H2L (1880)

N-(6-Methyl-2-pyridylmethyl)iminodiethanoic acid; CH3C5H3NCH2N(CH2COOH)2

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

Pb++ gl NaNO3 20°C 0.10M C H K1=10.15 1981ANb (78890)1633

DH(K1)=-18.4 kJ mol⁻¹, DS=131 J K⁻¹ mol⁻¹

additional method: exchange equilibria and ion selective electrode

C11H16N2S2 L CAS 771500-52-8 (9193)

2,8-Dithia-5-aza-2,6-pyridinophane;

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

Pb++ gl R4N.X 25°C 0.10M C K1=8.45 2004BBe (79119)1634

Medium: 0.1 M Me4NO3

C11H18N2O8 H4L PDTA CAS 4408-81-5 (1655)

1,2-Diaminopropane-N,N,N',N'-tetraethanoic acid;

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

Pb++ vlt KNO3 20°C 0.10M U K1=13.86 1981NSc (79321)1635

Pb++ vlt KNO3 20°C 0.10M U K1=18.97 1978NLb (79322)1636

Pb++ vlt KNO3 25°C 0.20M U M K1=18.69 19650Ga (79323)1637
Exchange complexes with Zn and EDTA

Pb++ vlt KNO3 20°C 0.10M U K1=18.97 1964ICb (79324)1638

C11H18N2O8 H4L CAS 4408-81-5 (923)
1,3-Diaminopropane-N,N,N',N'-tetraethanoic acid; ((HOOC.CH2)2N.CH2.)2.CH2

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

Pb++ vlt KNO3 25°C 0.20M U K1=13.04 19650Ga (79462)1639

Pb++ gl KNO3 20°C 0.10M U H K(Pb+HL)=7.18 1964ANa (79463)1640

By calorimetry: DH(K1)=-26.7 kJ mol⁻¹, DS=170 J K⁻¹ mol⁻¹

Pb++ gl KNO3 20°C 0.10M U K1=13.78 1964LAa (79464)1641
K(PbL+H)=3.86

Also K1=13.64. Using Hg/Pb electrode: K1=13.69

C11H18N2O9 H4L HDPTA CAS 3148-72-9 (431)
1,3-Diamino-2-hydroxypropane-N,N,N',N'-tetraethanoic acid;

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

Pb++ oth KNO3 20°C 0.10M U K1=17 1965JMb (79570)1642
Method: electrophoresis

C11H18N4 L CAS 78668-34-5 (6708)
3,6,9,15-Tetraazabicyclo[9.3.1]pentadeca-1(15),11,13-triene;

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

Pb++ gl KNO3 25°C 0.10M C K1=15.422 1993CDa (79620)1643
K(Pb(OH)L+H)=10.58

C11H19NO9 HL CAS 131-48-6 (8730)
5-Amino-3,5-dideoxy-D-glycero-D-galactononulosic acid;

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

Pb++ gl NaNO3 25°C 0.10M C M K1=3.22 B2= 6.40 2002SMc (79683)1644
B(PbH-1L2)=-0.1
B(Pb(bpy)L)=6.12
B(Pb(bpy)L2)=9.8
B(PbH-1(bpy)L2)=3.9
K(Pb(bpy)+L)=3.22, K(Pb(bpy)+2L)=6.90, K(Pb(bpy)+L=PbH-1(bpy)L+H)=-1.56,
B(PbH-1(bpy)L)=1.34.

C11H19N3O HL CAS 115395-65-8 (9235)

2-[Bis-(aminoethyl)-aminomethyl]-phenol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.15M	C		K1=10.86 B(PbHL)=17.68 B(PbH-1L)=0.08	2003AFb (79688)	1645

C11H20N2O4S H2L (6639)
1-Thia-4,8-diazacyclodecane-N,N'-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=11.13	1993WLa (79717)	1646

C11H20N4O6 H2L ICRF 198 CAS 108430-47-3 (8369)
N,N'-(1-Methyl-1,2-ethanediy1)bis[N-(2-amino-2-oxoethyl)glycine];

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaCl	37°C	0.15M	C	M	K1=16.89 B(PbHL)=19.23 B(PbH(edta)L)=29.40	1984MWb (79731)	1647

Method: competition with EDTA.

C11H21N3O5 H2L CAS 499238-77-6 (8837)
N-Hydroxy-N'-[4-(hydroxymethylamino)-4-oxobutyl]-N-methylpentanediamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.20M	C		K1=9.04 B(PbHL)=15.45	2004FBa (79796)	1648

C11H21N3O5 H2L 2,4-DIHA CAS 709640-92-6 (9157)
N-Hydroxy-N'-[5-(hydroxymethylamino)-5-oxopentyl]-N-methyl-butanediamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.20M	C		K1=9.46 B(PbHL)=15.25	2004FBa (79803)	1649

C11H22O5 L 16-Crown-5 CAS 55477-28-8 (1592)
1,4,7,10,13-Pentaoxacyclohexadecane; cyclo(-(O.CH2.CH2)5.CH2.CH2-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	none	25°C	0.0	C		K1=0.74	1991TKa (79867)	1650

Self medium (ca. 0.0008M). Method: Pb ion-selective electrode.

Pb++	dis	none	25°C	0.0	C	M		1989TKc (79868)	1651
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$$K(\text{PbL}+2\text{A}=\text{PbA}_2\text{L}(\text{org}))=4.81$$

Method: extraction of metal picrate/L from H₂O into benzene.

$$K(\text{Pb}+2\text{HA}(\text{org})+\text{L}(\text{org})=\text{PbA}_2\text{L}(\text{org})+2\text{H})=1.16. \text{ HA is picric acid.}$$

C₁₁H₂₅N₃O L (6392)
4,7,10-Trimethyl-1-oxa-4,7,10-triazacyclododecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO ₃	25°C	0.10M	U		K ₁ =10.53 B(PbH-1L)=0.20 K(PbL+OH)=3.49	1991ACa (79932)	1652

C₁₁H₂₅N₃O₂ L (7052)
1,4-Dioxa-7,11,14-triazacyclohexadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO ₃	25°C	0.10M	C		K ₁ =8.46	1994CDa (79941)	1653

C₁₁H₂₆N₄ L CAS 83616-30-2 (868)
1,4,7,10-Tetraazacyclopentadecane; cyclo(-(NH.CH₂.CH₂).4.CH₂.CH₂.CH₂-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO ₃	25°C	0.10M	C		K ₁ =9.50	1987HNa (79975)	1654

C₁₁H₂₆N₄ L CAS 15439-16-4 (7)
1,4,8,12-Tetraazacyclopentadecane; cyclo(-(NH.CH₂.CH₂.(N.(CH₂)₃.)₃-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO ₃	25°C	0.10M	C		K ₁ =10.12	1986HBe (79993)	1655

C₁₁H₂₆N₄O L CAS 252191-58-5 (7607)
1-(3-Hydroxypropyl)-1,4,7,10-tetraazacyclododecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K ₁ =14.7 K(Pb+HL)=5.3 K(PbL=PbH-1L+H)=-10.7	1999Dwa (80010)	1656

Medium: 0.1 M NEt₄ClO₄

C₁₁H₂₆N₄O L CAS 73396-34-6 (7856)
1-Oxa-4,7,11,14-tetraazacyclohexadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO ₃	25°C	0.10M	U		K ₁ =10.07	1990Hwa (80017)	1657

C11H27N5 L CAS 29783-72-0 (98)
1,4,7,10,13-Pentaazacyclohexadecane; cyclo(-(NH.CH2.CH2)5.CH2-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	NaCl04	25°C	0.20M	M	H	K1=14.3 B(PbHL)=19.3	1978KKb (80034)	1658
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DH1=-43.9 kJ mol⁻¹

C11H30N6 L (6595)
5-(4'-Amino-2'-azabutane)-5-methyl-3,7-diazanonane-1,9-diamine;
CH3.C(CH2.NH.CH2.CH2.NH2)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	KCl	25°C	0.50M	M		K1=9.2 K(PbL+H)=9.1 K(PbHL+H)=7.5	1991HLA (80062)	1659
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C12H8N2 L Phenanthroline CAS 66-71-7 (144)
1,10-Phenanthroline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	NaCl	30°C	0.16M	U	I	K1=2.872 B2=6.498	1990PSa (80504)	1660
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Data in several urea/water mixtures: B1=3.017, B2=6.443 in 5.80% w/w urea, 3.373, 6.452 in 11.52; 3.615, 6.509 in 20.31; 3.891, 6.672 in 29.64.

Pb++	gl	KNO3	25°C	0.10M	U	M	K1=4.68 B(PbL(Mal))=7.39	1987ZLa (80505)	1661
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Pb++	ISE	KNO3	25°C	0.10M	U		K1=4.8 B2=7.8 B3=10.3	1980NWa (80506)	1662
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Pb++	gl	NaNO3	20°C	0.10M	U		K1=4.65	1963ANG (80507)	1663
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C12H10N2O HL CAS 10354-53-7 (3970)
2-Benzoylpyridine oxime; C5H4N.C(:N.OH).C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	mixed	40°C	40%	U	TIH	K1=7.33 B2=14.23	1965SSa (80660)	1664
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Medium: 40% acetone, 0.05 M NaCl04. K1=7.68(20 C), 7.47(30 C); K2=7.10(20 C), 7.01(30 C). I=0-0.1. At I=0: DH(K1)=-29.0 kJ mol⁻¹, DS=48; DH(K2)=-16.7, DS=80

C12H11N3O HL CAS 19406-16-7 (3974)
4-Methyl-2-(2'-pyridylazo)phenol; C5H4N.N:N.C6H3(OH).CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++ sp alc/w ? 100% U 1967GKa (80877)1665
K(Pb+HL=PbL+H)=4.65

Medium: EtOH

C12H11N3O5 HL (6787)

2-Hydroxy-1-naphthaldehyde thiosemicarbazone;

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

Pb++ gl diox/w 20°C 75% U K1=7.64 B2=13.45 1992SSc (80893)1666

Medium: 75% v/v dioxan/H2O and other mixtures, 0.1 M NaClO4

C12H11N3O2 HL CAS 50536-09-5 (6323)

2-Hydroxy-1-naphthaldehyde-semicarbazone; HO.C10H6.CH:N.NH.CO.NH2

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

Pb++ gl diox/w 20°C 75% U K1=6.05 B2=11.85 1992SSc (80922)1667

Medium: 75% v/v dioxan/H2O and other mixtures, 0.1 M NaClO4

C12H12N03Cl HL (1055)

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

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

Pb++ sp NaClO4 25°C 0.50M C K1=1.782 1984MTa (80972)1668

C12H12N2O HL CAS 70301-52-9 (1940)

2-(Hydroxyphenyliminomethyl)pyridine; C5H4N.CH2.NH.C6H4.OH

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

Pb++ EMF KNO3 20°C 0.10M U K1=7.38 B2=11.96 1978CSa (81029)1669

Pb++ gl diox/w 25°C 50% U K1=10.9 1962GNb (81030)1670

C12H12O3 HL (6844)

3-Benzoylpenta-2,4-dione; CH3.CO.CH(CO.C6H5)CO.CH3

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

Pb++ gl KCl 25°C 0.20M U K1=4.42 1992CMd (81166)1671

C12H13NO3 HL (1054)

4-Dimethylamino-benzylidenepyruvic acid; (CH3)2N.C6H4.CH:CH.CO.COOH

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

Pb++ sp NaClO4 25°C 0.50M C K1=1.796 1984MTa (81202)1672

C12H13NS HL CAS 54421-21-5 (1034)
2-(2-Propyl)-8-mercaptoquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	non-aq	25°C	100%	U		K1=4.5 B2=8.4	1984UBa (81256)	1673

Medium: DMF, 0.1 M LiClO4

C12H13N3 L CAS 1539-42-0 (932)
bis-((2-Pyridyl)methyl)-amine (Di-2-picolylamine); C5H4N.CH2NHCH2.C5H4N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	20°C	0.10M	C	H	K1=6.00 B2=8.55	1977AHc (81288)	1674

Calorimetry: DH1=-31.0 kJ mol⁻¹, DS1=11.3; DH(B2)=-54, DS(B2)=-37

C12H13N3O5 HL CAS 76877-48-0 (1289)
2-(4',5'-Dimethyl-2-thiazolylazo)-4-methylphenol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	25°C	60%	U		K1=8.54 B2=13.90	1981KTa (81302)	1675

C12H14N4O2S L Sulfadimidine CAS 57-68-1 (6167)
2-(4-Aminobenzolsulfamido)-4,6-dimethylpyrimidine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	alc/w	25°C	50%	C		K1=4.05	1999GAa (81372)	1676

Medium: 50% EtOH/H2O, 0.10 M NaNO3.

C12H14O14 H6L CAS 111451-17-3 (5895)
3,6-Dioxaoctane-1,2,4,5,7,8-hexacarboxylic acid; (CH2(COOH).CH(COOH).O.CH(COOH)-)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KCl	25°C	0.10M	C		K1=8.66 K(PbL+H)=4.80 K(PbHL+H)=4.05 K(PbH2L+H)=3.18 K(PbL+Pb)=5.93	1989MMd (81419)	1677

C12H15NO6S H2L CAS 34605-45-3 (4959)
4-Toluenesulfonyl glutamic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	NaNO3	25°C	0.10M	C	M		1999BMA (81524)	1678

K(Pb+H-1L+H)=13.96

K(Pb+2H-1L+2H)=27.51

K(Pb+H-1L)=6.79

Additional method: polarography. Also data for ternary complexes with bipyridine.

Pb++ vlt KCl 25°C 0.10M U 1968RFa (81525)1679

K(PbOH+L)=5.77

C12H16O4S6 L CAS 66785-63-5 (7805)

1,4,7,10,13,16-Hexathiacyclooctadecane-2,3,11,12-tetraone;

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

Pb++ con none 25°C 0.0 C T H K1=6.87 1998GRa (81691)1680

DH(K1)=-121 kJ mol⁻¹, DS(K1)=-290 J K⁻¹ mol⁻¹.

Also data for 15-45 C.

C12H18N2O8 H2L CAS 93031-52-8 (5829)

1,4-Dioxa-7,10-diazayclododecane-5,12-dione-7,10-diethanoic acid;

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

Pb++ gl R4N.X 25°C 0.10M C K1=8.8 2002DCb (81841)1681

Medium: 0.10 M Me4NNO3.

C12H18N2O10 H5L CAS 105147-09-9 (1081)

1-Carboxy-1,3-diaminopropane-N,N,N',N'-tetraethanoic acid;

(HOOCCH2)2NCH(COOH)(CH2)2N(CH2COOH)2

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

Pb++ gl KNO3 25°C 0.10M U K1=12.84 1986MGc (81910)1682

K(Pb+HL)=10.09

K(Pb+H2L)=5.90

B(Pb2L)=19.00

K(PbHL+H)=2.79

K(PbL+H)=7.79.

C12H20N2O8 H4L CAS 1798-13-6 (4935)

1,2-Diaminobutane-N,N,N',N'-tetraethanoic acid;

(HOOC.CH2)2N.CH2.CH(C2H5).N(CH2.COOH)2

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

Pb++ vlt KNO3 20°C 0.10M U K1=19.26 1968NLa (82031)1683

C12H20N2O8 H4L CAS 40623-42-5 (1101)

1,2-Diaminoethane-N,N'-di(2-pentane-1,5-dioic acid); (CH2NHCH(COOH)CH2CH2COOH)2

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

Pb++	vlt	KNO3	25°C	0.10M	U		K1=8.45 K(Pb+HL)=4.92 K(Pb+H2L)=2.70	1973GSd (82089)	1684
Pb++	ISE	KNO3	25°C	0.10M	U		K1=8.62	1972GBE (82090)	1685

C12H20N2O8			H4L				CAS 61368-60-3	(3389)	
1,2-Diaminoethane-N,N'-diethanoic-N,N'-di-2-propanoic acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KNO3	20°C	0.10M	U		K1=17.26	1976NKA (82141)	1686

C12H20N2O8			H4L				CAS 40623-42-5	(3388)	
1,2-Diaminoethane-N,N'-diethanoic-N,N'-dipropanoic acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KCl	30°C	0.10M	U		K1=13.2	1952CMc (82175)	1687

C12H20N2O8			H4L				CAS 2458-58-4	(922)	
1,4-Diaminobutane-N,N,N',N'-tetraethanoic acid; (HOOC.CH2)2N.(CH2)4.N(CH2.COOH)2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	20°C	0.10M	U	H		1964ANA (82231)	1688
							K(Pb+PbL)=5.41		
By calorimetry: DH(K1)=-20.3 kJ mol-1, DS=132 J K-1 mol-1									
Pb++	gl	KNO3	20°C	0.10M	U		K1=10.53 K(Pb+HL)=7.50	1964LAa (82232)	1689

C12H20N2O8			H4L		BDTA		CAS 868-43-9	(1742)	
DL-2,3-Diaminobutane-N,N,N',N'-tetraethanoic acid; (HOOC.CH2)2N.CH(CH3).CH(CH3).N(CH2.COOH)2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	KNO3	20°C	0.10M	U		K1=19.52 K(Pb+HL)=2.61	1971ISa (82324)	1690
Pb++	oth	KNO3	20°C	0.10M	U		K1=19.5	1965JMb (82325)	1691
Method: electrophoresis									
Pb++	vlt	KNO3	20°C	0.10M	U		K1=19.4	1964MNa (82326)	1692

C12H20N2O8			H4L				CAS 22968-57-6	(3992)	
meso-2,3-Diaminobutane-N,N,N',N'-tetraethanoic acid; (HOOC.CH2)2N.CH(CH3).CH(CH3).N(CH2.COOH)2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	KNO3	20°C	0.10M	U		K1=18.03 K(Pb+HL)=3.61	1971ISa (82412)	1693
Pb++	oth	KNO3	20°C	0.10M	U		K1=17.5	1965JMb (82413)	1694
Method: electrophoresis									
Pb++	vlt	KNO3	20°C	0.10M	U		K1=16.83	1964MNa (82414)	1695

C12H20N2O8S H4L TEDTA CAS 923-74-0 (3394)									
2,2'-Thiobis(ethyliminodiethanoic acid); S(CH2.CH2.N(CH2.COOH)2)2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	20°C	0.10M	U	H	K1=13.86 K(Pb+HL)=8.39	1964ANa (82471)	1696
By calorimetry: DH(K1)=-54.3 kJ mol-1, DS=79.8 J K-1 mol-1									

C12H20N2O9 H4L EEDTA CAS 923-73-9 (2112)									
Oxa-bis(ethyleneimino)diethanoic acid; ((HOOC.CH2)2N.CH2.CH2)2O									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	U	H		1965WHa (82557)	1697
DH(K1)=-51.0 kJ mol-1, DS=105 J K-1 mol-1									
Pb++	gl	KNO3	20°C	0.10M	U	H	K1=15.03 K(Pb+HL)=9.4	1964ANa (82558)	1698
By calorimetry: DH(K1)=-55.0 kJ mol-1, DS=100 J K-1 mol-1									
Pb++	EMF	KNO3	25°C	0.10M	U		K1=14.4	1960HRa (82559)	1699

C12H20N2O10 H4L CAS 10258-50-1 (3993)									
(2,3-Dihydroxytetramethylenedinitrilo)tetraethanoic acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	oth	oth/un	?	?	U			1967LDa (82591)	1700
							B(Pb2L)=28.02		
Method: high-frequency titration									

C12H20N4 L (6709)									
3,7,10,16-Tetraazabicyclo[10.3.1]hexadeca-1(16),12,14-triene;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=12.275 K(Pb(OH)L+H)=9.99	1993CDa (82607)	1701

 C12H21NO6 H3L (7209)
 1-Carboxy-1-aminoheptane-N,N-diethanoic acid; H00C.CH(C6H13)N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KNO3	20°C	0.10M	U		K1=11.24	1985LBc (82702)	1702

C12H21N3O6 H3L NOTA (5589)
 1,4,7-Triazacyclononane-N,N',N"-triethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	U		K1=16.6	1975HTa (82740)	1703

By competition with Cd ion.

C12H22N2O6 H2L (6394)
 1,7-Dioxa-4,10-diazacyclododecan-4,10-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=12.434	1992ADa (82795)	1704

Medium: 0.1 M Me4NNO3

C12H22N2O6 H2L (6641)
 7,10-Diaza-1,4-Dioxacyclododecane-7,10-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=14.63	1992ADa (82809)	1705

Medium: 0.1 M Me4NNO3

C12H22N4O6 H2L ICRF 226 CAS 83266-80-2 (8370)
 N,N'-(1-Ethyl-1,2-ethanediy)bis[N-(2-amino-2-oxoethyl)glycine];

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaCl	37°C	0.15M	C	M	K1=16.95 B(PbHL)=18.87 B(PbH(edta)L)=29.51	1984MWb (82845)	1706

Method: competition with EDTA. By competition with D-penicillamine,
 K1=16.23, B(PbHL)=19.19, B(PbH2L)=20.31.

C12H22O11 L Maltose CAS 6363-53-7 (2705)
 4-O-alpha-D-Glucopyranosyl-D-glucose, Maltobiose;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	cal	oth/un	22°C	var	C	H	K1=0.78	1999MGa (82881)	1707

DH(K1)=-5.6 kJ mol⁻¹, DS(K1)=-3.9 J K⁻¹ mol⁻¹.

C12H22O11 L Trehalose CAS 6138-23-4 (2700)
D-Glucopyranosyl-D-glucopyranoside;

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

Pb++ gl NaClO4 25°C 1.0M C 1975CVa (82901)1708
K(Pb+H2L)=2.26

Additional method: Pb/Hg electrode.

C12H22O11 L Sucrose CAS 57-50-1 (2523)
beta-D-Fructofuranosyl-alpha-D-glucopyranoside; Saccharose;

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

Pb++ ISE NaClO4 25°C 1.00M U K1=2.46 1974CVb (82911)1709

C12H23N3O5 H2L (6393)
1-Oxa-4,7,10-triazacyclododecan-4,10-diethanoic acid;

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

Pb++ gl R4N.X 25°C 0.10M C K1=15.66 1992ADa (82976)1710
B(PbHL)=18.02

Medium: 0.1 M Me4NNO3

C12H23N3O5 H2L CAS 499238-78-7 (8836)
N-Hydroxy-N'-[5-(hydroxymethylamino)-5-oxopentyl]-N-methylpentanediamide;

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

Pb++ gl KNO3 25°C 0.20M C K1=9.06 2004FBa (82986)1711
B(PbHL)=15.43

C12H23N3O5 H2L CAS 499238-79-8 (8835)
N-Hydroxy-N'-[6-(hydroxymethylamino)-6-oxohexyl]-N-methylbutanediamide;

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

Pb++ gl KNO3 25°C 0.20M C K1=9.80 2004FBa (82996)1712
B(PbHL)=15.41

C12H24N4O4 H2L (7522)
1,4,8,11-Tetraazacyclotetradecane-6,13-dicarboxylic acid

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

Pb++ gl KCl 25°C 0.50M U K1=19.0 1997BLd (83104)1713
K(PbL+H)=7.3
K(PbHL+H)=4.2

*K(PbL)=-8.0

C12H24O4S2 L CAS 296-39-9 (4938)
1,4,10,13-Tetraoxa-7,16-dithiacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	cal	non-aq	25°C	100%	C H		K1=4.76	1986BUe (83140)	1714

Medium: MeOH. DH(K1)=-34.5 kJ mol⁻¹, DS(K1)=-25 J K⁻¹ mol⁻¹.

C12H24O6 L 18-Crown-6 CAS 17455-13-9 (577)
1,4,7,10,13,16-Hexaoxacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE alc/w		25°C	100%	C IH T		K1=7.0	2003ADa (83558)	1715

IUPAC Tentative. Medium: 0-0.1 M various. DH(K1)=-45 kJ mol⁻¹
In H2O: K1=4.42, DH(K1)=-22. In PC: K1=7.0, DH(K1)=-49.6

Pb++	con	mixed	25°C	90%	C		K1=3.87	2003ISa (83559)	1716
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Medium: 90% v/v DMSO/H2O.

Pb++	cal	none	25°C	dil	C H		K1=4.16	2002BSc (83560)	1717
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Self medium, <0.005 M. DH(K1)=-20.2 kJ mol⁻¹, DS(K1)=11 J K⁻¹ mol⁻¹.

Pb++	con	alc/w	25°C	40%	C		K1=6.94	2002ISa (83561)	1718
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Medium: 40% EtOH/H2O.

Pb++	cal	none	25°C	0.03M	C T H		K1=4.71 DH(K1)=-21.6 kJ mol ⁻¹	2002VOa (83562)	1719
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Ionic strength is provided by Pb(NO3)2 used: 0.007-0.05 M.
for 35 C K1=4.59; DH(K1)=-21.0; for 45 C K1=4.47, DH(K1)=-21.5

Pb++	nmr	non-aq	27°C	100%	C I		K1=7.75	2001KZa (83563)	1720
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Method: 7Li nmr; competitive binding study. Medium: nitromethane.
In acetonitrile, K1=4.08

Pb++	vlt	mixed	20°C	0.02M	U I		K1=10.79 K1=4.80 in 100%H2O	2000RCb (83564)	1721
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Medium: 0.025 M Et4NCl in 75.78 %mass CH3CN in H2O
For 0.025 M Et4NCl in 79.17% mass DMFA/H2O K1=2.26

Pb++	vlt	mixed	20°C	78%	U		K1=5.80 K1=4.80 in 100% H2O	2000RCb (83565)	1722
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Medium: 0.025 M Et4NCl in 34.78% (mass) propanol in H2O.
for 0.025 M Et4NCl in 34.21% CH3CN in H2O K1=7.06; for 38.8% DMFA K1=4.35

Pb++	vlt	R4N.X	20°C	0.02M	C I		K1=4.80	2000RCc (83566)	1723
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Method: SW polarography. Medium: 0.025 M Et4NCl. By DPP, K1=4.55.
Data for 0-76% w/w PrOH/H2O, 0-76% w/w AN/H2O and 0-79% w/w DMF/H2O.

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Pb++      con mixed  25°C  20%  C TIH    K1=4.07      1999SPc (83567)1724
Medium: 20% w/w AN/DMSO. Data for 20-80% w/w AN/DMSO and 25-55 C.
DH(K1)=-26 kJ mol-1, DS(K1)=-10 J K-1 mol-1.
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Pb++      vlt mixed  25°C  90%  C        K1=6.3      1996SSc (83568)1725
Method: polarography. Medium: 90% w/w CH3CN/H2O.
-----
Pb++      cal none   50°C  0.00  C T H    K1=3.98      1995WIa (83569)1726
Method: isothermal flow calorimetry. Measurements at 1.52 MPa. Data for
25-125 C. DH(K1)=-21.5 kJ mol-1, DS(K1)=10 J K-1 mol-1.
-----
Pb++      nmr mixed  30°C  10%  U I     K1=3.7      1994RAa (83570)1727
Medium: 10% MeCN/H2O. In 50% K1=4.5, 80% K1=5.9
-----
Pb++      ix  none   25°C   0.0  U        K1=4.0      1991BMb (83571)1728
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Pb++      vlt R4N.X  22°C  0.03M C I     K1=4.72      1991PSa (83572)1729
Medium: 0.025 M Et4NClO4. Method: differential pulse polarography. Data
for 15-75% w/w CH3CN/H2O, 0.025 M Et4NClO4.
-----
Pb++      vlt alc/w  25°C 100%  C        K1=7.52      1987CBd (83573)1730
                        B(Pb2L)=14.78
Medium: methanol, 0.10 M Et4NI or Bu4NClO4. Method: polarography.
-----
Pb++      cal non-aq 25°C 100%  C H     K1=6.99      1986BUE (83574)1731
Medium: MeOH. DH(K1)=-45 kJ mol-1, DS(K1)=-17.8 J K-1 mol-1.
-----
Pb++      cal non-aq 25°C 100%  C H     K1=>5.5      1986ICa (83575)1732
Medium: MeOH. DH(K1)=-37.5 kJ mol-1.
-----
Pb++      ISE R4N.X  25°C  0.10M U I     K1=3.58      1985BFa (83576)1733
-----
Pb++      nmr non-aq 25°C 100%  U        K1=3.66      1985BPa (83577)1734
Medium: DMF
-----
Pb++      vlt oth/un  RT   0.10M C        K1=4.21      1985LAa (83578)1735
Method: dc and ac polarography. Medium: 0.10 M HNO3.
-----
Pb++      cal alc/w  25°C  70%  U H     K1=6.5      1976ITa (83579)1736
Medium: 70% w/w MeOH/H2O. DH(K1)=-38.5 kJ mol-1.
-----
Pb++      cal oth/un 25°C  0.10M U H T   K1=4.27      1976ITb (83580)1737
DH=-21.6 kJ mol-1.
-----
Pb++      vlt R4N.X  25°C  0.10M C H T   K1=4.4      1976KKf (83581)1738
DH(K1)=-13.0 kJ mol-1, DS=41 J K-1 mol-1

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C12H25NO5 L CAS 33941-15-0 (4939)
1,4,7,10,13-Pentaoxa-16-azacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	non-aq	22°C	100%	C	I	K1=7.9	2001MRa (83710)	1739
Medium: DMF, 0.025 M Et4NClO4. Method: differential pulse polarography. Data for binary mixtures of DMF with MeOH, nitromethane, PrOH, AN.									
Pb++	con	mixed	25°C	20%	C	TIH	K1=4.42	1999SPc (83711)	1740
Medium: 20% w/w AN/DMSO. Data for 20-80% w/w AN/DMSO and 25-55 C. DH(K1)=-27 kJ mol-1, DS(K1)=-8 J K-1 mol-1.									
Pb++	gl	alc/w	25°C	95%	U		K1=8.4	1992BDa (83712)	1741
Medium: 95% MeOH, 0.1 M Et4NClO4 ***** C12H26N2O4 L Cryptand 2,2 CAS 23978-55-4 (925) 4,7,13,16-Tetraoxa-1,10-diazacyclooctadecane;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	cal	none	25°C	dil	C	H		2002BSc (83874)	1742
Self medium, <0.005 M. DH(K1)=-47.3 kJ mol-1, DS(K1)=-33 J K-1 mol-1.									
Pb++	con	mixed	25°C	20%	C	TIH	K1=4.84	1999SPc (83875)	1743
Medium: 20% w/w AN/DMSO. Data for 20-80% w/w AN/DMSO and 25-55 C. DH(K1)=-31 kJ mol-1, DS(K1)=-13 J K-1 mol-1.									
Pb++	gl	R4N.X	25°C	0.05M	C		K1=6.6	1997BCc (83876)	1744
Medium: 0.05 M Me4NClO4									
Pb++	cal	non-aq	25°C	100%	C	H		1986BUe (83877)	1745
Medium: MeOH. DH(K1)=-29.1 kJ mol-1, DS(K1)=76.2 J K-1 mol-1.									
Pb++	gl	R4N.X	25°C	0.10M	C		K1=8.39	1985CSb (83878)	1746
Medium: 0.10 M Et4NClO4.									
Pb++	ISE	non-aq	25°C	100%	U		K1=4.22	1982NSb (83879)	1747
Medium: DMSO, 0.1 M Et4NClO4									
Pb++	gl	NaClO4	25°C	0.50M	U		K1=7.01	1981KMb (83880)	1748
Pb++	sp	non-aq	25°C	100%	U		K1=11.64 B(Pb2L)=15.30	1981SMb (83881)	1749
In propylene carbonate, I=0.01 M (Et4NClO4)									
Pb++	gl	alc/w	25°C	100%	U		K1=9.48 B(Pb2L)=12.30	1980SAa (83882)	1750
Medium: MeOH, 0.1 M Et4NClO4									
Pb++	gl	R4N.X	25°C	0.10M	C		K1=6.90	1977ASc (83883)	1751

C12H26N4O L (7316)
7-Oxa-1,4,10,13-tetraazabicyclo[2(1,13).2.11]heptadecane

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	NaNO3	25°C	0.10M	U		K1=7.1	1987HEa (83944)	1752
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C12H26OS L CAS 2180-20-3 (5699)
S,S-Dihexylsulfoxide; C6H13.SO.C6H13

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	ISE	non-aq	25°C	100%	U		K1=3.60 B2=6.87 B3=8.12 B4=8.92	1986MMb (83976)	1753
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Medium: acetone, Bu4NC104

C12H26O6 L Pentaglyme CAS 1191-87-3 (2498)
2,5,8,11,14,17-Hexaoxaoctadecane; (CH3.O.CH2.CH2.O.CH2.CH2.O.CH2.)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	cal	none	25°C	dil	C	H		2002BSc (84015)	1754
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Self medium, <0.005 M. DH(K1)=-1 kJ mol-1.

Pb++	cal	alc/w	25°C	100%	U	H	K1=2.22	1985BUa (84016)	1755
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Medium: MeOH. DH(K1)=-26.4 kJ mol-1

C12H26O7 L Hexa-Et-Glycol CAS 2615-15-8 (5665)
3,6,9,12,15-Pentaoxaheptadecane-1,17-diol

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	cal	none	25°C	dil	C	H	K1=2.02	2002BSc (84027)	1756
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Self medium, <0.005 M. DH(K1)=-3.3 kJ mol-1, DS(K1)=28 J K-1 mol-1.

Pb++	cal	alc/w	25°C	100%	U	H	K1=3.61	1985BUa (84028)	1757
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Medium: MeOH. DH(K1)=-37.5 kJ mol-1

C12H26S L CAS 6294-31-3 (5697)
S,S-Dihexylsulfide; C6H13.S.C6H13

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	ISE	non-aq	25°C	100%	U		K1=0.36 B2=0.59	1986MMb (84033)	1758
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Medium: acetone, Bu4NC104

C12H27N3O2 L (7053)
1,4-Dioxa-7,11,15-triazacycloheptadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=7.39 K(PbLOH+H)=8.70	1994CDa (84060)	1759

C12H27N3O3 L THETAC (7199)
1,4,7-Tris(hydroxyethyl)-1,4,7-triazacyclononane

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	NaNO3	25°C	0.1M	C		K1=12.22	1996CHa (84090)	1760

Method: Differential Pulse Polarography. By potentiometry (gl): K1=11.96

Pb++	gl	NaNO3	25°C	0.10M	C		K1=11.98	1996LHb (84091)	1761
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C12H27N5O2 HL (7521)
6-Methyl-1,4,8,11-tetraazacyclotetradecane-6-amino-3-carboxylic acid

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KCl	25°C	0.50M	U		K1=10.7 K(PbL+H)=6.1 K(PbHL+H)=3.0	1997BLd (84113)	1762

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=14.39 B(PbHL)=21.23 B(PbH2L)=25.89 B(Pb2L)=20.18 B(Pb2HL)=25.40	2000PSa (84161)	1763

Medium: 0.10 M [Et4N]NO3. B(Pb2H-1L)=11.65.

Pb++	gl	KNO3	25°C	0.10M	U		K1=11.78 K(Pb+HL)=8.61 K(Pb+H2L)=4.98	1996BJa (84162)	1764
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C12H28N4 L CAS 76282-33-2 (2883)
1,4,7,10-Tetramethyl-1,4,7,10-tetraazacyclododecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	U		K1=13.91	1990HWa (84178)	1765

C12H28N4 L CAS 24772-41-6 (145)
1,5,9,13-Tetraazacyclohexadecane; cyclo(-(NH.CH2.CH2.CH2)4-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	U		K1=9.29 K(PbL+OH)=4.7	1991LHa (84197)	1766

C12H28N4O L (7305)
1-(2-Hydroxyethyl)-1,4,8,11-tetraazacyclotetradecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=8.1 B(PbH-1L)=-0.9	1997RWa (84209)	1767

Medium: Et4NC104

C12H28N4O2 L CAS 296-36-6 (2472)
1,10-Dioxa-4,7,13,16-tetraazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	U		K1=9.01	1990WHa (84235)	1768

Pb++	gl	NaNO3	25°C	0.10M	C		K1=9.01	1989HBa (84236)	1769
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C12H28N4O2 L CAS 40025-71-6 (5880)
1,4-Dioxa-7,10,13,16-Tetraazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	C		K1=9.11 B(PbHL)=14.6 B(PbH2L)=20.65	1989HBa (84244)	1770

C12H29N5 L CAS 82583-20-6 (97)
1,4,7,11,14-Pentaazacycloheptadecane; cyclo(-(NH.C2H4)3.CH2(NH.C2H4)2.CH2-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	0.20M	M	H	K1=11.6 B(PbHL)=16.9	1978KKb (84260)	1771

DH1=-41.1 kJ mol⁻¹

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	0.15M	C		K1=14.13 B(PbHL)=19.86 K(PbL+H)=5.73 K(Pb+HL)=9.71	1993ABc (84346)	1772

C13H9NOS HL CAS 3411-95-8 (1683)
2-(2-Hydroxyphenyl)benzothiazole;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	25°C	50%	U		K1=7.30 B2=13.27	1954CFa (84554)	1780

C13H9NO2 HL (3403)
2-(2'-Hydroxyphenyl)benzoxazole;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	25°C	50%	U		K1=7.7 B2=13.8	1954CFa (84567)	1781
Pb++	gl	diox/w	25°C	50%	U		K1=7.65 B2=13.65	1952FRb (84568)	1782

C13H10N02Cl HL CAS 78154-49-1 (5649)
N-3-Chlorophenylbenzohydroxamic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	30°C	50%	U		K1=9.32 B2=17.02	1994JBb (84741)	1783

Medium: 50% v/v dioxane/H2O, 0.10 M NaCl04.

C13H10N2O5S H2L CAS 98789-35-6 (5012)
4-Hydroxy-3-formylazobenzene-4'-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	EMF	alc/w	25°C	42%	U			1972DSc (84922)	1784

K(Pb+HL=PbL+H)=4.08
K(PbL+HL=PbL2+H)=3.51

Medium: 42% EtOH, 0.2 M NaCl04

C13H11NOS HL CAS 56048-80-7 (5018)
N-Thiobenzoyl-N-phenylhydroxylamine; C6H5.CS.N(C6H5)OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	30°C	75%	U		K1=11.33 B2=20.71	1971DTc (85058)	1785

C13H11NO2 HL CAS 304-88-1 (181)
N-Phenylbenzohydroxamic acid; C6H5.CO.N(C6H5).OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	30°C	50%	U		K1=9.40 B2=17.28	1994JBb (85170)	1786

Medium: 50% v/v dioxane/H2O, 0.10 M NaCl04.

C13H11NO3 H2L CAS 156357-28-7 (8319)

N-(p-Hydroxyphenyl)benzohydroxamic acid;

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

Pb++ gl diox/w 30°C 50% U K1=9.07 B2=16.35 1994JBb (85201)1787
Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4.
For N-(m-hydroxyphenyl)benzohydroxamic acid, K1=8.64, K2=7.02.

C13H11N3O5S H3L (5019)

4-Hydroxy-3-oximinomethylazobenzene-4'-sulfonic acid;

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

Pb++ gl alc/w 25°C 50% U K1=3.65 B2=6.88 1973DSa (85300)1788
Medium: 42% EtOH, 0.2 M NaClO4

C13H11N5O10S2 H5L (5020)

1,5-Bis(2-hydroxy-5-sulfophenyl)-3-nitroformazan;

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

Pb++ gl NaNO3 20°C 0.10M U K1=15.59 1971SEa (85320)1789

C13H12N4S L Dithizone CAS 60-10-6 (1801)

Diphenylthiocarbazone; C6H5.NH.NH.CS.N:N.C6H5

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

Pb++ sp NaClO4 25°C 0.10M U K1=7.31 B2=14.16 1973BSe (85468)1790

Pb++ dis NaClO4 ? 0.10M U K1=12.46 B2=19.15 1968ANb (85469)1791

Pb++ dis oth/un ? 0.10M U M B2=15.85? 1964MSb (85470)1792
Kso=-23.7

Ternary complexes with diethyldithiocarbamic acid

C13H13O2Br HL (6846)

3-Benzoyl-5-bromohexa-5-ene-2-one; CH2=CBr.CH2.CH(CO.CH3)CO.C6H5

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

Pb++ gl KCl 25°C 0.20M U K1=4.37 1992CMd (85538)1793

C13H13O2Cl HL (6842)

3-Benzoyl-5-chlorohex-5-ene-2-one; CH2=CCl.CH2.CH(CO.CH3)CO.C6H5

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

Pb++ gl KCl 25°C 0.20M U K1=3.32 1992CMd (85546)1794

C13H15N3O5 HL CAS 76877-50-4 (1291)

2-(4',5'-Dimethyl-2-thiazolylazo)-4,6-dimethylphenol;

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

Pb++ gl diox/w 25°C 60% U K1=9.05 B2=15.10 1981KTa (85860)1795

C13H15N3O5 HL CAS 76877-45-7 (1295)

2-(4',5'-Dimethyl-2-thiazolylazo)-4-ethylphenol;

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

Pb++ gl diox/w 25°C 60% U K1=8.55 B2=13.74 1981KTa (85869)1796

C13H15N3O2S HL CAS 76877-49-1 (1293)

2-(4',5'-Dimethyl-2-thiazolylazo)-4-methyl-6-methoxyphenol;

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

Pb++ gl diox/w 25°C 60% U K1=8.80 B2=15.67 1981KTa (85893)1797

C13H16N4O5 HL CAS 76877-51-5 (1290)

2-(4',5'-Dimethyl-2-thiazolylazo)-5-dimethylaminophenol;

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

Pb++ gl diox/w 25°C 60% U K1=10.47 B2=18.07 1981KTa (85945)1798

C13H17NO3 HL CAS 94287-43-2 (902)

L-2-(Benzoylamino)-4-methylpentanoic acid; (CH3)2CHCH2CH(NHCO.C6H5)COOH

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

Pb++ gl KNO3 25°C 0.10M U T H K1=3.32 1980SKa (85976)1799

In 50% v/v dioxan. Temperature range 25-45C. At 35C, DH=-19.0 and DS=-0.4.

C13H17NO6 H2L CAS 77553-78-7 (6078)

N-(2-Hydroxy-1-(hydroxybenzyl)-iminodiethanoic acid;

HO.CH2.CH(CH(OH)(C6H5)).N(CH2.COOH)2

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

Pb++ gl NaClO4 25°C 1.0M C K1=7.81 B2=13.00 1981ASb (85992)1800

B(PbH-1L)=-0.18

C13H17N3O5 HL (6006)

N-Benzyloxycarbonyl-alanylglycyl hydroxamic acid;

C6H5.CH2.O.CO.NH.CH(CH3).CO.NH.CH2.CO.NHOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	U		K1=5.8 B2=9.3	1987CSb (86015)	1801

C13H18N2O4 L (6005)									
N-Benzyloxycarbonyl-valyl hydroxamic acid; C6H5.CH2.O.CO.NH.CH(CH(CH3)2).CO.NHOH									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	U		K1=5.8	1987CSb (86033)	1802

C13H20N2O4S HL CAS 2130-76-9 (5024)									
4-Toluenesulfonyl lysine;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KCl	25°C	0.10M	U		B2=9.74	1968RFa (86100)	1803

C13H20N2O10 H5L CAS 88897-18-1 (1082)									
1-Carboxy-1,4-diaminobutane-N,N,N',N'-tetraethanoic acid; (HOOCCH2)2NCH(COOH)(CH2)3N(CH2COOH)2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	U		K1=11.15 K(Pb+HL)=10.27 K(Pb+H2L)=5.34 B(Pb2L)=18.97 K(PbHL+H)=2.89	1986MGc (86133)	1804
K(PbL+H)=9.66									

C13H21N3O L CAS 473793-88-3 (8976)									
7-Oxa-3,11,17-triazabicyclo[11.3.1]heptadeca-1(17),13,15-triene;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=6.74 *K(PbL)=-9.03	2001CDb (86167)	1805

C13H22N2O8 H4L CAS 1798-14-7 (921)									
(Pentamethylenedinitrilo)tetraethanoic acid; ((HOOC.CH2)2N.CH2.CH2)2CH2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	20°C	0.10M	U		K(Pb+HL)=7.83	1964ANa (86202)	1806

C13H22N2O8 H4L CAS 1198-14-7 (5004)									
1,2-Diaminopentane-N,N,N',N'-tetraethanoic acid; (HOOCCH2)2NCH2CH(C3H7)N(CH2COOH)2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	vlt	KNO3	20°C	0.10M	U		K1=19.26	1974NLa (86233)	1807
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C13H22N2O8	H4L						(7164)		
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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
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Pb++	gl	KNO3	20°C	0.10M	U		K1=12.65	1981NSc (86261)	1808
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C13H22N2O8	H4L						(5003)		
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3-Methyl-1,2-diaminobutane-N,N,N',N'-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	vlt	KNO3	20°C	0.10M	U		K1=19.17	1968NLb (86288)	1809
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C13H22N4	L						(6710)		
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3,7,11,17-Tetraazabicyclo[11.3.1]heptadeca-1(17),13,15-triene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	KNO3	25°C	0.10M	C		K1=9.715	1993CDa (86325)	1810
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K(Pb(OH)L+H)=10.948

C13H24N2O6	H2L						(5610)		
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1,11-Dioxa-4,8-diazacyclotridecane-N,N'-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	R4N.X	25°C	0.10M	C		K1=11.56	1998CCd (86414)	1811
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K(PbL+H)=3.58

*K(PbL)=-10.31

Medium: 0.10 M Me4NNO3.

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	con	none	25°C	0.0	C		K1=0.65	2001KMb (86483)	1812
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C13H26O6	L	19-Crown-6					CAS 55471-27-7 (8943)		
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1,4,7,10,13,16-Hexaoxacyclononadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	con	oth/un	25°C	dil	C		K1=2.38	1999TMa (86502)	1813
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Self medium (Pb(NO₃)₂).

C₁₃H₂₉N₃O L (6454)

4,8,12-Trimethyl-1-oxa-4,8,12-triazacyclotetradecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KN ₃	25°C	0.10M	U		K ₁ =6.61 B(PbH-1L)=-2.22 K(PbL+OH)=4.99	1991ACa (86549)	1814

C₁₃H₃₀N₄O L CAS 252191-62-1 (7610)

1-(3-Hydroxypropyl)-1,4,8,11-tetraazacyclotetradecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K ₁ =9.7 K(Pb+HL)=5.2 K(PbL=PbH-1L+H)=-11.0	1999Dwa (86568)	1815

Medium: 0.1 M NEt₄ClO₄

C₁₄H₈O₆ H₄L Quinalizarin CAS 81-61-8 (1056)

1,2,5,8-Tetrahydroxyanthraquinone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	sp	alc/w	30°C	50%	U		K(?)=4.1	1967SBb (86683)	1816

Medium: 50% EtOH

C₁₄H₈O₇S H₃L DASA CAS 83-61-4 (950)

1,2-Dihydroxyanthraquinone-3-sulfonic acid, Alizarin Red S;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	NaClO ₄	30°C	0.10M	C		K ₁ =13.62	1991KCa (86748)	1817

Method: Pb ion selective electrode. By spectrophotometry: K₁=13.51

Pb++	gl	NaClO ₄	30°C	0.0	U	I	K ₁ =11.11 B ₂ =16.12	1972GDa (86749)	1818
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I=0.02: K₁=11.19, K₂=5.05; 0.05: K₁=11.22, K₂=5.13;
0.15: K₁=11.23, K₂=5.28; 0.2: K₁=11.36, K₂=5.60

Pb++	sp	oth/un	25°C	?	U		K ₁ =6.0	1959DBb (86750)	1819
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Pb++	sp	oth/un	28°C	?	U		K ₁ =4.7	1957MDa (86751)	1820
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C₁₄H₁₁N₄O₄ H₂L CAS 156357-30-1 (8320)

N-(p-Carboxyphenyl)benzohydroxamic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++ gl diox/w 30°C 50% U K1=8.55 B2=15.60 1994JBb (86977)1821
Medium: 50% v/v dioxane/H2O, 0.10 M NaClO4.

For N-(o-carboxyphenyl)benzohydroxamic acid, K1=8.18, K2=6.73.

C14H11N5O8S2 H5L CAS 1105-53-9 (5084)

1,5-Bis(2-hydroxy-5-sulfophenyl)-3-cyanoformazan;

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

Pb++ gl NaNO3 20°C 0.10M U K1=13.99 1971SEa (87020)1822

C14H12N2O3 H2L CAS 4870-46-6 (3432)

2-Hydroxy-5-methyl-2'-carboxy-azobenzene; HO.C6H3(CH3).N:N.C6H4.COOH

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

Pb++ gl diox/w 30°C 75% U 1957SFb (87220)1823

K(Pb+H2L=PbL+2H)=-8.2

Pb++ gl diox/w 30°C 75% U K1=12.14 1952SNa (87221)1824

C14H13NO2 HL CAS 1503-92-0 (1817)

N-(4-Tolyl)benzohydroxamic acid; C6H5.CO.N(C6H4.CH3).OH

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

Pb++ gl diox/w 30°C 50% U K1=10.36 B2=19.32 1994JBb (87449)1825

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

C14H13NO2 HL CAS 1143-74-2 (4044)

N-2-Tolylbenzohydroxamic acid; C6H5.CO.N(C6H4.CH3).OH

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

Pb++ gl diox/w 30°C 50% U K1=10.34 B2=19.02 1994JBb (87481)1826

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

C14H13O2P HL CAS 3064-56-0 (7013)

2-(Diphenylphosphino)-ethanoic acid; (C6H5)2P.CH2.COOH

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

Pb++ gl NaClO4 25°C 0.10M U K1=2.69 B2=4.65 1979POa (87637)1827

C14H14N4 L CAS 98240-13-2 (4033)

N,N'-Bis(2'-picolinylidene)-1,2-diaminoethane;

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

Pb++ dis non-aq 25°C 100% C M 20010Hb (87680)1828

Method: distribution from buffered 0.10 M NaCl into nitrobenzene.

$K(\text{Pb}+3\text{L}(\text{org})+2\text{A}=\text{PbL}_3\text{A}_2(\text{org}))=14.7$. HA is picric acid.

C14H14N4OBr₂ HL CAS 35601-32-2 (5092)

5-(3,5-Dibromo-2-pyridylazo)-2-ethylamino-4-hydroxy-1-methylbenzene;

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

Pb++ sp oth/un ? ? U K1=6.26 1967GUa (87687)1829

C14H15N2O8Cl H4L (1903)

4-Chloro-1,2-diaminobenzene-N,N,N',N'-tetraethanoic acid;

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

Pb++ gl NaCl04 25°C 0.50M C K1=13.14 B2=15.52 2002SEa (87749)1830

B(PbHL)=15.44

B(PbH-1L)=2.68

B(PbH2L2)=25.28

B(PbHL2)=20.77

B(Pb2H2L)=18.80, B(Pb2L)=14.85.

C14H15N4OBr HL CAS 14337-50-9 (5095)

5-(5-Bromo-2-pyridylazo)-2-ethylamino-4-hydroxy-1-methylbenzene;

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

Pb++ sp oth/un ? ? U K(?)=6.35 1967GUa (87767)1831

C14H16N2O8 H4L CAS 40774-59-2 (1901)

1,2-Diaminobenzene-N,N,N',N'-tetraethanoic acid; C₆H₄(N(CH₂.COOH)₂)₂

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

Pb++ gl NaCl04 25°C 0.50M C K1=13.89 B2=16.52 2002SEa (87964)1832

B(PbHL)=16.20

B(PbH-1L)=3.08

B(PbH2L2)=26.64

B(PbHL2)=22.58

B(Pb2H2L)=20.78, B(Pb2L)=16.06, B(Pb2H-1L)=9.37.

Pb++ gl NaCl04 25°C 1.00M C H K1=13.89 1992ANb (87965)1833

By calorimetry: DH(K1)=-34.8 kJ mol⁻¹, DS=149 J K⁻¹ mol⁻¹

C14H18N4 L DPEN CAS 4608-34-3 (1850)

N,N'-Bis-(2-pyridylmethyl)-1,2-diaminoethane; (C₅H₄N.CH₂.NH.CH₂)₂

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

Pb++ gl NaNO3 25°C 0.10M C K1=9.55 1995CCb (88116)1834
B(Pb(OH)L)=12.92

From differential pulse polarography: K1=9.55; B(Pb(OH)L)=13.22;
B(Pb(OH)2L)=15.04

C14H20O3 HL CAS 100864-12-8 (309)
2-Phenoxyoctanoic acid;

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

Pb++ dis non-aq 24°C 100% C K=5.23 1999HSa (88197)1835

By solvent extraction into CHCl3 at pH 3.0-7.0. For 2-(2'-methoxyphenyl-
oxy)octanoic acid, K=5.57. K: Pb(aq)+2HL(org)=PbL2(org)+2H(aq).

C14H20O5 L Benzo15-crown-5 CAS 14098-44-3 (608)
2,3-Benzo-1,4,7,10,13-pentaoxacyclopentadeca-2-ene;

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

Pb++ con mixed 25°C 90% C K1=2.53 2003ISa (88351)1836
Medium: 90% v/v DMSO/H2O.

Pb++ con alc/w 25°C 40% C K1=2.68 2002ISa (88352)1837
Medium: 40% EtOH/H2O.

Pb++ vlt mixed 25°C 90% C K1=3.3 1996SSc (88353)1838
Method: polarography. Medium: 90% w/w CH3CN/H2O.

Pb++ cal non-aq 25°C 100% C H K1=2.36 1986ICa (88354)1839
Medium: MeOH. DH(K1)=-21.5 kJ mol⁻¹, DS(K1)=-27.0 J K⁻¹ mol⁻¹.

Pb++ vlt oth/un RT 0.10M C K1=2.76 1985LAa (88355)1840
Method: dc and ac polarography. Medium: 0.10 M HNO3.

Pb++ cal alc/w 25°C 70% U H K1=2.04 1976ITa (88356)1841
Medium: 70% w/w MeOH/H2O. DH(K1)=-21.4 kJ mol⁻¹.

C14H22N2O8 H4L CDTA CAS 482-54-2 (200)
trans-1,2-Diaminocyclohexane-N,N,N',N'-tetraethanoic acid;

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

Pb++ gl KNO3 25°C 0.10M U K1=20.24 1983FSa (88743)1842

Pb++ sp oth/un ? ? U K(Pb+H2L)=6.74 1969KBb (88744)1843

Pb++ sp NaClO4 20°C 0.10M U K1=21.28 1969NKa (88745)1844

$$K(\text{Pb+HL})=11.47$$

Pb++ vlt oth/un 30°C 1.0M U TI K1=19.16 1965JGb (88746)1845
K1=19.60(I=0.1). At 40 C, I=0.1: K1=19.32

Pb++ cal KNO3 25°C 0.10M U H 1965WHa (88747)1846
DH(K1)=-51.8 kJ mol⁻¹, DS=197 J K⁻¹ mol⁻¹

Pb++ cal KNO3 20°C 0.10M U T H 1963ANb (88748)1847
DH(K1)=-47.5 kJ mol⁻¹, DS=227 J K⁻¹ mol⁻¹

Pb++ cal KNO3 20°C 0.10M U H K1=20.33 1963ANf (88749)1848
DH(K1)=-47.5 kJ mol⁻¹, DS=226 J K⁻¹ mol⁻¹

Pb++ dis NaClO4 20°C 0.10M U K1=19.5 1963STc (88750)1849

Pb++ vlt KNO3 20°C 0.10M U K1=19.68 1954SGa (88751)1850
K(PbL+H)=5.18

C14H22N2O9 H4L CAS 66918-19-2 (395)
2,5-Bis(aminomethyl)tetrahydrofuran-N,N,N',N'-tetraethanoic acid;

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

Pb++ gl NaNO3 25°C 0.10M U K1=14.30 1977PIb (88890)1851

C14H22N2O10 H5L (1083)
1-Carboxy-1,5-diaminopentane-N,N,N',N'-tetraethanoic acid;
(HOOCCH2)2NCH(COOH)(CH2)4N(CH2COOH)2

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

Pb++ gl KNO3 25°C 0.10M U K1=11.37 1983NGb (88899)1852
K(Pb+HL)=10.59
K(Pb+H2L)=4.96
K(PbHL+H)=3.08
K(PbL+H)=9.91

$$B(\text{Pb2L})=19.25$$

C14H22O5 H2L CAS 85785-29-1 (2250)
Di(hepta-4,6-dione)ether, (CH3.CO.CH2.CO.(CH2)3)2O

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

Pb++ gl diox/w 24°C 50% U K1=8.6 1979ACa (88993)1853

C14H23N3O10 H5L DTPA CAS 67-43-6 (238)
Diethylenetriamine-pentaethanoic acid; HOOC.CH2.N(CH2.CH2.N(CH2.COOH)2)2

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

Pb++ vlt KNO3 25°C 0.10M C K1=18.90 2001CKb (89348)1854
 Method: cyclic voltammetry. Medium: pH 10.

Pb++ gl NaCl04 20°C 1.0M C M 1993BNb (89349)1855
 K(Pb+2H+CrL)=11.38
 K(Pb+H+CrL)=9.02
 K(Pb+CrL)=5.85
 K(PbCrLOH+H)=5.25

Cr=Cr(III)

Pb++ vlt NaCl04 25°C 0.20M U K1=19.1 1972LWa (89350)1856

Pb++ sp NaCl04 20°C 0.10M U K1=20.56 1969NKa (89351)1857
 K(Pb+HL)=14.60

Pb++ cal KNO3 20°C 0.10M U T H 1965ANa (89352)1858
 DH(K1)=-78.6 kJ mol⁻¹, DS=91.1 J K⁻¹ mol⁻¹

Pb++ cal KNO3 25°C 0.10M U H 1965WHa (89353)1859
 DH(K1)=-78.6 kJ mol⁻¹, DS=92 J K⁻¹ mol⁻¹

Pb++ EMF KNO3 25°C 0.10M U K1=18.6 1960HRa (89354)1860

Pb++ EMF oth/un 20°C 0.10M U K1=19.05 1959AND (89355)1861
 K(PbL+Pb)=3.41
 K(Pb+HL)=12.81

C14H23N3S2 L CAS 771500-58-4 (9194)
 5-(3-Aminopropyl)-2,8-dithia-5-aza-2,6-pyridinophane;

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

Pb++ gl R4N.X 25°C 0.10M C K1=9.9 2004BBE (89460)1862
 K(PbL+H)=5.2
 K(PbL+OH)=3.2

Medium: 0.1 M Me4NO3

C14H24N2O8 H4L (5075)
 1,2-Diaminoethane-N,N'-diethanoic-N,N'-di-2-butyric acid;

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

Pb++ vlt KNO3 20°C 0.10M U K1=16.46 1969NDc (89516)1863

C14H24N2O8 H4L (7165)
 1,2-Diaminohexane-N,N,N',N'-tetraethanoic acid; (HOOCCH2)NCH2CH(C4H9)N(CH2COOH)2

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

Pb++ vlt KNO3 20°C 0.10M U K1=19.27 1974NLa (89536)1864

C14H24N2O8 H4L HMDTA CAS 1633-00-7 (920)
 1,6-Diaminohexane-N,N,N',N'-tetraethanoic acid; ((HOOCH2)2N.CH2.CH2.CH2)2

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

Pb++ sp oth/un ? ? U 1971KAa (89594)1865
 K(Pb+HL)=8.57

 Pb++ gl KNO3 20°C 0.10M U H 1964ANa (89595)1866
 K(Pb+HL)=8.24

By calorimetry: DH(Pb+L+H2O=Pb(OH)(HL))=-31.5 kJ mol-1

C14H24N2O8 H4L CAS 1633-00-7 (5076)
 4-Methyl-1,2-diaminopentane-N,N,N',N'-tetraethanoic acid;
 (HOOCH2)2NCH2CH(N(CH2COOH)2CH2CH(CH3)2

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

Pb++ vlt KNO3 20°C 0.10M U K1=19.29 1968NLb (89639)1867

C14H24N2O10 EGTA CAS 67-42-5 (349)
 Ethyleneglycol-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

Pb++ gl KNO3 25°C 0.10M U 1983FSa (89910)1868
 K(Pb+HL)=10.28

 Pb++ vlt NaNO3 25°C 0.30M U K1=8.55 1974KNc (89911)1869

 Pb++ sp NaClO4 20°C 0.10M U K1=14.84 1969NKA (89912)1870

 Pb++ cal KNO3 25°C 0.10M U H 1965WHa (89913)1871
 DH(K1)=-52.3 kJ mol-1, DS=104.5 J K-1 mol-1

 Pb++ gl KNO3 20°C 0.10M U H K1=11.8 1964ANa (89914)1872
 K(Pb+HL)=7.5
 K(Pb+PbL)=4.6

By calorimetry: DH(K1)=-55.2 kJ mol-1, DS=38.0 J K-1 mol-1

 Pb++ gl KNO3 20°C 0.10M U K1=14.71 1963FCa (89915)1873
 K(Pb+HL)=10.28

 Pb++ EMF KNO3 25°C 0.10M U K1=14.6 1960HRa (89916)1874

C14H24N4 L CAS 106202-21-5 (6711)
 7-Methyl-3,7,11,17-tetraazabicyclo[11.3.1]heptadeca-1(17),13,15-triene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=9.029	1993CDa (90000)	1875

C14H26N2O7		H2L					(1567)		
1,4,10-Trioxa-7,13-diazacyclopentadecane-N,N'-diethanoic acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=13.255 B(Pb2L)=15.69	1987DDb (90201)	1876

Pb++	gl	R4N.X	25°C	0.10M	M		K1=12.91	1986COb (90202)	1877

C14H27N3O5		H2L					(6473)		
1-Oxa-4,8,12-triazacyclotetradecane-4,12-diethanoic acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	U		K1=8.01 B(PbHL)=14.41	1992CDa (90288)	1878
Medium: 0.10 M (NMe4)NO3.									

C14H28N2O4		L					Cryptand 2,1,1 CAS 31250-06-3	(836)	
1,10-Diaza-4,7,13,18-tetraoxabicyclo[8,5,5]eicosane (2,1,1);									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	cal	none	25°C	dil	C	H		2002BSc (90423)	1879
Self medium, <0.005 M. DH(K1)=-42.0 kJ mol ⁻¹ , DS(K1)=0.3 J K ⁻¹ mol ⁻¹ .									

Pb++	gl	R4N.X	25°C	0.05M	C		K1=7.4	1997BCc (90424)	1880
Medium: 0.05 M Me4NClO4									

Pb++	ISE	non-aq	25°C	100%	U		K1=3.68	1982NSb (90425)	1881
Medium: DMSO, 0.1 M Et4NClO4									

Pb++	sp	non-aq	25°C	100%	U		K1=7.01 B(Pb2L)=11.30	1981SMb (90426)	1882
In propylene carbonate, I=0.01 M (Et4NClO4)									

Pb++	gl	alc/w	25°C	100%	C		K1=8.18 B(Pb2L)=12.22	1980SAa (90427)	1883
Medium: MeOH, 0.05 M Et4NClO4									

Pb++	EMF	non-aq	25°C	100%	C		K1=7.9	1979BLb (90428)	1884
Method: Ag electrode; competition with Ag+. Medium: MeOH, 0.05 M Me4NClO4.									

C14H28N2O6		HL					CAS 82353-42-2	(5850)	

1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7-ethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C			K1=10.42	1988CCc (90485)	1885

C14H28O7 L 21-Crown-7 CAS 33089-36-0 (2264)										
1,4,7,10,13,16,19-Heptaoxacycloheneicosane;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	cal	non-aq	25°C	100%	C	H		K1=3.76	1986ICa (90534)	1886
Medium: MeOH. DH(K1)=-20.6 kJ mol ⁻¹ , DS(K1)=2.8 J K ⁻¹ mol ⁻¹ .										

C14H30N2O4 L CAS 31255-13-7 (2448)										
N,N'-Dimethyl-cyclo-1,10-diaza-4,7,13,16-tetraoxaoctadecane;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	oth/un	25°C	?	C			K1=7.79	1991DMa (90586)	1887

C14H30N2O4 L (6566)										
N,N,N',N'-Tetrakis(2-hydroxyethyl)-trans-1,2-diaminocyclohexane;										
C6H10(N(CH2.CH2OH)2)2										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	C			K1=6.49	1991DCa (90597)	1888
K(PbL+OH)=5.55										

C14H30N2O5 L (6722)										
7,13-Bis(2-hydroxyethyl)-1,4,10-trioxa-7,13-diazacyclopentadecane										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C			K1=8.91	1995LLa (90633)	1889
Medium: Et4NC104										

C14H30N4O L (7383)										
1-(2-Hydroxycyclohexyl)-1,4,7,10-tetraazacyclododecane; H0.C6H10.C8H11N4										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	C			K1=11.40	1997DHa (90648)	1890

C14H30N4O2 L (6364)										
1,7,10,16-Tetraaza-4,13-dioxabicyclo[14.2.2]eicosane;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++ gl NaNO3 25°C 0.10M U K1=5.36 1990WHa (90659)1891

C14H30O7 L CAS 1072-40-8 (2499)
2,5,8,11,14,17,20-Heptaooxaheneicosane; CH3.0.(CH2.CH2.0)6.CH3

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

Pb++ cal none 25°C dil C H K1=2.08 2002BSc (90705)1892
Self medium, <0.005 M. DH(K1)=-3.0 kJ mol-1, DS(K1)=30 J K-1 mol-1.

Pb++ cal alc/w 25°C 100% U H K1=2.22 1985BUa (90706)1893
Medium: MeOH. DH(K1)=-38.9 kJ mol-1

C14H32N2O4 L CAS 102-60-3 (2678)
Tetra(2-hydroxypropyl)-N,N,N',N'-diaminoethane; (-CH2.N(CH2.CH(OH).CH3)2)2

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

Pb++ gl NaNO3 25°C 0.50M U K1=7.51 1995CMA (90747)1894
B(PbHL)=11.3
B(PbH-1L)=13.00

Pb++ gl NaNO3 25°C 0.10M U K1=7.66 1986HBc (90748)1895

Pb++ gl NaClO4 25°C 0.50M C K1=7.87 1979OSb (90749)1896
B(PbH-1L)=-0.42
B(PbH-2L)=-11.26

Pb++ gl oth/un 27°C 0.05M U K1=7.49 1959KEc (90750)1897

C14H32N2O10P2 H4L CAS 81963-60-2 (7240)
1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diylldimethylenediphosphonic acid;

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

Pb++ gl R4N.X 25°C 0.10M C K1=14.26 2000PSa (90769)1898
B(PbHL)=22.08
B(PbH2L)=27.04
B(PbH3L)=30.11
B(Pb2L)=19.84
Medium: 0.10 M [Et4N]NO3. B(Pb2H-1L)=11.56, B(Pb2H-2L)=0.76.

Pb++ gl KNO3 25°C 0.10M U K1=13.06 1996BJa (90770)1899
K(Pb+HL)=10.95
K(Pb+H2L)=6.81

C14H32N4O2 L CAS 252191-60-9 (7608)
1,4-Bis(3-hydroxypropyl)-1,4,7,10-tetraazacyclododecane;

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

Pb++ gl R4N.X 25°C 0.10M C K1=13.5 1999DWa (90818)1900
K(PbL=PbH-1L+H)=-10.4

Medium: 0.1 M NEt4ClO4

C14H33N5O2 L (6916)

1,4-Dioxa-7,10,13,16,19-pentaazacycloheneicosane;

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

Pb++ gl NaClO4 25°C 0.15M C K1=11.86 1994ABa (90831)1901
K(PbL+H)=6.35

C14H34N6 L (7075)

1,10-Dimethyl-1,4,7,10,13,16-hexaazacyclooctadecane;

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

Pb++ gl NaClO4 25°C 0.15M C K1=14.47 1996BBa (90856)1902

C14H36N4O12P4 H8L CAS 107446-90-2 (2015)

1,4,7,11-Tetraazacyclotetradecane-N,N',N'',N'''-tetramethylphosphonic acid;

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

Pb++ gl KNO3 25°C 1.00M U K1=15.5 1987PBa (90877)1903
K(Pb+HL)=13.9
K(Pb+H2L)=12.1
K(Pb+H3L)=9.2

C14H36N6 L TAPEN CAS 4879-98-5 (5715)

N,N,N',N'-Tetrakis(3-aminopropyl)diaminoethane; (-CH2.N(CH2.CH2.CH2.NH2)2)2

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

Pb++ gl NaClO4 25°C 0.15M C K1=7.66 1994ABd (90900)1904
K(PbL+H)=9.97
K(PbHL+H)=9.22
K(PbH2L+H)=8.12

C14H37N7 L CAS 298-85-5 (5606)

1,4,7,10,13,16,19-Heptaazacycloheneicosane;

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

Pb++ gl NaClO4 25°C 0.15M C K1=10.02 1993ABc (90916)1905
B(PbHL)=18.06
B(PbH2L)=25.65
B(PbH3L)=31.88
K(Pb+HL)=8.30

K(Pb+H2L)=6.61, K(Pb+H3L)=4.21, K(PbL+H)=8.0, K(PbHL+H)=7.6, K(PbH2L+H)=6.2.

C14H37N7 L (6456)
2,5,8,11,14,17,20-Heptaazaheneicosane; CH3.(NH.(CH2)2)6.NH.CH3

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

Pb++ gl NaCl04 25°C 0.15M C K1=9.86 1993ABc (90927)1906
B(Pb2L)=15.61
B(Pb2H-1L)=6.67
B(Pb2H-2L)=-3.67
B(PbHL)=19.47

B(PbH2L)=27.050, K(Pb+HL)=9.27, K(Pb2L+OH)=4.79, K(Pb2L(OH)+OH)=3.39.

C15H10O7 H5L Quercetin CAS 117-39-5 (5101)
3,5,7-Trihydroxy-2-(3',4'-dihydroxyphenyl)-1-benzopyran-4-one;

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

Pb++ sp alc/w 25°C 50% C 1998KBc (91024)1907
K1eff=6.05 (pH=5.0)

Medium: 50% EtOH/H2O, 0.10 M NaNO3.

C15H11NS HL CAS 15759-12-3 (5689)
2-Phenyl-8-mercaptoquinoline;

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

Pb++ EMF non-aq 25°C 100% U K1=8.3 B2=15.50 1986UBa (91090)1908
Medium: dimethylformamide, LiCl04

C15H11NS HL CAS 75955-26-9 (5690)
4-Phenyl-8-mercaptoquinoline;

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

Pb++ EMF non-aq 25°C 100% U K1=8.6 B2=15.00 1986UBa (91095)1909
Medium: dimethylformamide, LiCl04

C15H11NS2 HL CAS 100549-76-6 (5692)
5-Thiophenyl-8-mercaptoquinoline;

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

Pb++ EMF non-aq 25°C 100% U K1=8.3 B2=14.80 1986UBa (91101)1910
Medium: dimethylformamide, LiCl04

C15H11N3O HL CAS 4312-09-8 (989)
5-Phenylazo-8-hydroxyquinoline; C6H5.N:N.C9H5N.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	25°C	50%	U		K1=8.6 B2=15.09	1965TFa	(91270)1911
Medium: 50% dioxan, 0.1 M NaClO4									

C15H11N3O2		H2L					(4062)		
8-Hydroxy-5-(2'-hydroxyphenylazo)quinoline;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	25°C	50%	U		K1=8.5 B2=15.04	1965TFa	(91281)1912
Medium: 50% dioxan, 0.1 M NaClO4									

C15H11N3O2		H2L					CAS 4563-87-5 (4063)		
8-Hydroxy-5-(3'-hydroxyphenylazo)quinoline;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	25°C	50%	U		K1=8.8 B2=15.05	1965TFa	(91288)1913
Medium: 50% dioxan, 0.1 M NaClO4									

C15H11N3O2		H2L					CAS 5087-35-4 (4064)		
8-Hydroxy-5-(4'-hydroxyphenylazo)quinoline;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	25°C	50%	U		K1=9.2 B2=16.00	1965TFa	(91295)1914
Medium: 50% dioxan, 0.1 M NaClO4									

C15H12O5		HL					(1261)		
mono-Thiodibenzoylmethane; C6H5.CO.CH2.CS.C6H5									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	30°C	74%	U		K1=7.13 B2=14.21	1969LSa	(91498)1915
Medium: 74.5% dioxan, 0.018 M NaCl									
With medium (0.017 NaClO4, 74.5% dioxan): B2=17.4									

Pb++	gl	diox/w	30°C	75%	U		K1=10.11 B2=19.72	1969UTa	(91499)1916
Medium: 75% dioxan, 0.01 M Me4NI									

Pb++	gl	diox/w	30°C	75%	U		K1=10.20 B2=19.15	1966USa	(91500)1917

C15H12O2		HL					Diphenylacac CAS 120-46-7 (362)		
1,3-Diphenylpropane-1,3-dione, Dibenzoylmethane; C6H5.CO.CH2.CO.C6H5									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	30°C	75%	U		K1=9.75 B2=18.79	1953UFe	(91558)1918

C15H14N4O9S2 H5L CAS 63087-10-5 (5133)
1,5-Bis(2-hydroxy-5-sulfophenyl)mesoacetylformazan;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	20°C	0.10M	U		K1=14.62	1971SEa (91751)	1919

C15H18N2O8 H4L CAS 101455-18-9 (1902)
1-Methyl-3,4-diaminobenzene-N,N,N',N'-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	0.50M	C		K1=14.00 B(PbHL)=16.42 B(PbH-1L)=4.6 B(PbH2L2)=27.36 B(PbHL2)=22.74	2002SEa (92086)	1920

B(Pb2H2L)=19.65, B(Pb2L)=15.77.

C15H20N4 L DPTN CAS 63671-70-5 (1851)
N,N'-Bis-(2-pyridylmethyl)-1,3-diaminopropane; (C5H4N.CH2.NH.CH2)2CH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	C		K1=5.89 B(Pb(OH)L)=11.18	1995CCb (92184)	1921

From differential pulse polarography: K1=6.08; B(Pb(OH)L)=10.70

C15H24N2O9 H4L CAS 66918-20-5 (396)
2,6-Bis(aminomethyl)tetrahydropyran-N,N,N',N'-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	U		K1=14.87 K(Pb+HL)=18.66	1977PIb (92332)	1922

C15H26N4O L (7722)
1,4,7,10-Tetraaza[12]-(2,6)anisolephane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.15M	C		K1=8.44 K(PbL+H)=6.80	2000FFa (92424)	1923

Medium: 0.15 M Me4NCl.

C15H27N3O7 H3L (7396)
4,7,11-Tris(carboxymethyl)-1-oxa-4,7,11-triazacyclotridecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++ gl mixed 25°C 75% U K1=6.83 B2=12.49 1972MCb (92716)1930
Medium: 75% acetone, 0.1 M KNO3

C16H11N2OCl HL CAS 10149-93-6 (5171)
1-(4-Chlorophenylazo)-2-hydroxynaphthalene;

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

Pb++ gl mixed 25°C 75% U K1=7.20 B2=13.44 1972MCb (92731)1931
Medium: 75% acetone, 0.1 M KNO3

C16H11N2OI HL CAS 25023-35-2 (5173)
1-(4-Iodophenylazo)-2-hydroxynaphthalene;

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

Pb++ gl mixed 25°C 75% U K1=7.46 B2=13.82 1972MCb (92746)1932
Medium: 75% acetone, 0.1 M KNO3

C16H11N2O2Cl H2L CAS 3566-94-7 (3474)
1-(5-Chloro-2-hydroxyphenylazo)-2-hydroxynaphthalene;

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

Pb++ gl diox/w 30°C 75% U K1=14.85 1957SFb (92763)1933
K(Pb+H2L=PbL+2H)=-9.3

C16H11N3O3 HL CAS 6410-09-9 (5151)
1-(2-Nitrophenylazo)-2-hydroxynaphthalene;

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

Pb++ gl mixed 25°C 75% U K1=3.80 1972MCb (92800)1934
Medium: 75% acetone, 0.1 M KNO3

C16H11N3O3 HL CAS 6410-46-1 (5152)
1-(4-Nitrophenylazo)-2-hydroxynaphthalene;

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

Pb++ gl mixed 25°C 75% U K1=4.52 B2=8.34 1972MCb (92815)1935
Medium: 75% acetone, 0.1 M KNO3

C16H11N3O3S HL CAS 35778-69-9 (4090)
Diphenylthiovioluric acid;

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

Pb++ gl diox/w 30°C 75% U K1=3.84 1973CSb (92827)1936

Medium: 75% dioxan, 0.1 M NaClO4

C16H11N3O4 HL (2910)

1,3-Diphenyl-5-hydroxyimino-hexahydropyrimidine-2,4,6-trione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	diox/w	30°C	75%	C			K1=4.28 B2=8.25	1978Mgb (92836)	1937

C16H11N3O4 H2L CAS 14847-54-2 (3461)

1-(2-Hydroxy-5-nitrophenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	gl	diox/w	30°C	75%	U			K1=13.45	1957SFb (92845)	1938
									K(Pb+H2L=PbL+2H)=-7.8	

C16H12N2O HL CAS 842-07-9 (5156)

1-Phenylazo-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	mixed	25°C	75%	U			K1=8.44 B2=15.46	1972MCb (92921)	1939

Medium: 75% acetone, 0.1 M KNO3

C16H12N2O2 H2L CAS 9486-98-2 (3462)

1-(2-Hydroxyphenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	gl	mixed	25°C	75%	U				1972MCb (92955)	1940
									K(Pb+HL)=8.45	
									K(PbHL+HL)=7.83	

Medium: 75% acetone, 0.1 M KNO3

Pb++	gl	diox/w	30°C	75%	U			K1=14.65	1957SFb (92956)	1941
									K(Pb+H2L=PbL+2H)=-10.1	

C16H12N2O2 H2L CAS 14934-27-1 (5157)

1-(4-Hydroxyphenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	gl	mixed	25°C	75%	U				1972MCb (92973)	1942
									K(Pb+HL)=8.18	
									K(PbHL+HL)=6.73	

Medium: 75% acetone, 0.1 M KNO3

C16H12N2O4S H2L CAS 13964-82-4 (3475)

1-(4-Sulfoxyphenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	mixed	25°C	75%	U		K1=4.20 B2=7.72	1972MCb (93002)	1943
Medium: 75% acetone, 0.1 M KNO3									

C16H12N2O5S		H3L					SolochromeVio R CAS 94205-83-1 (4093)		
1-(2'-Hydroxy-5'-sulfophenylazo)-2-naphthol;									
Pb++	sp	oth/un	25°C	0.0	U		K1=12.5 B2=17.8	1962CRa (93023)	1944

C16H13N2O10AsS2		H5L					Thorin I CAS 3688-92-4 (2609)		
1-((2-Arsonophenyl)azo)-2-hydroxy-3,6-naphthalylldisulfonic acid;									
Pb++	gl	oth/un	30°C	?	U		K1=9.02	1964PCa (93204)	1945

C16H14N2O		HL					(1318)		
2-(2-Hydroxynaphthyliminomethyl)pyridine;									
Pb++	gl	diox/w	25°C	50%	A		K1=7.68 B2=13.26	1981RUa (93414)	1946

C16H14N4O2		H2L					(3467)		
5-Hydroxy-4-(2-hydroxyphenylazo)-3-methyl-1-phenylpyrazole;									
Pb++	gl	diox/w	30°C	75%	U		K1=15.26 K(Pb+H2L=PbL+2H)=-8.5	1952SNa (93475)	1947

C16H15NO3		HL					(901)		
L-2-(Benzoylamino)-3-phenylpropanoic acid; C6H5.CH2.CH(NH.CO.C6H5).COOH									
Pb++	gl	diox/w	25°C	50%	U T H		K1=2.97	1980SKa (93619)	1948
0.1 KNO3. Temperature range 25-45C. At 35C DH=-16.3, DS=2.2.									

C16H15N5O7S2		H2L					Cefixime CAS 79350-37-1 (8532)		
5-Thia-1-azabicyclo[4,2,0]oct-2-ene-2-carboxylic acid;									
Pb++	con	non-aq	25°C	100%	C		K1=4.98 B2= 7.10	2003GNa (93653)	1949
Medium: DMSO.									

C16H17N3O4S HL Cephalixin CAS 15686-71-2 (7748)
7-(2-Aminophenylacetyl amino)-3-methyl-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic ac.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C	M	K1=4.98 K(Pb(gly)+L)=6.42 B(Pb(gly)L)=11.40	2000GFb (93760)	1950

C16H17N3O5S H2L Cephadroxil CAS 50370-12-2 (8403)
7-[[Amino(4-hydroxyphenyl)acetyl]amino]-3-methyl-8-oxo-5-thia-1-azabicyclooct-2-ene-2-carboxylic;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=5.67	2000GFb (93766)	1951

C16H18N4 L trans-BPIC (9055)
N,N'-Bis[1-(2-pyridyl)ethylidene]-1,2-diiminoethane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	dis	non-aq	25°C	100%	C	M		20010Hb (93834)	1952

Method: distribution from buffered 0.10 M NaCl into nitrobenzene.
K(Pb+3L(org)+2A=PbL3A2(org))=13.0. HA is picric acid.

C16H18O8S4 H4L CAS 51865-21-5 (239)
1,2-Dimethylbenzene-tetrathioethanoic acid; C6H4(CH(S.CH2.COOH)2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaCl04	25°C	0.10M	U		K1=6.0	1974JBa (93889)	1953

C16H20N2O8 H4L CAS 6411-02-5 (1919)
1-Phenyl-ethylenediamine-N,N,N',N'-tetraethanoic acid (DL)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	20°C	0.10M	U		K1=18.28	1989SLa (94046)	1954

Pb++	vlt	KNO3	20°C	0.10M	U		K1=18.28	1969NDb (94047)	1955
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C16H24N2O8 H4L CAS 38557-30-1 (1256)
Ethylene-bis(N,N'-(2,6-dicarboxy)piperidine); ((HOO)2.C5H8N.CH2.)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	U		K1=16.05	1979PBa (94320)	1956

C16H24O6 L Benzo18-crown-6 CAS 14098-24-9 (513)
2,3-Benzo-1,4,7,10,13,16-hexaoxacyclooctadeca-2-ene;

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

Pb++ cal none 25°C dil C H K1=3.27 2002BSc (94444)1957
Self medium, <0.005 M. DH(K1)=-20.9 kJ mol⁻¹, DS(K1)=-7.7 J K⁻¹ mol⁻¹.

Pb++ con mixed 25°C 20% C TIH K1=3.25 1999SPc (94445)1958
Medium: 20% w/w AN/DMSO. Data for 20-80% w/w AN/DMSO and 25-55 C.
DH(K1)=-23 kJ mol⁻¹, DS(K1)=-143 J K⁻¹ mol⁻¹.

Pb++ ISE none 20°C dil C T H K1=3.22 1990TAa (94446)1959
Method: Pb ion selective electrode. Data for 15-35 C. At 15 C, K1=3.29;
35 C, K1=3.08. At 25 C, DH(K1)=-17. 0 kJ mol⁻¹, DS(K1)=4.0 J K⁻¹ mol⁻¹

Pb++ ISE none 25°C 0.0 U K1=3.19 1989TKa (94447)1960

Pb++ cal non-aq 25°C 100% C H K1=5.49 1986ICa (94448)1961
Medium: MeOH. DH(K1)=-32.0 kJ mol⁻¹, DS(K1)=-2.1 J K⁻¹ mol⁻¹.

C16H24O14 H4L CAS 61696-54-6 (6104)
1,4,7,10,13,16-Hexaoxacyclooctadeca-2,3,11,12-tetracarboxylic acid;

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

Pb++ gl R4N.X 25°C 0.10M M K1=7.6 1991FGb (94501)1962
B(PbHL)=11.6

Medium: 0.10 M Et4NNO3.

C16H26N2O10 H2L CAS 93031-54-0 (5831)
1,4,7,10-Tetraoxa-13,16-diazacyclooctadecane-11,18-dione-13,16-diethanoic acid;

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

Pb++ gl R4N.X 25°C 0.10M C K1=>11.5 2002DCb (94574)1963
Medium: 0.10 M Me4NNO3.

C16H26N6O2 L CAS 325125-72-2 (8779)
1,4,7-Tris(cyanomethyl)-1,4,7-triaza-10,13-dioxacyclopentadecane;

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

Pb++ gl R4N.X 25°C 0.10M C K1=6.4 2002TBa (94627)1964
Medium: 0.10 M Me4NCl.

C16H28N2O8 H4L (5167)
1,2-Diaminoethane-N,N'-diethanoic-N,N'-di-2-(3-methyl)butanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	20°C	0.10M	U		K1=14.18	1969NDc (94718)	1965

C16H28N2O8 H4L (5168)
 1,2-Diaminoethane-N,N'-diethanoic-N,N'-di-2-pentanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KNO3	20°C	0.10M	U		K1=16.57	1969NDc (94744)	1966

C16H28N2O8 H4L (5138)
 1,2-Diaminooctane-N,N,N',N'-tetraethanoic acid;
 (HOOCCH2)2N.CH2.CH(C6H13)N(CH2COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KNO3	20°C	0.10M	U		K1=19.20	1979MBd (94770)	1967

C16H28N2O8 H4L (2850)
 1,8-Diaminooctane-N,N,N',N'-tetraethanoic acid; ((HOOCCH2)2N(CH2)4)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	20°C	0.10M	U	H		1964ANa (94795)	1968

K(Pb+HL)=8.26

By calorimetry: DH(K1)=-34.2 kJ mol⁻¹

C16H28N4O8	H4L	DOTA	CAS 60239-18-1	(1017)
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1,4,7,10-Tetraazacyclododecane-1,4,7,10-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	sp	NaCl04	25°C	1.00M	U		K1=24.3 B(PbHL)=27.6	1995PMa (94921)	1969

Pb++	gl	R4N.X	25°C	0.10M	C		K1=22.69 B(PbHL)=26.55 B(Pb2L)=25.99 B(Pb2HL)=29.66	1992CDd (94922)	1970
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Medium: 0.10 M Me4NNO3.

Pb++	EMF	KCl	20°C	0.10M	C		K1=19.9	1981SFa (94923)	1971
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Method: Pt/H2 electrode.

Pb++	gl	KCl	20°C	0.10M	U		K1=19.89	1976SFb (94924)	1972
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C16H29N3O7 H3L (7395)
 4,8,12-Tris(carboxymethyl)-1-oxa-4,8,12-triazacyclotetradecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=11.26 K(PbL+H)=5.56	1997CCa (94953)	1973
Medium: Me4NN03									

C16H29N3O8		H3L					CAS 259211-79-5 (7775)		
1,4-Dioxa-7,10,13-triazacyclopentadecane-7,10,13-triethanoic acid;									
Pb++	gl	R4N.X	25°C	0.10M	C		K1=16.92 K(PbL+H)=3.62 K(PbHL+H)=2.0 K(PbL+Pb)=3.48 K(Pb2L+H)=3.21	2000CDd (94964)	1974
Medium: 0.10 M (Me4N)NO3. K(Pb2H-1L+H)=7.19, K(Pb2H-2L+2H)=14.49.									

C16H30N2O8		H2L					CAS 72912-01-7 (1568)		
1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-N,N'-diethanoic acid;									
Pb++	kin	NaClO4	25°C	0.20M	U		K(PbL+H)=2.00	1997LTa (95049)	1975
Medium: LiClO4									
Pb++	gl	NaNO3	25°C	0.10M	U		K1=14.54	1988HSb (95050)	1976
Pb++	gl	R4N.X	25°C	0.10M	U		K1=13.55	1983CRb (95051)	1977

C16H32N2O5		L					Cryptand 2,2,1 CAS 31364-42-8 (837)		
1,10-Diaza-4,7,13,16,21-pentaoxabicyclo[8,8,5]tricosane (2,2,1);									
Pb++	cal	none	25°C	dil	C	H		2002BSc (95264)	1978
Self medium, <0.005 M. DH(K1)=-61.9 kJ mol-1, DS(K1)=23 J K-1 mol-1.									
Pb++	gl	R4N.X	25°C	0.05M	C		K1=12.1	1997BCc (95265)	1979
Medium: 0.05 M Me4NClO4									
Pb++	ISE	non-aq	25°C	100%	U		K1=8.37	1982NSb (95266)	1980
Medium: DMSO, 0.1 M Et4NClO4									
Pb++	sp	non-aq	25°C	100%	U		K1=16.34 B(Pb2L)=20.07	1981SMb (95267)	1981
In propylene carbonate, I=0.01 M (Et4NClO4)									
Pb++	gl	alc/w	25°C	100%	C		K1=15.11	1980SAa (95268)	1982

B(Pb2L)=20.07

Medium: MeOH, 0.05 M Et4NClO4

Pb++ gl R4N.X 25°C 0.10M C K1=13.12 1977ASc (95269)1983

C16H32N4O2 L (6363)
1,7,10,16-Tetraaza-4,13-dioxatricyclo[14.2.2.2(7,10)]docosane;

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

Pb++ gl NaNO3 25°C 0.10M U K1=4.73 1990WHa (95315)1984

C16H32N4O6 L CAS 98608-90-3 (1322)
N,N'-Bis(carbamoylmethyl)-1,7,10,16-tetraoxa-4,13-diazacyclooctadecane;

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

Pb++ gl NaClO4 25°C 0.50M U K1=10.70 1981KMb (95336)1985

C16H32N6O HL CAS 303962-27-8 (7706)
2,6-Bis[(bis(2-aminoethyl)amino)methyl]phenol;

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

Pb++ gl R4N.X 25°C 0.15M C K1=10.84 2002FGc (95364)1986
B(PbHL)=20.05
B(PbH2L)=26.76
B(PbH-1L)=1.05
B(Pb2H-1L)=10.19

Medium: 0.15 M Me4NCl. B(Pb2H-2L)=-1.28.

C16H32N8O4 L CAS 157599-02-5 (8676)
1,4,7,10-Tetraazacyclododecane-1,4,7,10-tetraacetamide;

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

Pb++ gl NaNO3 25°C 0.10M C K1=>19 1995MHa (95378)1987

C16H34N2O5 L (6953)
7,13-Bis(2-methoxyethyl)-1,4,10-trioxa-7,13-diazacyclopentadecane;

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

Pb++ gl R4N.X 25°C 0.10M C K1=8.12 1995LLa (95419)1988
Medium: Et4NClO4

C16H34N2O5 L DHPK-21 CAS 106288-71-5 (8327)
N,N'-Bis(2-hydroxypropyl)-1,4,10-trioxa-7,13-diazacyclopentadecane;

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

Pb++ gl NaNO3 25°C 0.10M C K1=8.26 1986HBe (95428)1989

C16H34N2O6 L CAS 69930-74-1 (1321)
N,N'-Bis(2-hydroxyethyl)-1,7,10,16-tetraoxa-4,13-diazacyclooctadecane;

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

Pb++ gl NaClO4 25°C 0.50M U K1=9.20 1981KMb (95455)1990

C16H34N6O2 L CAS 441017-13-6 (8829)
1,7-Dimethyl-4,10-di(methylcarbamoylemethyl)-1,4,7,10-tetraazacyclododecane;

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

Pb++ gl R4N.X 25°C 0.10M C H K1=13.98 2002BBe (95479)1991
K(PbL+H)=3.98
K(PbL+OH)=3.51

Medium: (CH3)4NCl. Calorimetry: DH(K1)=-85.4 kJ mol⁻¹, DS=-18 J K⁻¹ mol⁻¹;
DH(PbL+H)=-4.2, DS(PbL+H)=62; DH(PbL+OH)=-3.8, DS(PbL+OH)=55.

C16H36N4O2 L (7297)
1,11-Bis(2-hydroxyethyl)-4,8-dimethyl-1,4,8,11-tetraazacyclotetradecane;

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

Pb++ gl R4N.X 25°C 0.10M C K1=6.8 1996BCc (95550)1992
B(PbH-1L)=-1.5

Medium: Et4NClO4

C16H36N4O2 L (7296)
1,4-Bis(2-hydroxyethyl)-8,11-dimethyl-1,4,8,11-tetraazacyclotetradecane;

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

Pb++ gl R4N.X 25°C 0.10M C K1=6.95 1996BCc (95558)1993
B(PbH-1L)=-0.7

Medium: Et4ClO4

C16H36N4O4 L (6703)
1,4,7,10-Tetrakis(2-hydroxyethyl)-1,4,7,10-tetraazacyclododecane;

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

Pb++ gl NaNO3 25°C 0.10M C K1=15.3 1995TDa (95578)1994
K(Pb+HL)=3.1
B(PbH-1L)=4.2

C16H38N6 L (6697)
1,4,7,13-Tetramethyl-1,4,7,10,13,16-hexaazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	0.15M	C		K1=13.37	1996BBa (95605)	1995

		C16H38N6O2	L				(5365)		
7,10,13-Tris(2-aminoethyl)-1,4-dioxo-7,10,13-triazacyclopentadecane;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=10.45	2000TBa (95630)	1996
							K(PbL+H)=9.21		
							K(PbHL+H)=5.98		

Medium: 0.1 M Me4NCl.

C16H40N4O12P4	H8L	CAS 41007-47-0	(2070)
1,4,7,10-Tetraethylphosphonic acid-1,4,7,10-tetraazacyclododecane;			
C8H16N4(CH2CH2.PO(OH)2)4			

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	1.00M	U		K1=16.3	1989PBb (95640)	1997
							K(Pb+HL)=12.1		
							K(Pb+H2L)=8.5		
							K(Pb+H3L)=7.1		
							K(Pb+H4L)=5.6		

C16H40N8	L	CAS 297-11-0	(5588)
1,4,7,10,13,16,19,22-Octaazacyclotetracosane;			

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	0.15M	C		K1=10.83	1993ABc (95660)	1998
							B(PbHL)=19.48		
							B(PbH2L)=26.92		
							B(PbH3L)=31.68		
							K(Pb+HL)=9.83		

K(Pb+H2L)=7.94, K(Pb+H3L)=3.9, K(PbL+H)=8.65, K(PbHL+H)=7.46, K(PbH2L+H)=4.8
 B(Pb2L)=17.57, B(Pb2HL)=23.73, K(Pb2L+H)=6.16, K(PbL+Pb)=6.74, K(Pb2L+OH)=4.0

C16H42N8	L		(6457)
2,5,8,11,14,17,20,23-Octaaza-tetracosane;			

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	0.15M	C		K1=10.37	1993ABc (95679)	1999
							B(Pb2L)=18.064		
							B(Pb2H-1L)=8.68		
							B(Pb2H-2L)=-2.19		
							B(PbHL)=20.328		

B(PbH2L)=28.912, K(Pb+HL)=9.99, K(Pb2L+OH)=4.35, K(Pb2L(OH)+OH)=2.86,
B(PbH3L)=35.845, K(2Pb+HL)=15.00, B(Pb2HL)=25.39, K(Pb2L+H)=7.33

C17H13NO3S H2L CAS 119516-70-0 (6185)
7-Hydroxy-8((2-mercaptophenyl)iminomethyl)-4-methyl-2H-1-benzopyran-2-one;

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

Pb++ gl diox/w 20°C 70% U T H K1=17.22 1988KOb (95751)2000
25 C:K=16.43; 32 C: K=15.42; 45 C:K=13.59. DH=-257 kJ mol⁻¹, DS=-549

C17H14N2O HL CAS 2046-17-5 (5214)
1-(2-Methylphenylazo)-2-hydroxynaphthalene;

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

Pb++ gl mixed 25°C 75% U K1=8.55 B2=16.30 1972MCb (95798)2001
Medium: 75% acetone, 0.1 M KNO₃

C17H14N2O HL CAS 6756-41-8 (5215)
1-(4-Methylphenylazo)-2-hydroxynaphthalene;

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

Pb++ gl mixed 25°C 75% U K1=9.43 B2=17.47 1972MCb (95813)2002
Medium: 75% acetone, 0.1 M KNO₃

C17H14N2O2 HL CAS 1229-55-6 (5216)
1-(2-Methoxyphenylazo)-2-hydroxynaphthalene;

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

Pb++ gl mixed 25°C 75% U K1=9.20 B2=17.65 1972MCb (95832)2003
Medium: 75% acetone, 0.1 M KNO₃

C17H14N2O2 HL CAS 13441-91-1 (5217)
1-(4-Methoxyphenylazo)-2-hydroxynaphthalene;

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

Pb++ gl mixed 25°C 75% U K1=8.72 B2=16.36 1972MCb (95847)2004
Medium: 75% acetone, 0.1 M KNO₃

C17H14N2O5S H3L Calmagite CAS 3147-14-6 (2875)
1-(1-Hydroxy-4-methyl-2-phenylazo)-2-naphthol-4-sulfonic acid;

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

Pb++ sp NaCl04 25°C 0.30M U K1=21.90 1969KMb (95930)2005

C17H14O3 HL (6843)
1,1-Dibenzoylpropan-2-one; CH3.CO.CH(CO.C6H5)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KCl	25°C	0.20M	U		K1=4.44	1992CMd (95967)	2006

C17H15N3OS HL (1292)
2-(4',5'-Dimethyl-2-thiazolylazo)-4-phenylphenol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	25°C	60%	U		K1=8.19 B2=13.64	1981KTa (95995)	2007

C17H16N4S2 HL (4118)
3-Methyl-4-(2'-methylthiophenylazo)-1-phenylpyrazole-5(2H)-thione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	30°C	75%	U		K1=7.8 B2=16.4	1964STc (96117)	2008

C17H16O4 H2L CAS 58134-82-0 (6193)
Benzoyl-2-hydroxy-4-methoxy-3-methylacetophenone;
C6H5.CO.CH2.CO.C6H2(OH)(OCH3)(CH3)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	mixed	30°C	60%	M I		K1=5.83 B2=10.92	1991GDb (96158)	2009

Medium: 60%v/v acetone/water; 0.1M NaClO4; data also for 65% and 75%; for 75% v/v dioxane/water and EtOH/water.

Pb++	gl	mixed	30°C	60%	M I		K1=5.83 B2=10.92	1991GDc (96159)	2010
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Medium: 60%v/v acetone/water; 0.1M NaClO4; data also for 65% and 75%; for 75% v/v dioxane/water and EtOH/water

Pb++	gl	alc/w	30°C	75%	M TI		K1=5.50 B2=9.97	1990DGc (96160)	2011
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Medium: 75% v/v EtOH/H2O

C17H24N4O6 H3L (7349)
3,6,9,15-Tetraazabicyclo[9.3.1]pentadeca-1(15),11,13-triene-3,6,9-triethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=17.48 K(PbL+H)=3.78	1997DQa (96459)	2012

Medium: Me4NN03

Pb++	EMF	KCl	20°C	0.10M	C		K1=13.7	1981SFa (96460)	2013
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Method: Pt/H2 electrode.

C17H26N4O4 H2L CAS 205595-08-0 (8972)
 3,11-Bis(carboxymethyl)-3,7,11,17-tetraazabicyclo[11.3.1]heptadeca-1(17),13,15-triene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=11.985 K(PbL+H)=3.67	1998CDa (96505)	2014

Medium: 0.10 M Me4NNO3.

C17H30N4O8 H4L TRITA CAS 60239-20-5 (1018)
 1,4,7,10-Tetraazacyclotridecane-1,4,7,10-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=19.11 B(PbHL)=23.266 B(Pb2L)=22.83 B(Pb2HL)=26.32	1992CDd (96655)	2015

Pb++	EMF	KCl	20°C	0.10M	C		K1=15.6	1981SFa (96656)	2016
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Method: Pt/H2 electrode.

Pb++	gl	KCl	20°C	0.10M	U		K1=15.63	1976SFb (96657)	2017
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C17H31N3O8 H3L CAS 282717-18-4 (7776)
 1,4-Dioxa-7,10,14-triazacyclohexadecane-7,10,14-triethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=13.67 K(PbL+H)=6.15 K(PbL+Pb)=3.57 K(Pb2H-1L+H)=6.88 K(Pb2L+H)=5.72	2000CDd (96683)	2018

Medium: 0.10 M (Me4N)NO3.

C17H36N4O4 H2L (8282)
 2,12-Dimethyl-5,9-di(2-carboxyethyl)-2,5,9,12-tetraazatridecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=7.00 K(PbL+H)=7.3	1989HAa (96779)	2019

C17H37N3O4 L CAS 119167-07-6 (6042)
 4,7,10-Tri-(2-hydroxypropyl)-1-oxa-4,7,10-triazacyclododecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++ gl NaNO3 25°C 0.10M U K1=12.17 1988HSb (96786)2020

C17H38N4O3 L (7318)
1,4,8-Tris(2-hydroxyethyl)-11-methyl-1,4,8,11-tetraazacyclotetradecane;

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

Pb++ gl R4N.X 25°C 0.10M C K1=7.0 1997RWa (96798)2021
B(PbH-1L)=-2.0

Medium: Et4NC1O4

C17H38N6 L CAS 191231-50-2 (7348)
1,5-Bis(1,4,7-triaza-1-cyclononyl)pentane;

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

Pb++ gl R4N.X 25°C 0.10M C K1=18.3 1997WTa (96810)2022
B(PbHL)=21.9

Medium: NEt4ClO4

C17H39N5O2 L (6706)
10,13,16-Trimethyl-1,4-dioxa-7,10,13,16,19-pentaazacycloheneicosane;

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

Pb++ gl NaClO4 25°C 0.15M C K1=10.58 1994ABa (96827)2023

C17H41N7 L (7076)
1,4,7-Trimethyl-1,4,7,10,13,16,19-heptaazacyclohenicosane;

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

Pb++ gl NaClO4 25°C 0.15M C K1=10.47 1996BBa (96835)2024
B(PbHL)=17.21

C18H15N3O3S HL CAS 61625-17-0 (4139)
Di-4-tolylthiovioluric acid;

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

Pb++ gl diox/w 30°C 25% M T H K1=3.79 B2= 8.40 1978MGe (97015)2025

Medium: 25% dioxane/H2O, 0.10 M NaClO4. Data for 40, 45 and 50 C.

DH(K1)=-54.8 kJ mol⁻¹, DS(K1)=-108 J K⁻¹ mol⁻¹; DH(K2)=-40.6, DS(K2)=-45.2

C18H15N6O8AsS H3L Sulfarsazen CAS 5941-02-6 (4140)
4-(4'-Sulfophenylazo)anilinoazo-4-nitrobenzene-2-arsonic acid;

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

Pb++ sp alc/w 20°C 4% U K1=16.5 1965PSe (97089)2026

$$K(\text{PbL}+\text{H})=5.7$$

Medium: 4% EtOH, 0.08 M KCl

C18H16N4O3S HL (3505)
(2-(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-yl)azophenylthio)ethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	diox/w	30°C	75%	U		K1=10.11	1962SCc (97200)	2027
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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
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Pb++	gl	diox/w	30°C	75%	U		K1=9.56	1962SCc (97212)	2028
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C18H18N2O5S2 L CAS 350014-32-3 (8596)
3,5,6,8,9,11-Hexahydro-2,17:12,14-dietheno-7,4,10,1,13-benzoxadithiadiazacyclopentadecine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	sp	non-aq	25°C	100%	C		K1=6.24	2002AAa (97222)	2029
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Medium: CH3CN. Method: fluorescence.

C18H18N2S3 L CAS 183310-21-6 (8595)
2,5,8-Trithia[9],(2,9)-1,10-phenanthrolineophane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	sp	non-aq	25°C	100%	C		K1=7.5	2002AAa (97237)	2030
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Medium: CH3CN. Method: fluorescence.

C18H18N4 L CAS 16858-01-8 (1528)
Tris(2-pyridylmethyl)amine; (C5H4NCH2)3N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	ISE	KN03	20°C	0.10M	C	H	K1=8.58	1977AHc (97270)	2031
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$$K(\text{PbL}(\text{OH})+\text{H}) > 11$$

DH1=-43.8 kJ mol⁻¹, DS1=14.2

C18H19N5O HL CAS 58858-65-5 (4130)
4-(2'-Dimethylaminophenylazo)-3-methyl-1-phenylpyrazol-5(2H)-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	diox/w	30°C	75%	U		K1=8.9 B2=17.2	1963SYa (97317)	2032
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C18H20N2O6 H4L CAS 10328-28-6 (3501)
Ethylenedinitrilo-N,N'-bis(2'-hydroxyphenyl)-N,N'-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KCl	25°C	0.10M	C		K1=19.47 K(PbL+H)=6.67 K(PbHL+H)=4.72	1993MMa (97407)	2033

Pb++	gl	KNO3	25°C	0.10M	C		K1=18.4 K(Pb+HL)=14.9 K(Pb+H2L)=9.9 *K(PbH2L)=-6.5 *K(PbHL)=-10.1	1992GVa (97408)	2034
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C18H20N2O6 H4L EHPG CAS 10328-28-6 (429)
N,N'-Ethylene-bis-(2-(2'-hydroxyphenyl))glycine; (H00CCH(C6H4OH)NHCH2.)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	sp	NaCl04	20°C	0.10M	U		K1=15.09 K(Pb+HL)=12.91 K(Pb+H2L)=9.64	1973NOb (97438)	2035

C18H20N4 L CAS 284497-48-9 (9056)
(1R,2R)-N,N'-Bis(2-pyridylmethylidene)-trans-1,2-diiminocyclohexane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	dis	non-aq	25°C	100%	C	M		20010Hb (97460)	2036

Method: distribution from buffered 0.10 M NaCl into nitrobenzene.
K(Pb+3L(org)+2A=PbL3A2(org))=14.4. HA is picric acid.

C18H20N4 L cis-BPIC CAS 90605-88-2 (9053)
(1R,2S)-N,N'-Bis(2-pyridinylmethylene)-1,2-cyclohexanediamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	dis	non-aq	25°C	100%	C	M		20030Ha (97467)	2037

Method: Distribution from buffered 0.10 M KNO3 into nitrobenzene.
K(Pb+3L(org)+2A=PbL3A2(org))=14.9. HA is picric acid.

C18H21N5 L (7482)
2,5,8-Triaza[9]-[9](2,9)[1,10]-phenanthrolineophane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C	H	K1=18.70 K(PbL+H)=1.9	1999BBb (97501)	2038

Medium: NMe4NO3. DH(K1)=-73.4 kJ mol⁻¹; DH(PbHL)=-4.9.

C18H22O4 H2L B(CH2AcAcH)2 (2252)
1,3-Di(hexa-3,5-dione)-benzene; C6H4((CH2)2.CO.CH2.CO.CH3)2

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

Pb++ gl diox/w 24°C 50% U K1=8.1 1979ACa (97561)2039

C18H25N3 L CAS 17327-80-9 (7651)

1,9-Diphenyl-2,5,8-triazanonane;

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

Pb++ gl NaClO4 25°C 0.15M C K1=6.81 1998PGc (97639)2040

K(PbL+OH)=5.00

C18H25N3O7S2 L CAS 211120-80-8 (8706)

24-Hydroxy-22-nitro-9,12-dioxo-6,15-dithia-3,18-diazabicyclotetracos-1(24),20,22-triene-4,17-di;

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

Pb++ cal alc/w 25°C 70% C H K1=2.10 1998HBc (97647)2041

Medium: 70% MeOH/H2O. DH(K1)=-27.3 kJ mol⁻¹, DS(K1)=-51.3 J K⁻¹ mol⁻¹.

C18H26N6 L (6628)

3,6,14,17,23,24-Hexaazatricyclo[17.3.1.1]tetracos-1(23),8,10,12(24),19,21-hexaene;

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

Pb++ gl KNO3 25°C 0.10M C K1=13.84 1996DHa (97720)2042

DH(K1)=-52.5 kJ mol⁻¹

Pb++ gl KCl 25°C 0.10M M K1=ca. 21 1996MBb (97721)2043

K(PbL+H)=4.1

K(PbHL+H)=4.1

C18H26O4S8 e L CAS 334475-11-5 (5980)

3,6-Bis(methylsulfanyl)-2,7-(4,7,10,13-tetraoxa-1,16-dithiahexadecane-1,16-diyl)tetrathiafulvalen

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

Pb++ nmr mixed 25°C 50% C K1=3.7 2001DMa (97728)2044

Medium: 50% v/v CDCl3/CD3CN. Method: 1H NMR

C18H27N5O6 L CAS 211120-75-1 (8705)

21-Hydroxy-6,12-dimethyl-19-nitro-9-oxa-3,6,12,15-tetraazabicycloheptacos-1,17,19-triene-4,14-;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	cal	alc/w	25°C	70%	C	H	K1=3.23	1998HBc (97768)	2045
Medium: 70% MeOH/H2O. DH(K1)=-63.0 kJ mol-1, DS(K1)=-149 J K-1 mol-1.									

C18H28N4O4		H2L					(7378)		
7-Methyl-3,7,11,17-tetraazabicyclo[11.3.1]heptadeca-1(17),13,15-triene-3,11-diethanoic acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=10.89 K(PbL+H)=4.96 K(Pb(OH)L+H)=9.9	1997CDb (97787)	2046
Medium: NMe4NO3									

C18H28O5		L					CAS 15196-73-3	(2359)	
2,3-(4'-Dimethylethylbenzo)-1,4,7,10,13-pentaoxacyclopentadeca-2-ene;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	ISE	non-aq	25°C	100%	U		K1=7.85 B2=14.39	1982MDa (97810)	2047
Medium: propylene carbonate									

C18H28O6		H2L		O(EAcAcE)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
Pb++	gl	diox/w	24°C	50%	U		K1=9.1	1979ACa (97831)	2048

C18H30N2O11		H2L					CAS 93049-99-1	(5832)	
1,4,7,10,13-Pentaoxa-16,19-diazacycloeicosane-14,21-dione-16,19-diethanoic acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=>10.5	2002DCb (97914)	2049
Medium: 0.10 M Me4NNO3.									

C18H30N2O12		H4L					(7125)		
1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-bis(malonic acid);									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.15M	U		K1=13.0	1995BGa (97929)	2050

C18H30N4O12		H6L		TTHA			CAS 869-52-3	(694)	
Triethylenetetraaminehexaethanoic acid;((HOOC.CH2)2N.CH2.CH2.N(CH2.COOH).CH2)2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	KCl	30°C	0.30M	U		B(Pb2L)=29.67	1988HPa	(98077)2051
Pb++	gl	KN03	25°C	0.10M	U		K1=18.1 K(PbL+H)=8.10 K(PbHL+H)=3.78 K(PbH2L+H)=2.80 B(Pb2L)=28.7	1971YMb	(98078)2052
Pb++	gl	KN03	25°C	0.10M	U		K1=17.1 K(PbL+H)=8.20 K(PbL+Pb)=11.0 K(Pb2L+H)=3.0 K(Pb2HL+H)=2.6	1970HAa	(98079)2053

By ion-selective electrode (Hg): $B(Pb2L)=28.1$

Pb++	gl	KN03	25°C 0.10M U	K1=16.8 B(Pb2L)=28.1 K(Pb+HL)=14.9	1969LUa (98080)2054
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Pb++ gl KN03 25°C 0.10M U K1=19.5 1968SCa (98081)2055

C18H32NO5PS HL CAS 1602-56-8 (5268)
Dihexylphenylsulfonylamidophosphate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	dis	oth/un	?	?	U		K1=4.2	B2=8.10	1971SSh (98129)	2056

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	KN03	25°C	0.10M	C			K1=14.319 B(PbHL)=19.07 B(PbH2L)=23.32 B(Pb2L)=18.01 B(Pb2HL)=21.42	1992CDd	(98219)2057

Pb++ g1 NaNO3 25°C 0.20M C K1=15.00 1991KKa (98220)2058

Pb++ EMF KCl 20°C 0.10M C K1=14.7 1981SFa (98221)2059
Method: Pt/H2 electrode.

Pb++ gl KCl 20°C 0.10M U K1=14.73 1976SFb (98222)2060

C18H32N4O8 H4L (8192)

3-Methyl-1,5,8,11-tetraazacyclotridecane-1,5,8,11-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	EMF	KCl	20°C	0.10M	C			K1=17.8	1981SFa (98247)	2061
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Method: Pt/H2 electrode. For the 3-ethyl- derivative, K1=13.6;

for the 3,3-dimethyl- derivative, K1=8.1

C18H32N4O9		H4L						CAS 189282-31-3	(8974)	
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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
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Pb++	gl	R4N.X	25°C	0.10M	C			K1=15.94	1999CDb (98260)	2062
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K(PbL+H)=5.82

K(PbHL+H)=3.32

K(PbL+Pb)=4.80

K(Pb2L+H)=4.18

Medium: 0.10 M NMe4NO3. *K(Pb2L)=-7.06.

C18H32O8		L						CAS 473704-12-0	(8708)	
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4-[(2-Propenyloxy)methyl]-2,5,8,11,14,17,20-heptaioxabicyclo[7.6.6]heneicosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	cal	none	25°C	0.0	C	H		K1=2.42	2001ZKd (98274)	2063
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Self-medium, ca. 0.005 M. DH(K1)=-8.3 kJ mol⁻¹, DS(K1)=19 J K⁻¹ mol⁻¹.

C18H33N3O9		H3L						(6700)		
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1,7,13-Trioxa-4,10,16-triazacyclooctadecane-N,N',N''-triethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	gl	KCl	25°C	0.10M	C			K1=15.82	1993DSa (98300)	2064
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K(PbL+H)=4.47

B(Pb2L)=19.39

K(Pb2L+H)=2.53

K(Pb(OH)L+H)=11.54

K(Pb2(OH)L+H)=10.98

C18H34N2O2		L						(7388)		
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N,N'-Bis(2-hydroxycyclohexyl)-trans-cyclohexane-1,2-diamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	gl	NaNO3	25°C	0.10M	U			K1=4.80	1997SHa (98322)	2065
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C18H34N2O8		H2L						CAS 68670-15-5	(5851)	
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1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-di-(3-propanoic acid);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=9.20	1988CCc (98342)	2066

C18H36N2O6		L	Cryptand 2,2,2		CAS 23978-09-8		(514)		
1,10-Diaza-4,7,13,16,21,24-hexaoxabicyclo[8.8.8]hexacosane;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	cal	none	25°C	dil	C	H		2002BSc (98687)	2067
Self medium, <0.005 M. DH(K1)=-58.8 kJ mol-1, DS(K1)=40.9 J K-1 mol-1.									

Pb++	gl	R4N.X	25°C	0.05M	C		K1=12.5	1997BCc (98688)	2068
Medium: 0.05 M Me4NC104									

Pb++	vlt	NaNO3	25°C	0.50M	C		K1=12.9 K(Pb+L+OH)=20.51 K(Pb+L+2OH)=23.71	1995CMb (98689)	2069

Pb++	sp	NaClO4	25°C	0.50M	U		K(PbL+OH)=4.26	1988STa (98690)	2070

Pb++	ISE	non-aq	25°C	100%	U		K1=7.23	1982NSb (98691)	2071
Medium: DMSO, 0.1 M Et4NC104									

Pb++	sp	non-aq	25°C	100%	U		K1=16.00 B(Pb2L)=21.20	1981SMb (98692)	2072
In propylene carbonate, I=0.01 M (Et4NC104)									

Pb++	gl	alc/w	25°C	100%	C		K1=14.84 B(Pb2L)=19.63	1980SAa (98693)	2073
Medium: MeOH, 0.05 M Et4NC104									

Pb++	vlt	non-aq	25°C	100%	C	I	K1=20.1	1979BLb (98694)	2074
Method: polarography. Medium: MeOH, 0.05 M Me4NC104. Also K1=12.7 (H2O), 6.3 (DMSO), 26.3 (CH3CN).									

Pb++	gl	R4N.X	25°C	0.10M	C		K1=12.72	1977ASc (98695)	2075

Pb++	gl	R4N.X	25°C	0.10M	C	H	K1=12.36	1975ANa (98696)	2076
Medium: Me4NNO3. DH(K1)=-57.7 kJ mol-1, DS=-42.3									

Pb++	gl	R4N.X	25°C	0.05M	C		K1=12.0	1975LSc (98697)	2077

C18H38N2O4		L			(6449)				
7,16-Di(1-Methylethyl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	oth/un	25°C	?	C		K1=6.19	1991DMa (98818)	2078

C18H38N2O6 L CAS 72911-99-0 (649)
4,13-Bis(2-methoxyethyl)-1,7,10,16-tetraoxo-4,13-diazacyclooctadecane;

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

Pb++ gl NaNO3 25°C 0.10M C K1=7.54 1991DHa (98843)2079

Pb++ gl NaClO4 25°C 0.50M U K1=8.39 1981KMb (98844)2080

C18H38N2O6 L (5802)
7,16-Di(2-hydroxypropyl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;

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

Pb++ gl NaNO3 25°C 0.10M U K1=8.57 1986HBc (98853)2081

C18H40N4O4 L CAS 89066-60-2 (867)
N,N',N'',N'''-Tetrakis(2-hydroxyethyl)-1,4,8,11-tetraazacyclotetradecane;

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

Pb++ gl NaNO3 25°C 0.10M U K1=6.28 1984MMc (98923)2082
K(PbL+OH)=ca. 5.1

C18H45N9 L (5838)
1,4,7,10,13,16,19,22,25-Nonaazacycloheptacosane;

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

Pb++ gl NaClO4 25°C 0.15M C K1=9.77 1993ABc (98971)2083
B(PbHL)=19.15
B(PbH2L)=27.81
B(PbH3L)=34.28
K(Pb+HL)=9.56

K(Pb+H2L)=8.82, K(Pb+H3L)=6.5, K(PbL+H)=9.38, K(PbHL+H)=8.66, K(PbH2L+H)=6.5
B(Pb2L)=18.46, B(Pb2HL)=24.89, B(Pb2H-1L)=8.59, B(Pb2H-2L)=-2.17, & others.

C18H47N9 L CAS 133128-72-0 (6458)
2,5,8,11,14,17,20,23,26-Nonaaza-heptacosane;

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

Pb++ gl NaClO4 25°C 0.15M C K1=11.32 1993ABc (98983)2084
B(Pb2L)=19.38
B(Pb2H-1L)=9.74
B(Pb2H-2L)=-0.99
B(PbHL)=20.90

B(PbH2L)=29.66, K(Pb+HL)=10.32, K(Pb2L+OH)=4.09, K(Pb2L(OH)+OH)=3.00,
B(PbH3L)=37.00, B(PbH4L)=42.74, K(2Pb+HL)=16.09, K(Pb2L+H)=7.29.

C19H13N3O7S2 H3L SNAZOXS CAS 117-87-3 (995)
8-Hydroxy-7-(4'-sulfo-1'-naphthylazo)-quinoline-5-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	sp	NaClO4	25°C	0.10M	U			K1=7.24 B2=14.63 K(Pb+HL)=3.20 K(Pb+2HL)=6.55	1988MJa (99049)	2085

Pb++	sp	NaClO4	25°C	0.10M	U			K1=7.24 B2=14.63	1979MPd (99050)	2086
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C19H15N08 H4L Alizarin Comp. CAS 3952-78-1 (671)
(3,4-Dihydroxy-2-anthraquinonyl-methyl)iminodiethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	sp	NaNO3	20°C	0.10M	U			K(Pb+HL)=11.69 K(PbHL+Pb=Pb2L+H)=0.8	1982WIa (99139)	2087

C19H17N3O4S2 HL Cephaloridine CAS 50-59-9 (8404)
7-[a-(2-Thienyl)acetamido]-3-(1-pyridylmethyl)-3-cephem-4-carboxylic acid betaine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C			K1=8.00	2000GFb (99194)	2088

C19H18N4O3S H2L (4145)
4-(2'-(2''-Carboxyethylthio)Phe-azo)-3-Me-1-Phe-pyrazole-5(2H)-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	diox/w	30°C	75%	U			K1=9.89	1965SMh (99230)	2089

C19H18N4O4 H2L (4142)
4-(2'-(2''-Carboxyethoxy)phenylazo)-3-methyl-1-Phe-pyrazol-5(2H)-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	diox/w	30°C	75%	U			K1=9.9	1965SMh (99251)	2090

C19H19N7O6 H3L Folic acid CAS 75708-92-8 (194)
Pteroylglutamic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	KNO3	30°C	0.10M	U	I		K1=3.13 B2=6.33 I=0: K1=3.30, K2=3.20. I=0.01: K1=3.25, K2=3.20. I=0.05: K1=3.15, K2=3.18	1970Nda (99289)	2091

C19H20N2S2 L CAS 403819-60-3 (8597)
3,6,7,8,9,11-Hexahydro-2,17:12,14-Dietheno-5H-4,10,1,13-benzodithiadiazacyclopentadecine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ sp non-aq 25°C 100% C K1=6.07 B2= 8.29 2002AAa (99303)2092
Medium: CH3CN. Method: fluorescence.

C19H28N4O6 H3L CAS 106967-44-6 (8973)
3,7,11-Tris(carboxymethyl)-3,7,11,17-tetraazabicyclo[11.3.1]heptadeca-1(17),13,15-triene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ gl R4N.X 25°C 0.10M C K1=12.83 1998CDa (99411)2093
K(PbL+H)=4.64

Medium: 0.10 M Me4NN03.

C19H39N3O5 L CAS 60598-00-7 (1537)
4-Methyl-1,4,10-triaza-7,13,16,21,24-pentaoxa-bicyclo[8,8,8]hexacosane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ gl R4N.X 25°C 0.10M U K1=14.1 1978LMa (99495)2094
K(Pb+HL)=6.2

C19H41N3O5 L (5876)
7,10,13-Tris(2-hydroxypropyl)-1,4-dioxa-7,10,13-triazacyclopentadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ gl NaNO3 25°C 0.10M C K1=9.09 1989HBa (99508)2095

C19H42N4O4 L THEC-15 (6950)
N,N',N'',N'''-Tetrakis(2-hydroxyethyl)-1,4,8,12-tetraazacyclopentadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ gl NaNO3 25°C 0.10M C K1=4.9 1995TDa (99515)2096
B(PbH-1L)=-3.2

C19H43N5O3 L (6707)
13,16,19-Trimethyl-1,4,7-trioxa-10,13,16,19,22-pentaazacyclotetracosane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ gl NaClO4 25°C 0.15M C K1=9.30 1994ABa (99525)2097
K(PbL+H)=6.49

C20H13N3O7S H3L Eriochrome Bl T CAS 1787-61-7 (99%)
1-(1-Hydroxy-2-naphthylazo)-6-nitro-2-naphthol-4-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	sp	NaCl04	20?°C	0.30M	U			K1=13.19	1968KSc (99573)	2098

C20H14N2O HL (5291)
1-(1-Naphthylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	mixed	25°C	75%	U			K1=7.32 B2=14.04	1972Mcb	(99602)2099
Medium: 75% acetone, 0.1 M KNO3										

C20H14N2O HL CAS 2653-64-7 (5292)
1-(2-Naphthylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	mixed	25°C	75%	U			K1=8.02 B2=14.97	1972Mcb (99617)	2100
Medium: 75% acetone, 0.1 M KNO3										

C20H14N2O2 H2L CAS 13082-06-9 (3506)
1,1'-Azo-(2-hydroxynaphthalene);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K	values	Reference	ExptNo
Pb++	gl	diox/w	30°C	75%	U					1957SFb (99627)	2101
									K(Pb+H2L=PbL+2H)=-9.3		

C20H16N4O5S H2L EriochromeRed B CAS 14954-75-7 (3510)
4-(4,5-Dihydro-3-Me-5-oxo-1-Phe-1H-pyrazol-4-ylazo)-3-naphthol-1-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	diox/w	30°C	75%	U				1957SFb (99797)	2102
								K(Pb+H2L=PbL+2H)=-8.3		

C20H19N3O3S	HL	CAS 380496-12-8	(9100)
1,3-Di(3-ethylphenyl)-4,5,6-pyrimidinetrione-2-thio-5-oxime;			

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	diox/w	25°C	75%	U T H		K1=4.43	B2= 8.02	2001SSd	(99875)2103
Medium: 75% v/v dioxan/H2O, 0.10 NaCl04. Data for 30 and 35 C. DH(B2)=-0.17 kJ mol-1.										

C20H19N3O3S	HL	CAS 380496-13-9	(9101)
1,3-Di(4-ethylphenyl)-4,5,6-pyrimidinetrione-2-thio-5-oxime;			

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	diox/w	25°C	75%	U T H		K1=4.29 B2= 7.35	2001SSd (99884)	2104
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Medium: 75% v/v dioxan/H2O, 0.10 NaClO4. Data for 30 and 35 C.
DH(B2)=-0.59 kJ mol-1.

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	KNO3	25°C	0.10M	U		K1=18.24	1967LMd (100013)	2105
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K(Pb+HL)=14.76
K(Pb+H2L)=10.38

C20H24N6O6	H2L	EDTAPA					CAS 41314-78-7	(7801)	
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Ethylenedinitrilo-N,N'-diethanoic-N,N'-bis(2-pyridylacetamido) acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	NaClO4	25°C	0.10M	M H		K1=8.24	1998DTa (100044)	2106
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Medium: 0.10 M KClO4. By calorimetry, DH(K1)=-48.22 kJ mol-1,
DS(K1)=-4.0 J K-1 mol-1.

C20H24O6	L	DiBz-18-Crown-6					CAS 14187-32-7	(604)	
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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
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Pb++	con	mixed	25°C	90%	C		K1=3.36	2003ISa (100207)	2107
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Medium: 90% v/v DMSO/H2O.

Pb++	con	non-aq	25°C	100%	C TIH		K1=1.96	2001RKa (100208)	2108
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Medium: DMF. Data for 15-55 C. Also data for 25-75% mol% DMF/AN.
DH(K1)=-46 kJ mol-1, DS(K1)=-197 J K-1 mol-1.

Pb++	vlt	mixed	25°C	90%	C		K1=3.0	1996SSc (100209)	2109
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Method: polarography. Medium: 90% w/w CH3CN/H2O.

Pb++	vlt	alc/w	25°C	100%	C		K1=7.74	1987CBd (100210)	2110
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B(Pb2L)=14.04
Medium: methanol, 0.10 M Et4NI or Bu4NClO4. Method: polarography.

Pb++	sol	none	25°C	0.0	U I		K1=1.89	1975SNa (100211)	2111
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C20H26N2O2S	L						(7109)		
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3,4:9,10-Dibenzo-1,12-diaza-5,8-dioxa-15-thiacycloheptadecan-3,9-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++ EMF alc/w 25°C 95% U K1=4.5 1995ABa (100305)2112
 Medium: 95% MeOH/H2O. Also data for diaza-dioxa-thia ligands with smaller and larger ring sizes.

Pb++ gl alc/w 25°C 95% U K1=8.0 1994ABg (100306)2113
 Medium: 95% v/v MeOH/H2O, 0.1 M Et4NC104

C20H26N2O3 L (7551)
 1,12-Diaza-3,4:9:10-dibenzo-5,8,15-trioxacycloheptadecan-3,9-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++ gl alc/w 25°C 95% U K1=5.5 1994ABg (100308)2114
 Medium: 95% v/v MeOH/H2O, 0.1 M Et4NC104

C20H26N2O3 L OdienNtnH4 CAS 85735-84-8 (5943)
 1,15-Diaza-3,4:12,13-dibenzo-5,8,11-trioxacycloheptadecan-3,12-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++ gl alc/w 25°C 95% C K1=4.9 1998DLA (100319)2115
 Medium: 95% MeOH/H2O, 0.10 M Et4NC104.

Pb++ gl alc/w 25°C 95% U K1=5.5 1994ABh (100320)2116
 Medium: 95% MeOH/H2O, 0.10 M NEt4ClO4. For the 4-thia analogue: K1=8.0

C20H26N2S3 L (6958)
 9,10:15,16-Dibenzo-1,7-diaza-4,11,14-trithiacycloheptadeca-9,15-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++ gl alc/w 25°C 95% U K1=ca.3 1994ABh (100323)2117
 Medium: 95% MeOH/H2O, 0.10 M NEt4ClO4. For the 4-oxa analogue: K1=ca.3

C20H26N6 L CAS 221350-58-9 (2790)
 2,5,8,11-Tetraaza[12]-[12](2,9)[1,10]-phenanthroline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++ gl R4N.X 25°C 0.10M C H K1=15.62 1999BBb (100338)2118
 K(PbL+H)=4.9
 Medium: NMe4NO3. DH(K1)=-46.0 kJ mol⁻¹; DH(PbHL)=-25.2.

C20H27N3O2 L OenNdienH4 CAS 77016-63-8 (5938)
 1,12,15-Triaza-3,4:9,10-dibenzo-5,8-dioxacycloheptadecan-3,9-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++ gl alc/w 25°C 95% C K1=8.1 1998DLA (100370)2119

Medium: 95% MeOH/H₂O, 0.10 M Et₄NClO₄.

Pb++ gl alc/w 25°C 95% U K1=8.1 1994ABg (100371)2120
Medium: 95% v/v MeOH/H₂O, 0.1 M Et₄NClO₄

Pb++ gl alc/w 25°C 95% U K1=8.1 1994ABh (100372)2121
Medium: 95% MeOH/H₂O, 0.1 M NEt₄ClO₄. For the 11,14-dithia analogue: K1=4.5

C₂₀H₂₇N₃O₂ L CAS 168279-86-5 (7556)
1,8,15-Triaza-3,4:12,13-dibenzo-5,11-dioxacycloheptadecan-3,12-diene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ gl alc/w 25°C 95% C K1=5.7 1998DLA (100380)2122
Medium: 95% MeOH/H₂O, 0.10 M Et₄NClO₄.

C₂₀H₂₇N₃S₂ L (7660)
1,12,15-Triaza-3,4:9,10-dibenzo-5,8-dithiacycloheptadecan-3,9-diene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ gl alc/w 25°C 95% U K1=4.5 1994ABg (100382)2123
Medium: 95% v/v MeOH/H₂O, 0.1 M Et₄NClO₄

C₂₀H₂₉N₅ L (6718)
3,4:9,10-Dibenzo-1,5,8,12,15-pentaazacycloheptadeca-3,9-diene

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ EMF alc/w 25°C 95% U K1=9.4 1995ABa (100407)2124
Medium: 95% MeOH. Data for the 15-thia- (5.9) and 15-oxa- (6.7) analogues

C₂₀H₃₀N₄ L CAS 140840-03-5 (7652)
1,12-Diphenyl-2,5,8,11-tetraazadodecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ gl NaClO₄ 25°C 0.15M C K1=9.68 1998PGc (100421)2125
K(PbL+OH)=3.84

C₂₀H₃₀N₆ L (7250)
3,7,15,19,25,26-Hexaazatricyclo[19.3.1.1]hexacos-1(25),9,11,13(26),21,23-hexaene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
Pb++ gl KNO₃ 25°C 0.10M C H K1=9.57 1996DHa (100432)2126
DH(K1)=-36.8 kJ mol⁻¹

C₂₀H₃₁N₇ L CAS 350501-24-5 (7976)
3,8,11,14,17,20,25-Heptaazatricyclo[20.3.1.12,6]heptacos-1(26),2,4,6(27),22,24-hex

aene

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	U	H	K1=9.63 K(PbL+H)=7.0 K(PbHL+H)=5.9 K(PbH2L+H)=5.4 K(PbL+OH)=4.3	2001ABa (100447)	2127

Medium: 0.10 M NMe4Cl. By calorimetry: DH(K1)=-31.3 kJ mol⁻¹, DH(PbHL)=-38.5, DH(PbH2L)=-40.5, DH(PbH3L)=-21.7.

C20H31N7 L CAS 350501-28-9 (7974)
8,11,14,17,20,26,27-Heptaazatricyclo[20.3.1.12,6]heptacos-1(26),2,4,6(27),22,24-hexaene

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	U	H	K1=12.96 K(PbL+H)=6.20 K(PbHL+H)=5.92 K(PbH2L+H)=3.92	2001ABa (100452)	2128

Medium: 0.10 M NMe4Cl. By calorimetry: DH(K1)=-36.4 kJ mol⁻¹, DH(PbHL)=-30.5, DH(PbH2L)=-40.5, DH(PbH3L)=-34.3.

C20H34N4Fe L (7287)
1,1-Bis(5-methyl-2,5-diazaheptyl)ferrocene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C		K1=7.15 B(PbHL)=14.12 B(PbH-1L)=-1.92	1996TBb (100511)	2129

C20H35N5O10 H5L (6545)
1,4,7,10,13-Pentaazacyclopentadecane-N,N',N'',N''',N''''-pentaethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.20M	C		K1=18.26	1991KKa (100544)	2130

C20H36N4O8 H4L (8193)
3,3-Dimethyl-1,5,8,12-tetraazacyclotetradecane-1,5,8,12-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	EMF	KCl	20°C	0.10M	C		K1=7.3	1981SFa (100576)	2131

Method: Pt/H2 electrode.

C20H36O6 L DiCy-18-crown-6 CAS 16069-36-6 (1653)

2,3:11,12-Dicyclohexyl-1,4,7,10,13,16-hexaoxacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	con	mixed	25°C	90%	C			K1=3.55	2003ISa (100688)	2132
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Medium: 90% v/v DMSO/H2O.

Pb++	cal	none	25°C	dil	C	H		K1=4.15	2002BSc (100689)	2133
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Self medium, <0.005 M. DH(K1)=-25.0 kJ mol⁻¹, DS(K1)=-4.4 J K⁻¹ mol⁻¹.

Pb++	con	alc/w	25°C	40%	C			K1=6.83	2002ISa (100690)	2134
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Medium: 40% EtOH/H2O.

Pb++	vlt	R4N.X	22°C	0.02M	C	I		K1=3.9	2002RYa (100691)	2135
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Method: DPP in DMF, 0.025 M Et4NClO4. By conductivity, K1=3.60.
Data for 0-100 mol% DMF/H2O, and MeOH/H2O, AN/H2O and PrOH/H2O mixtures.

Pb++	nmr	non-aq	27°C	100%	C	I		K1=11.32	2001KZa (100692)	2136
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Method: 7Li nmr; competitive binding study. Medium: nitromethane.
In acetonitrile, K1=5.13

Pb++	con	mixed	25°C	20%	C	TIH		K1=4.28	1999SPc (100693)	2137
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Medium: 20% w/w AN/DMSO. Data for 20-80% w/w AN/DMSO and 25-55 C
DH(K1)=-26 kJ mol⁻¹, DS(K1)=-7 J K⁻¹ mol⁻¹.

Pb++	vlt	mixed	25°C	90%	C			K1=6.7	1996SSc (100694)	2138
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Method: polarography. Medium: 90% w/w CH3CN/H2O.

Pb++	vlt	oth/un	RT	0.10M	C			K1=5.39	1985LAa (100695)	2139
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Method: dc and ac polarography. Medium: 0.10 M HNO3.

Pb++	cal	oth/un	25°C	0.10M	U	H			1976ITb (100696)	2140
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K1=5.29 (cis-syn-cis isomer)
K1=4.43 (cis-anti-cis isomer)
DH(Syn)=-22.9 and DH(Anti)=-17.6 kJ mol⁻¹.

C20H39N5O2 HL CAS 333309-52-7 (8662)
16-Aminodocosahydro-16-methyl-dibenzo[b,i][1,4,8,11]tetraazacyclotetradecine-7-carb
oxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	gl	KCl	25°C	0.5M	U			K1=9.35 K(PbL+H)=7.2	2002WHa (100771)	2141
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Data for the trans isomer. For the cis-isomer K1=11.85, K(PbL+H)=6.55

C20H42N2O6 L (6402)
7,16-Bis(1,1-dimethyl-2-hydroxyethyl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++      gl  NaNO3  25°C 0.10M C      K1=6.95      1991DHa (100862)2142
*****
C20H42N2O8      L      CAS 106113-01-3 (5879)
7,16-Bis(((2-hydroxyethyl)oxy)ethyl)-1,4,10,13-Tetraoxa-7,16-Diazacyclooctadecane;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      gl  NaNO3  25°C 0.10M C      K1=7.21      1989HBa (100867)2143
*****
C20H42N4O4      L      CAS 39678-14-3 (1543)
4,7-Dimethyl-1,4,7,10-tetraaza-13,16,21,24-tetraoxa-bicyclohexacosane;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      gl  R4N.X  25°C 0.10M U      K1=15.3      1978LMa (100891)2144
                        K(Pb+HL)=8.0
*****
C20H44N4O3      L      CAS 120981-97-7 (8970)
4,5,11,17-Tetraethyl-1,8,14-trioxa-4,5,11,17-tetraazacyclononadecane;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      cal non-aq 25°C 100% C      K1=<0.5      1990DJb (100917)2145
Medium: DMSO.
*****
C20H44N4O4      L      CAS 102202-74-4 (6041)
1,4,7,10-Tetra-(2-hydroxypropyl)-1,4,7,10-tetraazacyclododecane;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      gl  NaNO3  25°C 0.10M U      K1=15.07      1988HSb (100930)2146
*****
C20H44N4O4      L      CAS 252191-56-3 (7609)
1,4,7,10-Tetrakis(3-hydroxypropyl)-1,4,7,10-tetraazacyclododecane;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      gl  R4N.X  25°C 0.10M C      K1=10.3      1999DWa (100953)2147
                        K(Pb+HL)=4.3
Medium: 0.1 M NEt4ClO4
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C20H44N4O6      L      CAS 118018-01-2 (5878)
4,7,13,16-Tetrakis(2-hydroxyethyl)-1,10-dioxa-4,7,13,16-tetraazacyclooctadecane;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Pb++      gl  NaNO3  25°C 0.10M C      K1=10.72      1989HBa (100960)2148
*****
C20H46N6O4      L      (355)

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1,4,7,16,19,22-Hexaaza-10,13,25,28-tetraoxacyclotriacontane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaCl	25°C	0.15M	C		K1=9.18 B(PbHL)=17.98 B(PbH2L)=25.74 B(PbH-1L)=-0.39 B(Pb2L)=16.88	1996BBh (100984)	2149

K(Pb2L+OH)=3.9 , K(Pb2LOH+OH)=3.5

C20H50N10 L CAS 862-28-2 (5839)

1,4,7,10,13,16,19,22,25,28-Decaazacyclotriacontane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaCl04	25°C	0.15M	C		K1=10.24 B(PbHL)=19.83 B(PbH2L)=28.74 B(PbH3L)=36.29 K(Pb+HL)=9.98	1993ABc (101003)	2150

K(Pb+H2L)=9.45, K(Pb+H3L)=8.05, K(PbL+H)=9.6, K(PbHL+H)=8.9, K(PbH2L+H)=7.5
B(Pb2L)=20.70, B(Pb2HL)=27.35, B(Pb2H-1L)=10.79, B(Pb2H-2L)=-0.28, & others.

C21H21N208Cl H2L Demeclocycline CAS 64-73-3 (5759)

7-Chloro-6-demethyltetracycline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	NaCl04	30°C	0.10M	C		K1=3.51 B2= 5.87	1980SGi (101185)	2151

Method: polarography.

C21H24N4 L (931)

Tris((6-methyl-2-pyridyl)methyl)-amine; (CH3.C5H3N.CH2)3N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	20°C	0.10M	C	H	K1=6.80	1977AHc (101248)	2152

Calorimetry: DH1=-21.8 kJ mol⁻¹, DS1=55.6

C21H28N203 L OdienNtnH4 CAS 85735-85-9 (5944)

1,15-Diaza-3,4:12,13-dibenzo-5,8,11-trioxacyclooctadecan-3,12-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	alc/w	25°C	95%	C		K1=6.1	1998DLA (101326)	2153

Medium: 95% MeOH/H2O, 0.10 M Et4NCl04.

C21H29N302 L OenNentnH4 CAS 77016-65-0 (5941)

1,12,16-Triaza-3,4:9,10-dibenzo-5,8-dioxacyclooctadecan-3,9-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	alc/w	25°C	95%	C			K1=7.9	1998DLa (101351)	2154
Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.										
Pb++	EMF	alc/w	25°C	95%	U			K1=7.9	1995ABa (101352)	2155
Medium: 95% MeOH/H2O. Also data for triaza-dioxa ligands with smaller and larger ring sizes.										

C21H31N5O8		H4L						(8194)		
3,6,9,12,18-Pentaazabicyclo[12.3.1]heptadeca-1(18),14,16-triene-3,6,9,12-tetraethanoic acid;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	EMF	KCl	20°C	0.10M	C			K1=9.7	1981SFa (101416)	2156
Method: Pt/H2 electrode.										

C22H18N4O14As2S2		H8L			Arsenazo III			CAS 1668-00-4	(1148)	
2,7-Bis(2'-arsonophenylazo)chromotropic acid;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	sp	oth/un	RT	0.10M	U				1980MKc (101641)	2157
								K(PbOH+H6L=Pb(OH)H4L+2H)=5.94		
								K(PbOH+H5L=Pb(OH)H4L+H)=7.23		
								K(Pb+H5L=PbH3L+2H)=0.74		
								K(Pb+H4L=PbH3L+H)=3.83		
Medium: phthalate buffers.										

C22H20N2O4		L						CAS 207461-96-9	(8955)	
(5Z)-12,13,20,21-Tetrahydrotribenzo[b,f,l][1,8,11,14,4,5]tetraoxadiazacyclohexadecine;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	sp	alc/w	RT	100%	C			K1=2.65	2000GDa (101698)	2158
Medium: MeOH.										

C22H23N2O8Cl		H2L			Aureomycin			CAS 56235-18-8	(3515)	
Chlorotetracycline;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	vlt	NaClO4	30°C	0.10M	C			K1=3.62 B2= 6.31	1980SGi (101763)	2159
Method: polarography.										

C22H24N2O8		H2L			Tetracycline			CAS 60-54-8	(2201)	
Tetracycline;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	0.10M	C		B(PbHL)=4.76 B(PbH2L)=6.09	1996SJa (101824)	2160
Pb++	gl	NaNO3	25°C	0.10M	C		K1=8.3	1992GAa (101825)	2161
Pb++	vlt	NaClO4	30°C	0.10M	C		K1=3.81 B2= 6.59	1980SGi (101826)	2162
Method: polarography.									

C22H24N2O8		H4L					CAS 91044-24-5 (1920)		
meso-1,2-Diphenyl-1,2-diaminoethane-N,N,N',N'-tetraethanoic acid;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	20°C	0.10M	U		K1=12.57	1989SLa (101841)	2163

C22H24N2O9		H2L					Oxotetracycline CAS 79-57-2 (2202)		
Oxytetracycline, 5-Hydroxy-tetracycline;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaNO3	25°C	0.10M	C		K1=9.82	1992GAa (101886)	2164
Pb++	vlt	NaClO4	25°C	0.10M	C		K1=10.30	1992GAb (101887)	2165
Method: polaography.									

C22H26N4O10		H4L					BAPTA (7230)		
1,2-Bis(o-aminophenoxy)ethane-N,N,N',N'-tetraethanoic acid;									
((HOOCCH2)2NCH(OC6H4NH2)2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=11.3	1993YTa (101983)	2166

C22H28O7		L					Dibenzo-21-Cr-7 CAS 14098-41-0 (2876)		
2,3:11,12-Dibenzo-1,4,7,10,13,16,19-heptaoxacycloheicosane-2,11-diene;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	cal	non-aq	25°C	100%	C	H	K1=1.97	1986ICa (102056)	2167
Medium: MeOH. DH(K1)=-15.1 kJ mol-1, DS(K1)=-13 J K-1 mol-1.									

C22H30N2O3		L					(7108)		
3,4:11,12-Dibenzo-1,14-diaza-5,10,17-trioxacyclononadecan-3,11-diene;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

Pb++ EMF alc/w 25°C 95% U K1=6.2 1995ABa (102100)2168
Medium: 95% MeOH/H2O.

C22H30N2O4 L CAS 173547-24-5 (7560)
1,15-Diaza-3,4:12,13-dibenzo-5,8,11,18-tetraoxacycloeicosan-3,12-diene;

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

Pb++ gl alc/w 25°C 95% C K1=5.9 1998DLA (102109)2169
Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.

C22H31N3O2 L CAS 218931-85-2 (7841)
1,12,15-Triaza-3,4:9,10-dibenzo-5,8-dioxa-2,11-dimethylcycloheptadecan-3,9-diene;

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

Pb++ gl alc/w 25°C 95% U K1=7.8 1998ABf (102158)2170
Medium: 95% MeOH/H2O, 0.1 M Et4NClO4.

C22H31N3O3 L CAS 12859-24-4 (7557)
1,15,18-Triaza-3,4:12,13-dibenzo-5,8,11-trioxacycloeicosan-3,12-diene;

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

Pb++ gl alc/w 25°C 95% C K1=9.6 1998DLA (102176)2171
Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.

C22H31N7 L (7484)
2,5,8,11,14-Pentaaza[15]-16,29-phenanthrolineophane;

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

Pb++ gl R4N.X 25°C 0.10M C H K1=13.09 1999BBb (102198)2172
K(PbL+H)=6.17
K(PbHL+H)=5.85

Medium: NMe4NO3. DH(K1)=-36.4 kJ mol⁻¹; DH(PbHL)=-28.8,
DH(PbH2L)=-36.7.

C22H34N6 [22]-Py2N4 (5952)
Di-(2,6-pyridyl)-1,4,9,12,15,20-hexaazacyclodocosane;

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

Pb++ gl NaClO4 25°C 0.01M U K1=6.61 1985NSc (102234)2173
B(PbH-1L)=-1.46

C22H35N5 L CAS 185558-39-8 (7653)
1,15-Diphenyl-2,5,8,11,14-pentaazapentadecane;

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

Tetraethylenepentamineheptaethanoic acid;

Pb++ g1 KN03 25°C 0.10M C K1=18.1 1999LLa (102339)2175

$$K(\text{PbL}+\text{Pb})=13.4; \quad K(\text{Pb}_2\text{L}+\text{H})=4.0; \quad K(\text{Pb}_2\text{HL}+\text{H})=2.3$$

7,16-Bis(tetrahydrofurfuryl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;

Pb++ gl NaNO3 25°C 0.10M C K1=8.50 1991DHa (102403)2176

N,N',N'',N'''-Tetrakis(3-hydroxypropyl)-1,4,8,11-tetraazacyclotetradecane;

Pb++ g1 R4N.X 25°C 0.10M C K1=5.4 1996DTa (102470)2177

Medium: Et4ClO4

4,7,13,16-Tetramethyl-1,4,7,10,13,16-hexaaza-21,24-dioxabicyclohexacosane;

Pb++ g1 R4N.X 25°C 0.10M U K1=15.5 1978LMa (102490)2178

1,4,7,10,13,16,19,22,25,28,31-Undecaazacyclotritriacontane;

Pb++ gl NaCl04 25°C 0.15M C 1993ABc (102510)2179

B(Pb2L)=19.24
B(Pb2HL)=27.02

B(Pb2H2L)=33.78
 B(Pb2H3L)=40.14
 B(Pb2H4L)=45.73, B(Pb2H-1L)=8.43, B(Pb2H-2L)=-2.62, B(Pb3L)=23.76, B(Pb3HL)=30.44, B(Pb3H-1L)=16.05, B(Pb3H-2L)=6.92.

C23H17N4O13AsS2 H7L CAS 3772-44-9 (548)
 2-((2-Arsonophenyl)azo)-7-(2-carboxyphenyl)azo)-chromotropic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	sp	none	25°C	0.0	U			1981MTb (102581)	2180

K(Pb+H4L)=4.99
 H7L= 2-[(2-arsonophenyl)azo]-7-[(2-carboxyphenyl)azo]-1,8-dihydroxy-3,6-naphthylidisedisulphonic acid

C23H23NO5 L CAS 218619-58-0 (7808)
 Dibenzo-pyridino-18-crown-6;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	non-aq	22°C	100%	C I		K1=1.4	2001MRa (102662)	2181

Medium: DMF, 0.025 M Et4NClO4. Method: differential pulse polarography.
 Data for binary mixtures of DMF with MeOH, nitromethane, PrOH, AN.

Pb++	EMF	alc/w	25°C	100%	C T H		K1=5.14	2001SZb (102663)	2182
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Medium: methanol, 0.5 M Bu4NClO4. Method: Ag electrode, using competitive complexation with Ag+. Data for 5-35 C. DH=-27.6 kJ mol-1, DS=6 J K-1 m-1

Pb++	con	mixed	25°C	20%	C TIH		K1=3.10	1999SPc (102664)	2183
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Medium: 20% w/w AN/DMSO. Data for 20-80% w/w AN/DMSO and 25-55 C.

C23H28N2O6 H2L CAS 119673-46-0 (1922)
 Dibenzo[b,k]-1,13-dioxa-5,9-diazacyclopentadecane-N,N'-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.5M	C		K1=9.06	1993YNa (102736)	2184

C23H33N3O3 L CAS 173547-19-8 (7558)
 1,15,19-Triaza-3,4:12,13-dibenzo-5,8,11-trioxacycloheptacosan-3,12-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	alc/w	25°C	95%	C		K1=7.3	1998DLA (102815)	2185

Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.

C23H37N7 L CAS 267428-80-8 (7952)
 11,14,17-Trimethyl-8,11,14,17,20,26,27-heptaazatricyclo[20.3.1.12,6]heptacosan-1,2,4,6,22,24-hexa

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	U	H		K1=11.51 K(PbL+H)=5.87 K(PbHL+H)=5.02	2001ABa (102833)	2186
Medium: 0.10 M NMe4Cl. DH(K1)=-25.5 kJ mol-1, DH(PbL+H)=-34.7, DH(PbHL+H)=-35.9.										

C23H41N3O3		L						CAS 118974-36-0	(8971)	
4,10-Diethyl-16-(phenylmethyl)-1,7,13-trioxa-4,10,16-triazacyclooctadecane;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	cal	non-aq	25°C	100%	C	H		K1=4.33	1990DJb (102837)	2187
Medium: DMSO. DH(K1)=-48.7 kJ mol-1, DS(K1)=80.5 J K-1 mol-1.										

C24H23N07S		H3L						(1980)		
3-(N-Carboxymethyl)aminomethyl-o-cresolsulfonephthalein;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	KN03	25°C	0.10M	U			K1=9.1 B2=12.50 K(PbL+OH)=4.0	1979YMb (102930)	2188
K(PbL+OH) measured by spectrophotometry										

C24H26N4Fe		L						CAS 725696-29-7	(9158)	
1,1'-Bis[[(2-pyridinylmethyl)amino]methyl]-ferrocene;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	KN03	25°C	0.10M	C			K1=5.16 K(PbL+H)=7.82 *K(PbL)=-7.97 *K(PbH-1L)=-9.40	2004CCb (102988)	2189

C24H31N3O8		H3L						CAS 35369-55-2	(6972)	
N,N''-Bis(2-hydroxybenzyl)-2,5,8-triazanonane-N,N',N''-triethanoic acid;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	NaN03	25°C	0.50M	C			K1=17.09 K(PbL+H)=9.72 K(PbHL+H)=8.36 K(PbH2L+H)=5.51 K(PbH3L+H)=2.96	1994HCb (103059)	2190

C24H32O8		L						DiBz-24-Crown-8	CAS 14174-09-5	(580)
2,3:14,15-Dibenzo-1,4,7,10,13,16,19,22-octaoxacyclotetracos-2,14-diene;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo

Pb++ con mixed 25°C 90% C K1=2.97 2003ISa (103161)2191
Medium: 90% v/v DMSO/H2O.

Pb++ vlt mixed 25°C 90% C K1=3.8 1996SSc (103162)2192
Method: polarography. Medium: 90% w/w CH3CN/H2O.

Pb++ vlt alc/w 25°C 100% C K1=2.33 1987CBd (103163)2193
Medium: methanol, 0.10 M Et4NI or Bu4NClO4. Method: polarography.
Additional method conductivity in methanol: K1=2.33.

Pb++ cal non-aq 25°C 100% C H K1=2.34 1986ICa (103164)2194
Medium: MeOH. DH(K1)=-23.0 kJ mol⁻¹, DS(K1)=-32.5 J K⁻¹ mol⁻¹.

Pb++ vlt oth/un RT 0.10M C K1=4 1985LAa (103165)2195
Method: dc polarography. Medium: 0.10 M HNO3.

C24H35N09 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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Pb++ sp mixed 25°C 10% C K1=6.09 2001LWa (103245)2196
Method: fluorimetry. Medium: 10%v/v acetonitrile/H2O.

C24H35N303 L CAS 173547-21-2 (7559)
1,15,19-Triaza-3,4:12,13-dibenzo-5,8,11-trioxacyclodocosan-3,12-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++ gl alc/w 25°C 95% C K1=8.1 1998DLA (103253)2197
Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.

C24H36N404 L Py-2-18-aneN204 CAS 103837-13-4 (8062)
7,16-Bis(2-pyridinylmethyl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++ gl KNO3 25°C 0.10M C K1=11.67 1986DSa (103266)2198

C24H36O21 H6L CAS 71735-94-9 (7414)
1,4,7,10,13,16,19,22,25-Nonaoxacycloheptacosane-2,3,11,12,20,21-hexacarboxylic
acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++ gl R4N.X 25°C 0.10M M K1=7.7 1991FGb (103309)2199
Medium: 0.10 M Et4NNO3.

C24H42N6O12 H6L (6546)
1,4,7,10,13,16-Hexaazacyclooctadecane-N,N',N'',N''',N'''',N'''''-hexaethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	gl	NaNO3	25°C	0.20M	C				1991KKa (103383)	2200
K(Pb+H2L)=17.83										

Pb++	EMF	KCl	20°C	0.10M	C			K1=15.9	1981SFa (103384)	2201
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Method: Pt/H2 electrode.

C24H44O8 L Dicy-24-crown-8 CAS 17455-23-1 (2401)

2,3,14,15-Dicyclohexyl-1,4,7,10,13,16,19,22-octaoxacyclotetracosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	con	mixed	25°C	90%	C			K1=3.14	2003ISa (103434)	2202
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Medium: 90% v/v DMSO/H2O.

Pb++	vlt	R4N.X	25°C	0.10M	U			K1=2.54	1978KKe (103435)	2203
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C24H46N2O6 L (6567)

7,16-Bis(trans-2-hydroxycyclohexyl)-1,4,10,13-tetraoxa-7,16-diazocyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	gl	NaNO3	25°C	0.10M	C			K1=8.59	1991DCa (103455)	2204
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K(PbL+OH)=5.20

C24H48N4O6 L CAS 56698-26-1 (1536)

4,10,16,22,27,32-Hexaoxa-1,7,13,19-tetraazatricyclo-tetratriacontane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	gl	R4N.X	25°C	0.10M	U			K1=10.57	1985NSb (103489)	2205
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B(PbHL)=17.31

B(PbH-1L)=2.19

C24H52N4O6 L CAS 118018-00-1 (5877)

4,7,13,16-Tetrakis(2-hydroxypropyl)-1,10-Dioxa-4,7,13,16-tetraazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	gl	NaNO3	25°C	0.10M	C			K1=10.57	1989HBa (103555)	2206
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C24H60N12 L CAS 24904-24-3 (5837)

1,4,7,10,13,16,19,22,25,28,31,34-Dodecaazacyclohexatriacontane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++ gl NaClO4 25°C 0.15M C 1993ABc (103588)2207

B(Pb2L)=19.97
B(Pb2HL)=28.36
B(Pb2H2L)=35.66
B(Pb2H3L)=41.83

B(Pb2H4L)=48.23, B(Pb2H-1L)=9.48, B(Pb2H-2L)=-1.45, B(Pb3L)=25.77, B(Pb3HL)=32.78, B(Pb3H-1L)=16.71, B(Pb3H-2L)=-3.65.

C25H27N9O8S2 H2L CAS 62893-19-0 (8405)

Cefoperazone;

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

Pb++ gl KNO3 25°C 0.10M C K1=6.7 2000GFb (103659)2208

C25H30N4O2 L CAS 336181-87-4 (8558)

Octahydro-12H-7,11-nitrilo-6H,18H-dibenzo[b,m][1,15,5,8,11]dioxatriazacyclodocosine
;

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

Pb++ gl alc/w 25°C 95% U K1=9.8 2002FGa (103699)2209

Medium:95% MeOH/H2O, 0.10 M Et4NClO4. For the 2,16-t-butyl derivative,
K1=9.7.

C25H31N2O5F3 L CAS 147727-63-7 (3902)

10-(Coumarin 153)-1,4,7-trioxa-10-azacyclododecane;

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

Pb++ sp non-aq 20°C 100% U I K1=6.14 1995BBd (103715)2210

Medium: MeCN. PbL2+PbL. In MeOH: B2(Pb2L)=8

C25H32N2O7 H2L (7374)

1,15-Diaza-3,4:12,13-dibenzo-5,8,11-trioxacyclooctadecane-N,N'-diethanoic acid;

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

Pb++ gl KNO3 25°C 0.5M C K1=8.39 1993YNa (103733)2211

C25H32N6 L CAS 132177-84-5 (536)

3,11-Bis(2-pyridylmethyl)-3,7,11,17-tetraazabicyclo[11.3.1]heptadeca-1(17),13,15-triene;

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

Pb++ gl KNO3 25°C 0.10M C K1=10.69 1999CDa (103746)2212

K(PbL+H)=3.95

K(Pb(OH)L+H)=10.59

C25H48N6O8 H3L Desferrioxamine CAS 70-51-9 (2488)
Desferrioxamine B; NH2.((CH2)5.NOH.CO.C2H4.CO.NH)2.(CH2)5.NOH.CO.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	C			K(Pb+H3L)=5.92 K(Pb+H2L)=9.25 K(Pb+HL)=10.00 K(2Pb+HL)=16.29	1996HV	a (103819)2213

C26H25NO9S H4L Semi-Xylenol O (426)
3-(N,N-Di(carboxymethyl)aminomethyl)-2-cresolsulfonephthalein;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	U			K1=13.4 K(PbL+H)=5.6	1981MU	a (103947)2214

C26H27N3O10 H4L (7231)
2-((2-Amino-5-methylphenoxy)-methyl)-6-methoxy-8-aminoquinoline-N,N,N',N'-tetraetha
noic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C			K1=12.24	1993YT	a (103969)2215

C26H28N2O5 L (2155)
1,13-Di-(8-quinolyl)-1,4,7,10,13-tetraoxatridecane; C9H6N.O.(CH2.CH2.O)4.C9H6N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	cal	alc/w	25°C	100%	U	H		K1=5.12	1985BU	a (103981)2216

Medium: MeOH. DH(K1)=-27.9 kJ mol⁻¹

C26H28N6 L CAS 16858-02-9 (933)
N,N,N',N'-Tetrakis-(2-pyridylmethyl)-diaminoethane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	vlt	NaNO3	25°C	0.10M	U			K1=14.36	1999CU	a (104009)2217
Pb++	vlt	NaNO3	25°C	0.10M	C			K1=14.30	1995CC	b (104010)2218

Method: differential pulse polarography

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++	sp	KNO3	20°C	0.10M	C	H		K1=13.98	1977AH	c (104011)2219

Calorimetry: DH1=-80.3 kJ mol⁻¹, DS1=7.9

C26H28O4 H2L B(CH2AcAcCH2)2B (2253)
3,5,16,18-Tetraoxo[7.7]metacyclophane ;Cyclo-(-(C6H4.(CH2)2.CO.CH2.CO.(CH2)2-)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	diox/w	24°C	50%	U		K1=9.0	1979ACa (104021)	2220

C26H30N2O2		L				CAS 268727-12-4		(8553)	
6,7,8,9,10,11,17,18-Octahydro-6-(phenylmethyl)-5H-dibenzo[e,n][1,4,8,12]dioxadiazacyclopentadecin									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	alc/w	25°C	95%	C		K1=5.0	2002KAb (104031)	2221
Medium: 95% MeHO/H2O, 0.10 M Et4NClO4.									

C26H33N3O8		H3L				CAS 119673-43-7		(1925)	
Dibenz[b,m]-1,15-dioxa-5,8,11-triazacycloheptadecane-N,N',N''-triethanoic acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.5M	C		K1=15.31 K(MLH)=19.30	1993YNa (104055)	2222

C26H34N4O6		H2L		EDTAMBA		CAS 144150-09-4		(7802)	
Ethylenedinitrilo-N,N'-diethanoic-N,N'-bis(1-phenylethylacetamido) acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	0.10M	M	H	K1=9.26	1998DTa (104085)	2223
Medium: 0.10 M KClO4. By calorimetry, DH(K1)=-47.12 kJ mol-1, DS(K1)=19.3 J K-1 mol-1.									

C26H34N6O8		H4L				CAS 132709-65-0		(8941)	
3,6,14,17,23,24-Hexaazatricyclotetracos-1,8,10,12,19,21-hexaene-3,6,14,17-tetraacetate acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KCl	25°C	0.10M	M		K1=17.7 K(PbL+H)=5.0 K(PbHL+H)=4.1	1996MBb (104098)	2224

C26H38N2O4		L				CAS 80757-23-9		(2450)	
N,N'-Bis(benzyl)-1,10-diaza-4,7,13,16-tetraoxacyclooctadecane;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	con	mixed	25°C	20%	C	TIH	K1=4.33	1999SPc (104190)	2225
Medium: 20% w/w AN/DMSO. Data for 20-80% w/w AN/DMSO and 25-55 C.									
DH(K1)=-28 kJ mol-1, DS(K1)=-13 J K-1 mol-1.									

C26H40N4O4 L CAS 223498-85-9 (8585)
 2,2'-[1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diylbis(methylene)]bisbenzeneamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	sp	non-aq	20°C	100%	C		K1=7.7	2002EAa (104224)	2226

Medium: CH3CN, 0.001 M Bu4NC1O4

C26H46N6S2 L CAS 286388-53-2 (7729)
 1,4,7,13-Tetramethyl-10,16-bis(thienylmethyl)-1,4,7,10,13,16-hexaazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaClO4	25°C	0.10M	C		K1=10.18 K(PbL+H)=5.13 K(PbL+OH)=7.41	2000BBc (104291)	2227

C26H56N4 L CAS 71366-36-4 (8100)
 1-Hexadecyl-1,4,8,11-tetraazacyclotetradecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	M		K1=9.1	1996PSa (104366)	2228

C26H56N8 L TCOA-14 (7430)
 1,5,9,12,16,20,24,27-Octaazatricyclo[18.10.2.2(5,16)]tetratriacontane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	R4N.X	25°C	0.10M	C		K1=8.75 K(Pb+HL)=4.9 *K(Pb2L)=-8.3 *K(Pb2H-1L)=-8.9 K(Pb+H3L)=3.3	1998DDa (104372)	2229

Medium: 0.1 M NEt4ClO4.

C27H33N3O2 L CAS 540522-39-2 (9154)
 1,12,15-Triaza-3,4:9,10-dibenzo-5,8-dioxacycloheptadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	alc/w	25°C	95%	U		K1=6.2	2004FRa (104533)	2230

Medium: 95% methanol/water, 0.1 M Et4NC1O4.

C27H35N2O6F3 L (4198)
 10-(Coumarin 153)-1,4,7,10-tetraoxa-13-azacyclopentadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++ sp non-aq 20°C 100% U I K1=7.1 1995BBd (104554)2231
Medium: MeCN. In MeOH: B(Pb2L)=10

C27H41N3O4 L CAS 262610-61-7 (7222)
3,4:5,6-Dibenzo-14-methyl-4',4''-bis(dimethylamino)1,8,11,17-tetraoxa-14-azacyclononadecan-3,5-diene

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

Pb++ gl mixed 25°C 70% C K1=5.07 2000CMA (104593)2232
B(PbHL)=12.02
B(PbH-1L)=-1.98
B(PbH-2L)=-10.53

Medium: 70% v/v dioxane/H2O, 0.10 M KNO3.

C27H44O L Vitamin D3 CAS 67-97-0 (6103)
7-Dehydrocholesterol, Cholecalciferol

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

Pb++ gl alc/w 25°C 70% C K1=9.1 B2=15.40 2003MYc (104615)2233
Medium: 70% v/v EtOH/H2O, 0.10 M KNO3.

C28H35N3O6 L CAS 114880-42-1 (7377)
3-(p-13-Aza-1,4,7,10-tetroxacyclopentadecan-13-ylstyryl)-7-dimethylamino-1,4-benzoxazin-2-one;

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

Pb++ sp non-aq RT 100% U K1=6.02 1998ABc (104763)2234
Medium: acetonitrile. Method: fluorescence spectroscopy.

C28H40O10 L DiBz-30-crown10 CAS 104946-67-0 (1776)
2,3:17,18-Dibenzo-1,4,7,10,13,16,19,22,25,28-decaoxacyclotriacont-2,17-diene;

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

Pb++ ISE non-aq 25°C 100% U K1=11.45 1982MDa (104900)2235
Medium: propylene carbonate

C28H46N6O2 L CAS 402562-58-7 (8007)
3,6,10,18,21,25-Hexaaza-31,32-dihydroxy-14,29-dimethyltricyclo[25,3,1,1]dotriacont-1,12,14,16,27

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

Pb++ gl KCl 25°C 0.10M C K1=14.07 2002KMb (104962)2236
K(PbL+H)=10.04
K(PbHL+H)=9.38

$K(\text{PbH}_2\text{L}+\text{H})=7.92$
 $K(\text{PbH}_3\text{L}+\text{H})=6.25$
 $K(\text{PbL}+\text{Pb})=10.16$, $K(\text{Pb}_2\text{L}+\text{H})=6.49$, $K(\text{Pb}_2\text{HL}+\text{H})=5.20$, $*K(\text{Pb}_2\text{L})=-8.74$,
 $*K(\text{Pb}_2(\text{OH})\text{L})=-10.48$, $K(\text{Pb}+\text{H}_2\text{L})=10.94$, $K(\text{Pb}+\text{HL})=12.41$.

 C28H48N8 HL (7463)
 1,4,7,13-Tetramethyl-10,16-bis(2-pyridylmethyl)-1,4,7,10,13,16-hexaazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaCl04	25°C	0.10M	C		$K_1=11.01$ $K(\text{PbL}+\text{H})=5.29$ $K(\text{PbHL}+2\text{H})=10.74$ $K(\text{PbL}+\text{OH})=3.29$	1999BBa (104975)	2237

 C28H52N6O5 HL CAS 811431-80-8 (9159)
 2,6-Bis(1,4-dioxa-7,10,13-triazacyclopentadec-10-ylmethyl)-phenol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	NaCl	25°C	0.15M	C		$K_1=13.79$ $K(\text{Pb}+\text{HL})=11.49$ $K(\text{PbHL}+\text{H})=8.43$ $K(\text{PbL}+\text{Pb})=9.89$ $K(\text{Pb}_2\text{L}+\text{OH})=3.18$	2004ADa (105006)	2238

$K(\text{PbL}+\text{H})=9.32$.

Pb++	gl	alc/w	25°C	95%	U		$K_1=7.5$	2004PFa (105007)	2239
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Medium: 95 % methanol/H₂O, 0.1 M Et₄NClO₄.

 C29H37N3O4S2 L CAS 173547-29-0 (7564)
 1,8,15-Triaza-3,4:12,13-dibenzo-8-tosyl-5,11-dioxa-18-thiacycloeicosan-3,12-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	alc/w	25°C	95%	C		$K_1=5.1$	1998DLA (105115)	2240

Medium: 95% MeOH/H₂O, 0.10 M Et₄NClO₄.

 C29H38N4O4S L CAS 168279-83-2 (7561)
 1,8,15,18-Tetraaza-3,4:12,13-dibenzo-8-tosyl-5,11-dioxacycloeicosan-3,12-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	alc/w	25°C	95%	C		$K_1=9.3$ $B(\text{PbHL})=15.0$	1998DLA (105132)	2241

Medium: 95% MeOH/H₂O, 0.10 M Et₄NClO₄.

 C29H45N3O5 L CAS 262610-63-9 (7249)
 3,4:5,6-Dibenzo-14-methyl-4',4''-bis(dimethylamino)-1,8,11,17,20-pentaoxa14azacyclod

ocosan3,5diene

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	mixed	25°C	70%	C		K1=4.98 B(PbHL)=11.14 B(HgH-1L)=-2.30 B(HgH-2L)=-11.48	2000CMa (105155)	2242

Medium: 70% v/v dioxane/H₂O, 0.10 M KNO₃.

C30H40N4O4S L CAS 173547-27-8 (7562)
1,8,15,19-Tetraaza-3,4:12,13-dibenzo-8-tosyl-5,11-dioxacycloheneicosan-3,12-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	alc/w	25°C	95%	C		K1=7.6	1998DLa (105290)	2243

Medium: 95% MeOH/H₂O, 0.10 M Et₄NCIO₄.

C30H42O8 H2L CAS 220150-46-9 (394)
1,2-Bis[2-(2'-carboxyoctanyloxy)phenoxy]ethane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	dis	non-aq	24°C	100%	C		K=2.28	1999HSa (105299)	2244

By solvent extraction into CHCl₃ at pH 3.0-7.0. Data for related
2'-carboxyaalkyloxy derivatives. K: Pb(aq)+2HL(org)=PbL₂(org)+2H(aq).

C30H50N6O2 L CAS 380446-61-7 (8002)
3,7,11,19,23,27-Hexaaza-33,34-dihydroxy-15,31-dimethyltricyclotetratetriaconta-1,13,15,17,29,30-hex

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KCl	25°C	0.10M	C	M	K1=10.59 K(PbL+H)=10.95 K(PbHL+H)=9.60 K(PbH ₂ L+H)=6.44 K(PbL+Pb)=8.16	2002WMa (105372)	2245

K(Pb₂L+H)=5.12, *K(Pb₂L)=-11.90. B(CoPbH₂L)=33.85, B(CoPbHL)=28.37,
B(CoPbL)=23.08, B(CoPbH-1L)=13.52, B(CoPbH-2L)=2.97.

Pb++	gl	KCl	25°C	0.10M	C	M	K1=10.59 K(PbH ₂ L+H)=6.44 K(PbHL+H)=9.90 K(PbL+H)=10.95 *K(PbL)=-11.5	2001WKa (105373)	2246
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K(Pb₂L+H)=5.12, K(PbL+Pb)=8.16, *K(Pb₂L)=-10.57. Also data for
dinuclear complexes, M₂HnL, and heterodinuclear complexes, MM'HnL.

C30H64N4 L CAS 188770-59-4 (8101)
1-(3,7,11,15-Tetramethyl)hexadecyl-1,4,8,11-tetraazacyclotetradecane;

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

Pb++ gl KNO3 25°C 0.10M M K1=10 1996PSa (105392)2247

C31H32N2O13S H6L Xylenol orange CAS 63721-85-5 (432)
5,5'-Bis-N,N-bis(carboxymethyl)aminomethyl-4'-hydroxy-3,3'-dimethylfuchsone-2"-sulfonic acid;

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

Pb++ gl NaClO4 30°C 0.10M C 1995STa (105485)2248

K(Pb+H2L)=6.44

K(Pb+HL)=10.42

Pb++ ISE NaClO4 25°C 0.10M U K1=13.68 1980MOa (105486)2249

K(Pb+HL)=11.63

K(Pb+H2L)=5.39

K(PbL+H)=10.08

K(PbHL+H)=4.32

K(Pb+PbL)=12.45, K(Pb+PbHL)=6.47, K(Pb2L+H)=4.1

Pb++ gl KNO3 25°C 0.10M U K1=15.24 1977SYa (105487)2250

B(PbHL)=25.32

B(PbH2L)=30.01

B(Pb2L)=26.70

C31H37N7 L CAS 259259-40-0 (537)
3,7,11-Tris(2-pyridylmethyl)-3,7,11,17-tetraazabicyclo[11.3.1]heptadeca-1(17),13,15-triene;

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

Pb++ gl KNO3 25°C 0.10M C K1=9.62 1999CDa (105539)2251

K(PbL+H)=3.55

C32H32N2O12 H6L Cresolphthalexo CAS 2411-89-4 (1997)
o-Cresolphthalein-3,3'-bis(methyliminodiethanoic acid)

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

Pb++ gl NaClO4 30°C 0.1M U TIH K1=11.95 1996STa (105612)2252

K(Pb+HL)=10.85

K(Pb+H2L)=8.10

*K1=-6.13.

C32H34N2O2S2 L (7281)
3,4:9,10:14,15:20,21-Tetrabenzo-1,12-diaza-5,8-dioxa-16,19-dithiacyclodocosan-3,9,1

4,20-tetraene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	alc/w	25°C	95%	C		K1=<4.5	1996AKb (105622)	2253
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Medium: 95% MeOH/H2O, 0.10 M Et4NClO4

C32H34N2O4 L (7282)
3,4:9,10:14,15:20,21-Tetrabenzo-1,12-diaza-5,8,16,19-tetraoxacyclododecan-3,9,14,20-tetraene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	alc/w	25°C	95%	C		K1=5.9	1996AKb (105625)	2254
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Medium: 95% MeOH/H2O, 0.10 M Et4NClO4

C32H34N2S4 L (7283)
3,4:9,10:14,15:20,21-Tetrabenzo-1,12-diaza-5,8,16,19-tetrathiacyclododecan-3,9,14,20-tetraene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	alc/w	25°C	95%	C		K1=<4.5	1996AKb (105629)	2255
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Medium: 95% MeOH/H2O, 0.10 M Et4NClO4

C32H42N6O2S H2L CAS 226211-88-7 (7999)
2,2'-(7,10-DiMe-1-thia-4,7,10,13-tetraazacyclopentadeca-4,13-diyl)bis(methylene)bis-quinolinol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	R4N.X	25°C	0.10M	C		K1=12.63 B(PbHL)=15.85 B(PbH-1L)=6.91	2001LIa (105741)	2256
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Medium: 0.10 M Me4NCl.

C32H42N6O3 H2L CAS 226211-86-5 (7997)
2,2'-(7,10-DiMe-1-oxa-4,7,10,13-tetraazacyclopentadecan-4,13-diyl)bis(methylene)-bis-quinolinol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	gl	R4N.X	25°C	0.10M	C		K1=13.65 B(PbHL)=16.93 B(PbH-1L)=8.22	2001LIa (105748)	2257
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Medium: 0.10 M Me4NCl.

C32H64N4O10 L CAS 42133-16-4 (8579)
4,10,13,19,25,28,33,36,41,44-Decaoxa-1,7,16,22-tetraazatricyclo[20.8.8.87,16]hexate tracontane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	alc/w	25°C	90%	M		K1=ca. 12	1977LSc (105852)	2258
Medium: 90% (w/w) MeOH/H2O, 0.1 M Et4NBr.									

C33H36N2O2		L					CAS 225918-78-5	(8554)	
6,7,8,9,10,11,17,18-Octahydro-6,10-bis(phenylmethyl)-5H-dibenzo[1,4,8,12]dioxadiaza cyclopentadeci									
Pb++	gl	alc/w	25°C	95%	C		K1=4.2	2002KAb (105886)	2259
Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.									

C33H38N2O6P2		H2L					CAS 361523-72-0	(7842)	
1,12-Diaza-3,4:9,10-dibenzo-5,8-dioxacyclopentadecan-1,2-bis(methylenephosphoric acid);									
Pb++	gl	alc/w	25°C	95%	C		K1=13.4	2001FLa (105906)	2260
Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.									

C33H44N6O2S		H2L					CAS 226211-89-8	(8000)	
2,2'-(7,11-DiMe-1-thia-4,7,11,14-tetraazacyclohexadecan-4,14-diyl)bis(methylene)bis-quinolinol;									
Pb++	gl	R4N.X	25°C	0.10M	C		K1=12.43 B(PbHL)=16.52 B(PbH-1L)=6.77	2001LIa (105945)	2261
Medium: 0.10 M Me4NCl.									

C33H44N6O3		H2L					CAS 226211-87-6	(7998)	
2,2'-(7,11-DiMe-1-oxa-4,7,11,14-tetraazacyclohexadecan-4,14-diyl)bis(methylene)bis-8-quinolinol;									
Pb++	gl	R4N.X	25°C	0.10M	C		K1=12.75 B(PbHL)=17.27	2001LIa (105952)	2262
Medium: 0.10 M Me4NCl.									

C33H45N5O3		L					CAS 176483-79-7	(7769)	
4,24,29-Trioxa-1,11,14,17,36-pentaazapentacyclo[hentetraconta-5,7,9,19,21,23,30,32,34-nonaene;									
Pb++	gl	R4N.X	25°C	0.10M	C		K1=12.75 B(PbHL)=17.27	2001LIa (105952)	2262
Medium: 0.10 M Me4NCl.									

C33H45N5O3		L					CAS 176483-79-7	(7769)	
4,24,29-Trioxa-1,11,14,17,36-pentaazapentacyclo[hentetraconta-5,7,9,19,21,23,30,32,34-nonaene;									

Medium: 0.10 M Me₄NNO₃.

C34H36N6O2Cl2

CAS 656821-44-2 (9234)

7-Methyl-3,11-bis((5-chloro-8-hydroxy-7-quinolinyl)methyl)tetraazabicycloheptadeca-1,13,15-triene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++ gl alc/w 20°C 83% C K1=16.23 2003CCb (106014)2264

$$B(\text{PbHL}) = 25.75$$
$$B(PbH_2L) = 33.49$$
$$B(PbH3L) = 38.62$$
$$B(\text{PbH}_4\text{L}) = 42.77$$

Medium: 83% (v/v) MeOH/H₂O, 0.10 M Bu₄NNO₃. B(Pb2L)=27.38,

$$B(\text{Pb2HL})=33.22, \quad B(\text{Pb2H2L})=38.00.$$

C34H38N2O3

L

CAS 268727-13-5 (8555)

Decahydro-17,20-bis(phenylmethyl)dibenzo[h,p][1,4,7,11,14]trioxadiazacycloheptadecine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++ gl alc/w 25°C 95% C K1=4.4 2002KAb (106025)2265

Medium: 95% MeOH/H₂O, 0.10 M Et₄NClO₄.

C34H54O8

H2L

Lasalocid

CAS 25999-20-6 (2335)

Lasalocid acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++	gl	alc/w	25°C	100%	M	H	K1=7.7	B2=11.0	1994MPc	(106152)2266
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Medium: MeOH. $\Delta H(K1)=26 \text{ kJ mol}^{-1}$, $\Delta S=23 \text{ J K}^{-1} \text{ mol}^{-1}$; $\Delta H(B2)=34$, $\Delta S=32$

C35H40N2O3

L

CAS 268727-14-6 (8556)

Decahydro-17,21-bis(phenylmethyl)-16H-dibenzo[h,q][1,4,7,11,15]trioxadiazacyclooctadecine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++ gl alc/w 25°C 95% C K1=ca.4.4 2002KAb (106195)2267

Medium: 95% MeOH/H₂O, 0.10 M Et₄NClO₄.

C36H36N24O12

L

Cucurbituril

CAS 283175-97-3 (6744)

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Cucurbit[6]uril;
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Pb++ sol none 25°C 0.0 C K1=2.19 2001BCe (106271)2268
Method: total organic carbon analysis of dissolved species.
For the homologous cucurbit[5]uril, K1=1.54.

Pb++ cal mixed 25°C 50% C H K1=3.51 2000ZKb (106272)2269
Medium: 50% v/v formic acid/H2O. DH(K1)=-13.6 kJ mol⁻¹, DS(K1)=22 J K⁻¹ mol⁻¹.

C36H44N4O2 L CAS 446875-57-6 (8559)
3,17-Bis(1,1-dimethylethyl)-tetrahydro-dinitrilodibenzodioxadiazacyclotetracosine;

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

Pb++ gl alc/w 25°C 95% U K1=ca.9.3 2002FGa (106328)2270
Medium:95% MeOH/H2O, 0.10 M Et4NC104.

C36H60N8O8 L CAS 121925-84-6 (7152)
Cyclo(Gly-eLL-Gly)2 (eLL=N,N'-ethylene-bridged (S)-leucyl-(S)-leucine

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

Pb++ sp non-aq 25°C 100% U K1=3.89 1994MKa (106457)2271
Medium: MeCN

C36H62O11 HL Monensin CAS 17090-79-8 (737)
Monensin, 1,6-dioxaspiro[4,5]decane derivative;

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

Pb++ gl alc/w 25°C 100% M H K1=7.7 B2=12.1 1994MPc (106531)2272
Medium: MeOH. DH(K1)=28.3 kJ mol⁻¹, DS=242 J K⁻¹ mol⁻¹; DH(B2)=36.2, DS=353

C37H44N2O13S H6L MeThymol Blue (428)
3,3'-Bis(N,N-di(carboxymethyl)aminomethyl)thymolsulfonephthalein;

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

Pb++ sp NaNO3 25°C 0.10M C I K1=5.09 1997GAc (106615)2273
K(PbL+Pb)=4.60
Medium pH 4.45 (acetate buffer). Also data for 15-45% w/w MeOH/H2O, 0.10 M NaNO3.

C38H38N4O4 H2L (7457)
1,1'-Bis(4-tert-butylbenzyl)-2,2'-bis(benzimidazole)-4,4'-dicarboxylic acid;

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

Pb++ nmr mixed 20°C 25% U K1=3.53 1996BPb (106655)2274
Medium: 25% CD3OD/CDC13.

C39H42N4O2 HL CAS 688348-35-8 (9160)
Octahydro-19,22-bis(phenylmethyl)-12H-7,11-nitrilo-6H,18H-dibenzo[1,15,5,8,11]dioxatriazacyclo;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	alc/w	25°C	95%	U		K1=5.5	2004PFa (106711)	2275

Medium: 95 % methanol/H2O, 0.1 M Et4NClO4.

C40H44N4O2S4 CAS 244271-42-9 (8951)
4,7,13,16-Tetrakis(phenylmethyl)-1,10-dioxa-4,7,13,16-tetraazacyclooctadecine-3,8,12,17-tetrathi

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	sp	non-aq	25°C	100%	C		K1=7.0 B2=11.80 B(Pb2L)=12.2	1999RPa (106760)	2276

Medium: acetonitrile.

C40H48N4O6 L CAS 357386-71-1 (8586)
2,2'-[Tetraoxa-7,16-diazacyclooctadecane-7,16-diylbis(methylene-2,1-phenylenenitrilomethylidene)]

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	sp	non-aq	20°C	100%	C		K1=7.2	2002EAa (106789)	2277

Medium: CH3CN, 0.001 M Bu4NClO4

C40H50N2O10 L CAS 143902-45-8 (8935)
Decamethylcucurbit[5]uril;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	cal	mixed	25°C	50%	C	H	K1=>9	2000ZKb (106810)	2278

Medium: 50% v/v formic acid/H2O. Method: competitive calorimetric titration with KNO3. DH(K1)=-23.5 kJ mol-1, DS(K1)=>93.6 J K-1 mol-1.

Pb++	gl	R4N.X	25°C	0.05M	C			2000ZKb (106811)	2279
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B(PbH-1L)=-9.25
B(Pb2H-2L)=-17.5

Medium: 0.05 M Et4NCl.

C41H45N3O2 L CAS 129508-47-0 (8557)
Decahydro-6,9,12-tris(phenylmethyl)-5H-dibenzo[e,p][1,4,8,11,14]dioxatriazacycloheptadecine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	alc/w	25°C	95%	C		K1=4.3	2002KAb (106881)	2280

Medium: 95% MeOH/H2O, 0.10 M Et4NClO4.

C42H68N2O4 L CAS 188593-77-3 (8954)
2,17-Didodecyl-6,7,9,10,12,13-hexahydro-dibenzo[b,f][1,8,11,14,4,5]tetraoxadiazacyclohexadecine

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

Pb++ sp alc/w RT 100% C K1=2.45 2000GDa (106976)2281
Medium: MeOH.

C43H58N4O12 H3L Rifampicin CAS 13292-46-1 (8977)
3-[[[(4-Methyl-1-piperazinyl)imino]methyl]rifamycin;

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

Pb++ gl alc/w 30°C 50% C T H 2001SKd (107021)2282

K(Pb+H2L)=8.42

K(PbH2L+H2L)=6.55

Medium: 50% v/v MeOH/H2O, 0.05 M KCl. DH(Pb+H2L)=-57.25 kJ mol⁻¹, DS=-28.0
J K-1 mol⁻¹; DH(PbH2L+H2L)=-47.48, DS=-31.0. Also data for 35 and 40 C.

C44H30N4O12S4 H4L (6422)
5,10,15,20-Tetra(p-phenylsulfonic acid)porphin;

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

Pb++ sp NaNO3 25°C 0.10M C 2003KPa (107083)2283
B(PbH-2L)=-9.76

C44H38N8 H2L CAS 48242-70-2 (6629)
5,10,15,20-Tetrakis(1-methylpyridinium-4-yl)porphine;

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

Pb++ sp NaNO3 25°C 0.50M C K1=17.78 1998IHb (107107)2284
K(Pb+H2L=PbL+2H)=-7.49

For the 2-pyridyl analogue, K1=15.20, K(Pb+H2L=PbL+2H)=-7.02

C44H50N4O7F6 L (4218)
7,13-Bis(coumarin 153)-1,4,10-trioxa-7,13-diazacyclopentadecane;

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

Pb++ sp non-aq 20°C 100% U I K1=7.3 1995BBd (107153)2285
Medium: MeCN. In MeOH: K1=5.45

C46H48N4O2 HL CAS 688348-38-1 (9161)
Octahydro-19,22,25-tris(phenylmethyl)-12H-7,11-nitrilo-6H,18H-dibenzo[1,15,5,8,11]dioxatriazac;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	alc/w	25°C	95%	U		K1=< 4	2004PFa (107268)	2286
Medium: 95 % methanol/H2O, 0.1 M Et4NClO4.									

C46H54N4O8F6		L					(4741)		
7,16-Bis(coumarin 153)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;									
Pb++	sp	non-aq	20°C	100%	U I		K1=7.9	1995BBd (107287)	2287
Medium: MeCN. In MeOH: K1=5.95									

C48H30N4O8		H6L					CAS 14609-54-2 (5377)		
Tetracarboxyphenylphorphine;									
Pb++	sp	NaNO3	25°C	0.10M	C		B(PbH-2L)=-9.75	2003KPa (107347)	2288

C48H58N2O4S2		L					CAS 403518-26-3 (8260)		
11,23-Diprop-2-enyl-25,27-bis(dimethylaminothiocarbonylmethoxy)-26,28-dipropoxycalix[4]arene;									
Pb++	sp	non-aq	25°C	100%	C		K1=7.7	2001ACa (107395)	2289
Medium: acetonitrile.									

C48H96N2O4		L					CAS 72469-41-1 (5351)		
N,N-Dioctadecyl-N',N'-dipropyl-3,6-dioxaoctanediamide;									
Pb++	ISE	oth/un	21°C	100%	C		K1=17.2	1999CPa (107448)	2290
Medium: PVC/DOS ion selective electrode membrane (DOS: bis(2-ethylhexyl)-sebacate). Data for structurally related ionophores.									

C69H102N4O9		L					CAS 116352-85-3 (9286)		
para-t-Butyldihomooxacalix[4]arene tetra(diethyl)amide;									
Pb++	sp	alc/w	25°C	100%	C		K1=5.0	2004MFa (107838)	2291
Medium: MeOH, 0.01 M Et4NCl.									

C76H52O46		H9L					Gallotannin CAS 1401-55-4 (2795)		
Tannic acid;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	vlt	oth/un	25°C	0.02M	C			2000CDc (107864)	2292

Keff(Pb+L)=5.46

Medium: 0.01 M KNO₃, 0.01 M acetate buffer, pH 5.0.

C88H96N8O12S4 L CAS 639027-46-6 (9277)

Tetra(benzoylthiocarbamido)cavitand;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	ISE	NaCl	rt	0.01M	C		K1=8.9	2003MGa (107929)	2293
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Method: segmented sandwich membrane ISE.

C88H96N8O16 L CAS 639030-70-9 (9278)

Tetra(benzoylcarbamido)cavitand;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	ISE	NaCl	rt	0.01M	C		K1=5.6	2003MGa (107937)	2294
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Method: segmented sandwich membrane ISE.

C112H120N4O16P4 L CAS 195455-62-0 (9276)

1,21,23,25-Tetrapentyl-7,11,15,28-tetra[(diphenylphosphinyl)acetamidomethylene] cavitand;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	ISE	NaCl	rt	0.01M	C		K1=18.8	2003MGa (107993)	2295
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Method: segmented sandwich membrane ISE.

Phosphonic acid diethyl ester derivative: K1=22.2

Polymer Albumin (3526)

Albumin;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	vlt	KNO ₃	25°C	0.15M	U			1952TAa (108068)	2296
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K1(imidazole)< 2.3(bovine)

Polymer DNA (4185)

Deoxyribonucleic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	vlt	KNO ₃	25°C	0.05M	C			1990SEb (108152)	2297
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K1eff=3.21

Method: cyclic voltammetry. Medium: 0.05 M NaNO₃, 0.001 M acetate, pH 5.9.

Polymer Fulvic acid (1523)

Fulvic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	ISE	NaNO3	25°C	0.10M	U			1977BGc (108181)	2298
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K1eff=2.6

Soil fulvic acid. Constant measured at pH 3.0. At pH 5.0 K1eff=4.1

Polymer		Gelatin					(4187)		
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Gelatin

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	vlt	KNO3	30°C	0.15M	U			1963MMA (108197)	2299
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K(carboxyl)=1.87

Polymer							(5380)		
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Haemoglobin;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	oth	none		0.0	U		K1=4.08	1972BSc (108202)	2300
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Method: Scatchard plot

Polymer		Humic acid					(1524)		
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Humic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	vlt	KNO3	20°C	0.10M	C			1998SAa (108240)	2301
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K1eff=8.37

Method: potentiometric stripping analysis. Medium: pH 6.2.

By DPASV: K1eff=10.06.

Pb++	vlt	KNO3	22°C	0.02M	U			1994BMA (108241)	2302
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Keff(av.)=7.5 to 5.3

Method: differential pulse anodic stripping voltammetry. pH=5; HA from Roth

Pb++	vlt	KNO3	25°C	0.02M	U			1994PMA (108242)	2303
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Keff(av.)=7.6 to 4.8

Method: differential-pulse anodic stripping voltammetry. pH=5; C[L]=2x10-4M;

C[M]=(0.02-1)x10-4 M. Humic acid from Irish moss peat

Polymer		HL					(8040)		
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Metallothionein;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++	cal	oth/un	20°C	var	C	T	H	2000CTa (108258)	2304
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K(1/7Zn7L+Pb=1/7PbL+Zn)=5.11

$$K'(1/7L+Pb=1/7Pb7L)=5.72$$

Medium: HClO4/NaOAc buffer, pH 4.7. DH(K)=-25.2 kJ mol⁻¹, DS(K)=11.6

J K-1 mol⁻¹; DH(K')=-17.8, DS(K')=48.8.

Polymer HL (3531)

Polyacrylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	KNO3	25°C	0.10M	U		K1=3.8 B2= 7.30	2000MMa (108324)	2305

Ligand: cross-linked polyacrylic acid, Aquakeep.

Pb++	gl	NaNO3	25°C	0.10M	U		K1eff=3.7 K2eff=3.4	1999Mca (108325)	2306
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Medium: pH 3.3 for K1eff, 3.7 for K2 eff. [L]/[M]=13.1

Polymer PEG 400 (6647)

Polyethylene glycol 400;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	dis	oth/un	25°C	0.01M	U		K1=0.7	1990SVa (108336)	2307

Medium: 0.01 M Bu4.B(C6H5)4

Polymer Pectin (7149)

Polygalacturonic acid; (C6H8O6)n

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	gl	oth/un	20°C	1.00M	U		K1=3.74	1994DMa (108344)	2308

Polymer (6896)

Polymaleic acid-methacrylic acid copolymer; (-C4H2O3.CH2.C(CH3)COOH-)n

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++	dis	NaCl	25°C	0.10M	U		K1eff=6.7	1993KHa (108350)	2309

Method: dialysis; pH=8 [Pb]=0.00005 M

e- HL Electron (442)

Electron;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Pb++++	EMF	none	25°C	0.00	U	T		1969GMb (783)	2310

$$K=57.167(1690.95mV)$$

K: PbO2(s) + 4H+ + SO4-- + 2e=PbSO4(s) + 2H2O. K=61.091(1685.78mV, 5 C),
60.047(1686.75mV, 10 C), 58.087(1689.35mV, 20 C)

Pb++++ EMF none 35°C 0.00 U T 1969GMb (784)2311
 K=55.435(1694.71mV)
 K: $\text{PbO}_2(\text{s}) + 4\text{H}^+ + \text{SO}_4^{--} + 2\text{e} = \text{PbSO}_4(\text{s}) + 2\text{H}_2\text{O}$. K=53.827(1698.94mV, 45 C),
 52.342(1703.99mV, 55 C)

Pb++++ EMF none 25°C 0.0 U 1965CDc (785)2312
 K=57.142, 1690.1 mV
 K: $\text{PbO}_2(\text{s}) + 4\text{H}^+ + \text{SO}_4^{--} + 2\text{e} = \text{PbSO}_4(\text{s}) + 2\text{H}_2\text{O}$

Pb++++ EMF NaClO4 25°C 1.10M U I 1962BDb (786)2313
 K(Pb+2e=Pb(II))=56.0(1655 mV)
 Medium: HClO4. K=57.1(5.8 M, 1690 mV)

Pb++++ EMF none 25°C 0.0 U H 1959BSf (787)2314
 K=57.04(1687.1 mV)
 K: $\text{PbO}_2(\text{s}) + 4\text{H}^+ + \text{SO}_4^{--} + 2\text{e} = \text{PbSO}_4(\text{s}) + 2\text{H}_2\text{O}$. DH(K)=-304.3 kJ mol⁻¹, 5 to 55 C

Pb++++ oth none 25°C 0.0 U 1952LAb (788)2315
 K=49.19(1455 mV)
 K: $\text{PbO}_2(\text{s}) + 4\text{H}^+ + 2\text{e} = \text{Pb(II)} + 2\text{H}_2\text{O}$

Pb++++ EMF none 25°C 0.0 U T 1935HAa (789)2316
 K=56.99(1684.9 mV)
 K: $\text{PbO}_2(\text{s}) + 4\text{H}^+ + \text{SO}_4^{--} + 2\text{e} = \text{PbSO}_4(\text{s}) + 2\text{H}_2\text{O}$. K=61.91(0 C; 1676.9 mV), 59.83(10 C; 1680.0 mV), 57.90(20 C; 1683.2 mV), 56.11(30 C; 1686.7 mV); 51.41(60 C; 1698.6 mV)

Pb++++ EMF none 25°C 0.0 U 1934ABa (790)2317
 K=19.95(295 mV)
 K: $3\text{PbO}_2(\text{s}) + 2\text{H}_2\text{O} + 4\text{e} = \text{Pb}_3\text{O}_4(\text{s}) + 4\text{OH}^-$. K(PbO₂+H₂O+2e=3PbO(s)+2OH)=8.41(248.8 mV)

Pb++++ EMF oth/un 25°C 6.0M U I 1922GLa (791)2318
 K(Pb+2e=Pb(II))=59(1.75 V)
 Medium: HNO₃. K=58(4 to 2 M; 1720 mV), 57(1 to 0.5 M; 1690 mV)

Pb++++ EMF oth/un 18°C 8.40M U 1922GRa (792)2319
 K=7.20(208 mV)
 Medium: KOH. K: $\text{Pb(OH)}_6 + 2\text{e} = \text{Pb(II)(OH)}_4 + 2\text{OH}^-$

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

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
 Pb++++ nmr NaClO4 25°C 0.3M C 1978MEa (2217)2320
 K((CH₃)₃Pb+Br)=0.29
 Method: 1H nmr. Metal is (CH₃)₃Pb+.

Pb++++ ISE alc/w 25°C 93% C M 1974SHb (2218)2321
 K(PbPh₃+L)=2.91

$K(\text{PbPh}_2+\text{L})=4.49$
 $K(\text{PbPh}_2+2\text{L})=7.50$
 $K(\text{PbPh}_2\text{L}+\text{L})=3.01$
 Medium: 93% MeOH. $K(\text{PbPh}_2+3\text{L})=8.55$ and $K(\text{PbPh}_2\text{L}_2+\text{L})=1.053$

Pb++++ dis NaNO₃ 30°C 0.10M U $K_1=5.7$ 1965SMg (2219)2322
 $K_d(\text{Ph}_3\text{PbOH}(\text{CHCl}_3)+\text{L})=-2.2$
 $K_d(\text{Ph}_3\text{PbOH}(\text{MIBK})+\text{L})=-1.5$

Pb++++ ISE oth/un 25°C 1.0M U 1964KMb (2220)2323
 $B_4=25$
 $K_{so}(\text{PbBr}_2)=-5.37$

CO₃-- H₂L Carbonate CAS 465-79-6 (268)
 Carbonate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++++	nmr	NaClO ₄	25°C	0.3M	C				1978MEa (3344)	2324
									$K((\text{CH}_3)_3\text{Pb}+\text{CO}_3)=2.60$	

Method: 1H nmr. Metal is (CH₃)₃Pb+.

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++++	nmr	NaClO ₄	25°C	0.3M	C				1978MEa (5433)	2325
									$K((\text{CH}_3)_3\text{Pb}+\text{Cl})=0.086$	

Method: 1H nmr. Metal is (CH₃)₃Pb+.

Pb++++	dis	none	20°C	0.0	U	M			1974BCa (5434)	2326
									$K((\text{C}_2\text{H}_5)_3\text{Pb}+2\text{Cl})=0.05$	
									$K((\text{C}_2\text{H}_5)_3\text{Pb}+3\text{Cl})=0.70$	

Pb++++	ISE	alc/w	25°C	93%	C	M			1974SHb (5435)	2327
									$K(\text{PbPh}_3+\text{L})=2.66$	
									$K(\text{PbPh}_2+\text{L})=4.26$	
									$K(\text{PbPh}_2+2\text{L})=6.91$	
									$K(\text{PbPh}_2\text{L}+\text{L})=2.65$	

Medium: 93% MeOH, 1 M LiClO₄

Pb++++	ix	oth/un	25°C	8.0M	U				1972BAa (5436)	2328
									$K(\text{Et}_2\text{Pb}+\text{L}) > 0.5$	
									$K(\text{Et}_2\text{Pb}+2\text{L})=0.90$	
									$K(\text{Et}_2\text{Pb}+3\text{L})=1.05$	
									$K(\text{Et}_2\text{Pb}+4\text{L})=1.0$	

Medium: (H,Li)Cl. $K(\text{Et}_3\text{Pb}+\text{L})=0.54$, $K(\text{Et}_3\text{Pb}+2\text{L})=0.08$, $K(\text{Et}_3\text{Pb}+3\text{L})=-1$

Pb++++	EMF	NaClO ₄	25°C	1.0M	U	M			1972PMa (5437)	2329
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$K(\text{Me}_3\text{Pb}+\text{L})=0.76$
 $K(\text{Me}_2\text{Pb}+2\text{L})=1.31$
 $K(\text{Et}_2\text{Pb}+\text{L})=0.96$
 $K(\text{Et}_2\text{Pb}+2\text{L})=1.74$
 $K(\text{Pr}_2\text{Pb}+\text{L})=0.99$, $K(\text{Pr}_2\text{Pb}+2\text{L})=1.84$. $K(\text{Me}_3\text{Pb}+\text{L})=0.32$, $K(\text{Et}_3\text{Pb}+\text{L})=0.57$

Pb++++ sol none 20°C 0.0 U 1969PFb (5438)2330
 $K_{\text{so}}(\text{Et}_3\text{PbL}(\text{s}))=-2.85$
 $K_{\text{so}}(\text{Pr}_3\text{PbL}(\text{s}))=-4.00$
 $K_{\text{so}}(\text{Bu}_3\text{PbL}(\text{s}))=-5.67$

Pb++++ dis NaNO₃ 30°C 0.10M U 1965SMg (5439)2331
 $K_{\text{d}}(\text{Ph}_3\text{PbOH}(\text{CHCl}_3)+\text{L})=-3.1$
 $K(\text{Ph}_3\text{Pb}+\text{L})=4.8$
 $K_{\text{d}}(\text{Ph}_3\text{PbOH}(\text{i-BuCOMe})+\text{L})=\text{Ph}_3\text{PbL}(\text{i-BuCOMe})+\text{OH})=-3.0$

Pb++++ sol oth/un 20°C var U 1960SLb (5440)2332
 $K(\text{PbO}_2(\text{s})+4\text{H}+6\text{L}=\text{PbL}_6+2\text{H}_2\text{O}) > 10$

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++++	EMF	NaCl04	25°C	1.0M	U			1970PMb (7107)2333 $K(\text{Me}_2\text{Pb}+\text{F})=1.73$ $K(\text{Me}_2\text{Pb}+2\text{F})=2.89$ $K(\text{Et}_2\text{Pb}+\text{F})=1.54$ $K(\text{Et}_2\text{Pb}+2\text{F})=2.55$		
Method: quinhydrone electrode. $K(\text{Pr}_2\text{Pb}+\text{F})=1.61$, $K(\text{Pr}_2\text{Pb}+2\text{F})=2.54$ $K(\text{Me}_3\text{Pb}+\text{F})=0.81$, $K(\text{Et}_3\text{Pb}+\text{F})=0.53$ *****										
I-		HL						CAS 10034-85-2 (20)		
Iodide;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Pb++++	nmr	NaCl04	25°C	0.3M	C			1978MEa (8316)2334 $K((\text{CH}_3)_3\text{Pb}+\text{I})=0.28$		
Method: ¹ H nmr. Metal is (CH ₃) ₃ Pb+.										
Pb++++	ISE	alc/w	25°C	93%	C	M		1974SHb (8317)2335 $K(\text{PbPh}_3+\text{L})=3.432$ $K(\text{PbPh}_2+\text{L})=4.88$ $K(\text{PbPh}_2+2\text{L})=8.56$ $K(\text{PbPh}_2\text{L}+\text{L})=3.68$		
Medium: 93% MeOH. $K(\text{PbPh}_2+3\text{L})=10.5$ and $K(\text{PbPh}_2\text{L}_2+\text{L})=1.95$										
Pb++++	gl	alc/w	25°C	93%	U			1974SHb (8318)2336 $K((\text{C}_6\text{H}_5)_2\text{Pb}+\text{I})=4.88$		

$K((C_6H_5)_2Pb+2I)=8.56$
 $K((C_6H_5)_2Pb+3I)=10.51$
 $K((C_6H_5)_3Pb+I)=3.44$

Medium: 93% v/v MeOH/H₂O, 1 M LiClO₄

OH- HL Hydroxide (57)
Hydroxide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++++	nmr	NaClO ₄	25°C	0.30M	C			1977SBa (11910)	2337
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$K((CH_3)_3Pb+OH)=4.87$

Metal is (CH₃)₃Pb+. $K((CH_3)_3Pb+(CH_3)_3PbOH=((CH_3)_3Pb)_2OH)=1.49$.

Method: 1H nmr.

Pb++++	sol	none	?	0.00	U			1969CHa (11911)	2338
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$K_s=-4.06$

K_s : beta-PbO₂(s)+2OH=PbO₃+H₂O. Also data for Pb01.57Pb01.33

Pb++++	gl	KN03	25°C	0.10M	U			1969ZPa (11912)	2339
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$*K(Me_3Pb+H_2O=Me_3PbOH+H)=-8.70$

For Et₃Pb, $*K_1=-9.05$. For Pr₃Pb, $*K_1=-9.20$. For Bu₃Pb, $*K_1=-9.30$

Pb++++	sol	none	25°C	0.0	M			1967CHa (11913)	2340
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$K_s=-4.13$

K_s : PbO₂(beta,s)+2OH=PbO₂(OH)₂

Pb++++	gl	NaClO ₄	25°C	3.00M	U			1966FTa (11914)	2341
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$*B_2(Me_2Pb)=-15.54$

$*B_3(Me_2Pb)=-28.52$

$*B(2,2-Me_2Pb)=-10.83$

$*B(3,4-Me_2Pb)=-24.31$

Pb++++	dis	NaNO ₃	30°C	0.10M	U			1965SMg (11915)	2342
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$K(Ph_3Pb+L)=7.7$

K_d : (Ph)₃Pb(OH) = (Ph)₃Pb(OH)(org) $K_d=2.9$ (org=CHCl₃) 2.2(iso-BuCOMe)

Pb++++	sol	none	25°C	0.0	U			1962VIa (11916)	2343
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$K_s(PbO_2(s,beta)=H_2Pb(OH)_6(aq))=-4$, $K_s(PbO_2(s,beta)+H=H_3Pb(OH)_6)=-4.8$

Pb++++	sol	none	25°C	0.0	U			1929TOa (11917)	2344
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$I=0$ corr. $K_s(PbO_2(s)+2OH+2H_2O=Pb(OH)_6)$, $K_s(PbO_2(s)+4H_2O=Pb(OH)_6+2H)=-32.36$

P04--- H3L Phosphate CAS 7664-38-2 (176)

Phosphate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Pb++++	nmr	NaClO ₄	25°C	0.30M	C			1978MEa (13300)	2345
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$K((CH_3)_3Pb+HL)=1.88$

Method: ^1H nmr. Metal is $(\text{CH}_3)_3\text{Pb}^+$.

Method: ^1H nmr. Metal is $(\text{CH}_3)_3\text{Pb}^+$.

2nd method:freezing point. Medium:H2S04. m units

Medium: H_2SO_4 . Also by freezing point

A horizontal number line is shown, ranging from 0 to 100. Major tick marks are labeled every 10 units: 0, 10, 20, 30, 40, 50, 60, 70, 80, 90, and 100. Minor tick marks are present between the major ones, representing 1-unit intervals. A vertical line is drawn at the 80 mark, and the number '80' is written below the line.

Method: ^1H nmr. Metal is $(\text{CH}_3)_3\text{Pb}^+$.

SeO3-- H2L Selenite CAS 7783-00-8 (2391)
Selenite;

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

Pb++++ nmr NaClO4 25°C 0.30M C 1978MEa (17069)2353

K((CH3)3Pb+SeO3)=1.95

Method: 1H nmr. Metal is (CH3)3Pb+.

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

Methanoic acid; H.COOH

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

Pb++++ nmr NaClO4 25°C 0.30M C 1977SBa (17638)2354

K((CH3)3Pb+L)=0.86

Method: 1H nmr. Metal is (CH3)3Pb+.

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

Chloroethanoic acid; ClCH2.COOH

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

Pb++++ nmr NaClO4 25°C 0.30M C 1977SBa (19379)2355

K((CH3)3Pb+L)=0.52

Method: 1H nmr. Metal is (CH3)3Pb+.

C2H4O2 HL Acetic acid CAS 64-19-7 (36)

Ethanoic acid; CH3.COOH

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

Pb++++ nmr NaClO4 25°C 0.30M C 1977SBa (20125)2356

K((CH3)3Pb+L)=0.97

Method: 1H nmr. Metal is (CH3)3Pb+.

Pb++++ gl NaClO4 25°C 1.00M U K1=0.54 1969PMa (20126)2357

K(Me3Pb+L)=0.54

K(Et3Pb+L)=0.44

K(Me2Pb+L)=2.62

K(Me2Pb+2L)=3.62

K(Et2Pb+L)=2.77, K(Et2Pb+2L)=3.28; K(Pr3Pb+L)=2.94, K(Pr2Pb+2L)=3.95;

K(Ph2Pb+L)=3.50, K(Ph2Pb+2L)=4.90

C3H6O2 HL Propionic acid CAS 79-09-4 (35)

Propanoic acid; CH3.CH2.COOH

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

Pb++++ nmr NaClO4 25°C 0.30M C 1977SBa (25039)2358

K((CH₃)₃Pb+L)=1.08

Method: 1H nmr. Metal is (CH₃)₃Pb+.

C4H7NO3 HL CAS 543-24-8 (3586)

N-Acetyl glycine; CH₃.CO.NH.CH₂.COOH

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

Pb++++ nmr NaClO₄ 25°C 0.30M C 1977SBa (31507)2359

K((CH₃)₃Pb+L)=0.82

Method: 1H nmr. Metal is (CH₃)₃Pb+.

C5H10O2 HL Pivalic acid CAS 75-98-9 (3026)

Trimethylethanoic acid, 2,2-Dimethylpropanoic acid; (CH₃)₃C.COOH

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

Pb++++ nmr NaClO₄ 25°C 0.30M C 1977SBa (40219)2360

K((CH₃)₃Pb+L)=1.22

Method: 1H nmr. Metal is (CH₃)₃Pb+.

C5H11NS2 HL CAS 147-84-2 (2126)

Diethyldithiocarbamic acid; (CH₃.CH₂)₂N.CSSH

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

Pb++++ vlt NaCl 22°C 0.10M C 1994MBb (41366)2361

K(Et₃Pb+L)=6.28

K(Me₃Pb+L)=5.49

Methods: differential pulse anodic and cathodic voltammetry.

C10H17N3O6S H3L Glutathione CAS 70-18-8 (333)

Glutamyl-cysteinyl-glycine;

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

Pb++++ nmr NaClO₄ 25°C 0.30M C 1981Rba (75139)2362

K(Pb+H₃L)=0.08

K(Pb+H₂L)=1.03

Method: 1H nmr. Metal is (CH₃)₃Pb+

C15H11N3O HL PAN CAS 85-85-8 (572)

1-(2-Pyridylazo)-2-naphthol; C₅H₄N.N:N.C₁₀H₆.OH

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

Pb++++ sp diox/w 25°C 20% U 1967PIa (91236)2363

K(Pb(Et)₂+L)=12.08

Medium: 20% dioxan, 0.1 M ClO₄-

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EXPLANATORY NOTES

DATA Flags are :-

T Data at other TEMPERATURES
I Data with various BACKGROUNDS
H Data for THERMOCHEMICAL quantities
M Data for TERNARY Complexes

EVALUATION Flags are :-

T or IUP=T signifies EVALUATION RATING = Tentative by IUPAC
R or IUP=R signifies EVALUATION RATING = Recommended by IUPAC

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