

SC-Database

Software version = 5.81 Data version = 4.62

Experiment list contains 1456 experiments for
(no ligands specified)

Metal : K+

(no references specified)

(no experimental details specified)

e- HL Electron (442)
Electron;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	EMF	KCl	25°C	0.0	C	I		1997BMa (612)	1	
K(K+e=K(Hg))=-37.15(-2.19766V)										
Method: K(Hg) amalgam electrode. Data for 0-0.6 mass fraction MeOH/H2O, 0.05-2.0 m KCl. K=-36.43 (E=-2.1554 V, x=0.2); K=-35.75 (E=-2.1149, x=0.4)										
K+	EMF	mixed	25°C	10%	U	I		1974DKb (613)	2	
K(K+e=K(s))=-49.27(-2.915V)										
Medium: 10% w/w DMSO/H2O; K=-49.04(-2.901V,20%), -48.43(-2.865V,40%), -47.74(-2.824V,60%)										
K+	oth	none	25°C	0.0	U	I		1972C0a (614)	3	
K(K+e=K(s))=-49.87 (-2.950mV)										
Method: Estimated. MeOH: -54.02(-3.196V).EtOH: -52.63(-3.131V).BuOH: -50.36 (-2.979V).PentOH: -50.36(-2.979V).Me2CO: -49.26(-2.914V)										
K+	oth	none	25°C	0.0	U	I		1972C0a (615)	4	
K(K+e=K(s))=-49.87 (-2.950mV)										
Method: Estimated. MeCN: -56.58(-3.347V).HCOOH: -59.52(-3.521V). Also NH3 and N2H4										
K+	EMF	mixed	25°C	30%	U	I		1972KRb (616)	5	
K(K+e=K(s))=-49.29(-2.916V)										
In: 30% w/w ethylene glycol/H2O; K=-49.17(-2.909V,w=50), -49.04(-2.901V,w=70) -49.46(-2.926V,w=90), -50.68(-2.998V,100%)										
K+	EMF	non-aq	25°C	100%	U	I		1972KRc (617)	6	
K(K+e=K(s))=-49.73(-2.942V)										
Medium: 30% w/w propylene glycol/MeOH; 0% PG: K=-49.60(-2.934V). 50%: -49.92 (-2.953V). 70%: -50.19(-2.969V). 90%: -50.37(-2.980V). 100%: -50.64(-2.996V)										
K+	con	non-aq	-34°C	100%	U			1969DLa (618)	7	
K(K + e(soln))=2.24										
K(2K=K2)=3.18										
Medium: NH3(liquid)										
K+	EMF	alc/w	25°C	100%	U	I		1968DIb (619)	8	

K(K+e=K(s))=-48.43, -2865 mV									
At I=0 corr: K=-49.41, -2923.0 mV. Also values for 6 EtOH/H2O mixtures									
K+	EMF	none	25°C	0.0	U			1967BHc (620)	9
K(K+e=K/Hg)=-33.33, -1971 mV									
K+	EMF	non-aq	25°C	100%	U			1966LCa (621)	10
K'=-51.073, -3020.2 mV									
Medium: CH3NHCHO. K': K + Cl + Ag(s)=K(s) + AgCl(s)									
K+	EMF	alc/w	25°C	100%	U			1958BSb (622)	11
K(K+e=K(s))=-49.38(-2921 mV)									
Medium: MeOH									
K+	EMF	non-aq	25°C	100%	U T			1954PSa (623)	12
K(K+e=K(s))=-48.55(-2.872V)									
Medium: formamide; K=-49.65(-2.868V, 18 C)(M units)									
K+	EMF	none	25°C	0.0	U			1923LRa (624)	13
K(K+e=K(s))=-49.42(-2922.4 mV)									

BF4-			HL					(2497)	
Tetrafluoroborate;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U		K1=1.7	1975YKa (1194)	14
Medium: MeCN									

BO4H4-			HL		Borate		CAS 10043-35-3	(991)	
Borate; B(OH)4-									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	oth/un	25°C	1.00M	U I		K1=0.45	1990RAa (1312)	15
Medium: KCl. Data at I=0 M and at pressures to 2041 atmos.									

Br-			HL		Bromide		CAS 10035-10-6	(19)	
Bromide;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U T		K1=2.37	1993TAa (2070)	16
Medium: 2-methoxyethanol, -10 to 80 C									
K+	con	non-aq	25°C	100%	U I		K1=0.00	1978CAa (2071)	17
Medium: Acetonitrile. Data also for (hexyl)4N+ and (amyl)4N+									
K+	con	non-aq	25°C	100%	U		K1=1.67	1974HPb (2072)	18
Medium: hexamethylphosphotriamide. K1 by Pitts eqn. K1=1.70 (Fuoss-Hsia eqn)									

K+	con non-aq	25°C	100%	U	K1=4.35	1973TKb	(2073)	19
Medium: liquid SO2, 0 corr								
K+	con non-aq	25°C	100%	U	K1=1.8	1971ENa	(2074)	20
Medium: trifluoroethanol. K1=1.68 to 1.91								
K+	con mixed	25°C	8%	U I	K1=0.70	1970BKb	(2075)	21
Medium: 8% t-butanol/H2O. K1=0.90(10%), 0.62(15%), 1.08(20%), 2.60(50%)								
K+	con non-aq	25°C	100%	U	K1=-0.25	1970CDa	(2076)	22
Medium: DMSO								
K+	sol non-aq	25°C	100%	U I	Kso=-2.4	1967AKa	(2077)	23
Medium: DMF. In (Me3N)3PO: Kso=-4.0								
K+	con non-aq	25°C	100%	U	K1=3.38	1965BFb	(2078)	24
Medium: diaminoethane								
K+	con non-aq	0°C	100%	U T H	K1=3.84	1956LLa	(2079)	25
Medium: liquid SO2. K1=3.70(-8.93C), DH(K1)=22.0 kJ mol-1, DS=155 J K-1 m-1								
K+	con non-aq	30°C	100%	U	K1=6.96 ?	1954JGa	(2080)	26
Medium: CH3CO2H								
K+	con non-aq	-34°C	100%	U	K1=2.72	1949HKa	(2081)	27
Medium: liquid NH3								

BrO3-	HL	Bromate			(6017)			
Bromate;								
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference ExptNo
K+	cal	none	25°C	0.0	C	IH		1992BVa (2414) 28
DH(Kso)=41.5 kJ mol-1, measured for I=0.002-0.02 M self medium. Also data for 0.047-0.228 mol fraction MeOH/H2O.								
K+	con	none	25°C	0.0	U		K1=-0.33	1971JBa (2415) 29
K+	con	none	25°C	0.0	U		K1=-0.35	1969BJa (2416) 30
K+	con	none	25°C	0.0	U		K1=-0.32	1969GUc (2417) 31
K+	oth	oth/un	25?°C	0.0	M		K1=0.1	1966MBb (2418) 32
K+	con	alc/w	25°C	50%	U		K1=1.22	1958DTa (2419) 33
Medium: 50% EtOH/H2O								
K+	con	none	25°C	0.0	U		K1=-0.60	1948MOa (2420) 34

K+ con none 18°C 0.0 U K1=-0.35 1927DAb (2421) 35

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	con	oth/un	25°C	0.0	U			1970FKb (2735)	36
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K(K+Ru(CN)6)=2.48

C6N6Co--- H3L Cyanocobaltate (5470)
Hexacyanocobaltate; [Co(CN)6]---

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	con	oth/un	25°C		U		K1=1.0	1974FIb (3494)	37
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K+	con	none	18°C	0.0	U T		K1=1.26	1950JMc (3495)	38
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K1=1.22(25 C)

K+	con	none	25°C	0.0	U		K1=1.47	1947JAa (3496)	39
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C6N6Fe---- H4L (2191)
Hexacyanoferrate (II); Fe(II)(CN)6----

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	gl	KCl	25°C	0.10M	C	TIH	K1=1.80 B(K2Fe(CN)6)=2.14 B(KHFe(CN)6)=4.63	1986CDc (3571)	40
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Data for 10-35 C and 0.05-1.0 M KCl. DH(K1)=7.5 kJ mol⁻¹, DS(K1)=71 J K⁻¹ mol⁻¹; DH(K2Fe(CN)6)=35.6, DS=184; DH(KHFe(CN)6)=32.2, DS=222

K+	ISE	oth/un	25°C	0.0	C		K1=2.39 B2= 5.46 K(2K+Fe(CN)6)=3.20 K(3K+Fe(CN)6)=3.72	1984DRa (3572)	41
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Method: potassium ISE. Extrapolated from data for 0.01-1.0 M KCl.
At I=1.0, K1=1.68, K(2K+Fe(CN)6)=1.96, K(3K+Fe(CN)6)=2.13.

K+	con	oth/un	25°C		U		K1=2.0	1974FIb (3573)	42
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K+	sol	KNO3	25°C	2.00M	U		K1=2.6	1971HFa (3574)	43
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K+	EMF	oth/un	25°C		U		K1=2.28	1969NSa (3575)	44
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Assuming K(K+Fe(CN)6)=1.30

K+	ISE	oth/un	25°C	.004M	U	I	K1=1.78	1967EGa (3576)	45
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Method:K+ sensitive glass electrode. Medium: K4L. K1=2.13(0.0004 M),
2.35(0 corr)

 K+ gl oth/un 40°C .001M U T H K1=2.01 1967EGa (3577) 46
 Medium: K4L. K1=1.95(10 C), 2.00(25 C). DH(K1)=2.5 kJ mol⁻¹. By calorimetry:
 DH=4.1, DS=54

K+ ISE R4N.X 39°C 0.10M U TIH K1=1.6 1966CLb (3578) 47
 Method:K+ glass electrode. Medium: Me4NCl. K1=1.5(25 C). At I=0 corr:
 K1=2.2(25 C), 2.4(39 C); DH=17 kJ mol⁻¹, DS=96 J K⁻¹ mol⁻¹

K+ sp none 25°C 0.0 U K1=2.37 1957CPa (3579) 48

K+ con none 25°C 0.0 U K1=2.3 1949JAa (3580) 49

K+ con none 25°C 0.0 U K1=2.3 1937DAa (3581) 50

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	gl	oth/un	25°C	1.30M	U		K1=1.9	1974HIa (3654)	51
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K+	ISE	oth/un	25°C	.005M	U		K1=1.03	1967EGa (3655)	52
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Medium: K3L. K1=1.29(I=0.001), 1.46(0 corr). When I=0.00125: K1=1.21(10 C),
 1.25(25 C), 1.28(45 C). By calorimetry: DH(K1)=2.1 kJ mol⁻¹, DS=34 J K⁻¹ m-1

K+	sol	oth/un	25°C	3.0M	U		K1=0.30	1967RMd (3656)	53
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Medium: LiNO₃

K+	sol	oth/un	25°C	3.0M	U I		K1=0.30	1967RMd (3657)	54
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Medium: LiNO₃. K1=0.18(I=2), -0.24(I=0.5), 0.90(I=0)
 In LiCl: K1=-0.42(I=3), -0.49(I=2), -0.27(I=1), -0.22(I=0.5), 0.90(I=0)

K+	sol	oth/un	25°C	3.0M	U		K1=0.30	1967RMd (3658)	55
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Medium: LiNO₃

K+	ISE	R4N.X	25°C	0.10M	U T		K1=0.85	1966CLb (3659)	56
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Medium: Me4NCl. 39 C: K1=0.9

K+	ISE	oth/un	25°C	0.0	U T H		K1=1.4	1966CLb (3660)	57
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Medium: 0 corr. 39 C: K1=1.5. DH=-12 kJ mol⁻¹, DS=-62 J K⁻¹ mol⁻¹

K+	sol	oth/un	25°C	3.0M	U H		K1=-0.42	1966MRb (3661)	58
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Medium: LiCl. By calorimetry: DH(K1)=-22.6 kJ mol⁻¹, DS=-84 J K⁻¹ mol⁻¹

K+	con	none	18°C	0.0	U T		K1=1.30	1950JMc (3662)	59
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K1=1.22(25 C)

K+	con	none	25°C	0.0	U		K1=1.40	1949MOa (3663)	60
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C8N8W-- H2L (2192)
 Octacyanotungstate (VI); W(VI)(CN)8--

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	oth/un	25°C	0.00	U		K1=1.36	1976LLa (3703)	61

Cl-		HL		Chloride			CAS 7647-01-0	(50)	
Chloride;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	mixed	25°C	20%	C	I	K1=1.73	2001BSa (5116)	62
Medium: 20 % w/w ethylene carbonate/water. Data for 20-80 % w/w ethylene carbonate/water.									
K+	ISE	none	25°C	0	C	I	K1=-0.51	1995RGa (5117)	63
I=0.16 (Me4N.X) K1=-0.69; I=0.5 (Me4N.X) K1=-0.68.									
K+	oth	alc/w	25°C	100%	U		K1=1.08	1982GBa (5118)	64
Medium: MeOH									
K+	sol	alc/w	25°C	50%	U	I		1982MPe (5119)	65
							Kso(KCl)=-0.706		
Method: K ion selective electrode. Data for 10-90% w/w MeOH/H2O.									
K+	nmr	KCl	25°C	0.10M	U	M		1982SYa (5120)	66
							K(K(18-crown-6)+L)=0.7		
K+	con	mixed	25°C	50%	U		K1=2.2	1974KKc (5121)	67
Medium: 50% w/w EtOH/acetone. K1=2.02 to 2.32(depending upon eqn used)									
K+	con	non-aq	25°C	100%	U		K1=4.73	1973TKb (5122)	68
Medium: liquid sulfur dioxide									
K+	con	mixed	20°C	89%	U		K1=2.79	1973YKa (5123)	69
Medium: 89% w/w butanol/H2O									
K+	con	non-aq	25°C	100%	U		K1=2.0	1971ENa (5124)	70
Medium: trifluoroethanol. K1=1.85 to 2.08									
K+	con	none	25°C	0.0	U			1971HPa (5125)	71
							K1 < -1.59		
K+	con	non-aq	25°C	100%	U		K1=0.07	1971PGa (5126)	72
Medium: N-methylformamide									
K+	con	none	25°C	0.0	U		K1=-0.76	1971PJa (5127)	73
K+	con	mixed	25°C	9.9%	U	I	K1=0.30	1970BKb (5128)	74

Medium: 9.9% w/w t-butanol/H₂O. K₁=0.81(15.1%), 0.91(20.1%)

K+ con non-aq 25°C 100% U K₁=0.38 1970CDa (5129) 75
Medium: DMSO

K+ con diox/w 25°C 50% U I K₁=0.91 1970PSa (5130) 76
Medium: 50% w/w dioxan/H₂O at 1 bar. K₁=0.87(500 bar), 0.84(1000 bar),
In 70% dioxan: K₁=2.32(1 bar), 2.21(500 bar), 2.14(1000 bar). Also 80% diox.

K+ con non-aq 25°C 100% U I K₁=1.17 1970SAf (5131) 77
Medium: 9.57% w/w butanol/MeOH. K₁=1.21(19.7%), 1.40(39.8%), 1.51(51.4%)

K+ con mixed 440°C 90% U I K₁=-3.28 1969HFa (5132) 78
Medium: 90% argon/H₂O. K₁=-2.52(10%). Also other ratios

K+ con mixed 25°C 50% U I K₁=1.0 1968BTc (5133) 79
Medium: 50% THF. K₁=1.59(70%), 2.52(80%), 2.97(85%), 3.87(90%)

K+ con none 25°C 0.0 U K₁=-0.10 1968CFa (5134) 80

K+ sol alc/w 25°C 100% U K_{so}=-2.5 1967AKa (5135) 81
K_{so}=-5.4 in DMF

K+ oth oth/un 25°C 0.0 U K_{so}(KCl, sylvite)=0.898 1967LEa (5136) 82

K+ con alc/w 25°C 60% U I K₁=0.48 1965HKa (5137) 83
Medium: 60.3% EtOH. K₁=1.06(79.3%), 1.37(87.9%)

K+ con non-aq 25°C 100% U I K₁=1.43 1962SHd (5138) 84
Medium: HCOOH. K₁=3.78 in CH₃COOH

K+ con none 281°C 0.0 U T K₁=0.31 1961WLa (5139) 85
I=0 corr. K₁=0.92(306 C)

K+ con alc/w 25°C 100% U K₁=2.10 1957GKa (5140) 86
Medium: EtOH

K+ gl diox/w 25°C 70% U K₁=2.63 1957PGa (5141) 87

K+ EMF non-aq 25°C 100% U K₁=6.88 1956BKa (5142) 88
Medium: CH₃COOH

K+ con non-aq 0°C 100% U T H K₁=4.13 1956LLa (5143) 89
Medium: liquid SO₂. K₁=3.97 (-8.93 C). DH(K₁)=24.8 kJ mol⁻¹, DS=170

K+ con alc/w 25°C 100% U K₁=1.0 1951EKa (5144) 90
Medium: MeOH

K+ con non-aq -34°C 100% U K1=3.06 1949HKa (5145) 91
Medium: liquid NH3

K+ sol oth/un 25°C 0.0 U Kso(KCl)=0.932 1934AKa (5146) 92

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

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

K+ cal none 25°C 0.0 C IH 1992BVa (6037) 93
DH(Kso)=41.5 kJ mol⁻¹, measured for I=0.002-0.02 M self medium.
Also data for 0.047-0.228 mol fraction MeOH/H2O.

K+ con none 25°C 0.0 C I K1=-0.22 1986SDa (6038) 94
Value derived from data for 0.001-0.05 self medium.

K+ con non-aq 25°C 100% U K1=0.69 1975AJa (6039) 95
Medium: DMSO

K+ nmr non-aq 25°C 100% U K1=1.44 1975SAd (6040) 96
Medium: hexamethylphosphoramide

K+ con none 25°C 0.0 U K1=-0.15 1972DDa (6041) 97

K+ con mixed 25°C 1.0% U I K1=-0.16 1972DDb (6042) 98
Medium: 1.0% w/w sulfolane/H2O. K1=-0.09(31.9%), 0.59(75.7%), 1.26(95.3%)

K+ con oth/un 18°C 0.0 U T K1=-0.18 1931BRb (6043) 99
K1=-0.04(25 C)

K+ con none 18°C 0.0 U K1=-0.17 1902KSa (6044) 100

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

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

K+ con non-aq 25°C 100% M K1=1.45 1999DSd (6252) 101
Medium: acetonitrile.

K+ con mixed 25°C 20% C K1=0.87 1994SSb (6253) 102
Medium: 20% w/w propylene carbonate/ethylene carbonate.

K+ con non-aq 25°C 100% C K1=0.031 1990SAb (6254) 103
Medium: propylene carbonate. K1 derived from literature data.

K+ con none 25°C 0.0 C T H K1=0.196 1988YOa (6255) 104
Data for 0-50 C. DH(K1)=-1.8 kJ mol⁻¹, DS(K1)=-2.4 J K⁻¹ mol⁻¹.

K+	con none	25°C	0.0	C	I	K1=-0.46	1986SDa	(6256)	105
Value derived from data for 0.001-0.05 self medium.									
K+	con non-aq	25°C	100%	U	I	K1=1.3	1982Gcb	(6257)	106
Medium: DMF. In DMF and 1,1,3,3-Tetramethylurea: K1=1.1; in DMF and DMSO: 1.0; in DMF and Hexamethylphosphotriamide: 0.9									
K+	con non-aq	25°C	100%	U	I	K1=1.3	1982Gcb	(6258)	107
Medium: DMF. In DMF and beta-picoline: K1=1.3. Other data given									
K+	gl non-aq	25°C	100%	U	H	K1=5.69	1981TMb	(6259)	108
Medium: Glacial acetic acid. Alternative method: Spectrophotometry. DH(K1)=-27 kJ mol ⁻¹									
K+	sol oth/un	25°C	1.0M	U		K1=0.18	1980FSb	(6260)	109
In 1.0 M LiClO ₄ ; in 2.0 M K1=-0.04; ; in 3.0 M K1=0.4 in 4.0 M K1=0.6									
K+	con non-aq	25°C	100%	U		K1=1.43	1978CAa	(6261)	110
Medium: Acetonitrile									
K+	con non-aq	25°C	100%	U		K1=10.7	1975AJa	(6262)	111
Medium: hexamethylphosphoramide									
K+	con non-aq	25°C	100%	U		K1=1.4	1975YKa	(6263)	112
Medium: MeCN									
K+	con oth/un	25°C	?	U	I	K1=1.63	1974ADb	(6264)	113
Medium: benzene/CH ₃ CN. K1=0.146 in ethylene carbonate. Data for other media									
K+	con non-aq	25°C	100%	U	I	K1=1.45	1974ADb	(6265)	114
Medium: MeCN. K1=0.20 in 19.2% MeCN in ethylene carbonate; 0.35 (29.3%); 0.74(53.1%); 1.00(69.2%). In H ₂ O, I-0 corr: K1=-0.01									
K+	con non-aq	25°C	100%	U		K1=0.95	1974HPb	(6266)	115
Medium: hexamethylphosphotriamide. K1 by Pitts eqn, by Fuoss-Hsia: K1=1.25									
K+	con non-aq	25°C	100%	U	I	K1=1.54	1973DDa	(6267)	116
in 14.6% w/w methanol-sulfolane; K1=1.05(14.6%), 1.14(39.6%), 1.29(60.1%), 1.47(88.0%), 1.50(95.9%). Also MeCN-sulfolane and MeCN-benzene									
K+	con non-aq	25°C	100%	U		K1=-0.2	1973JYa	(6268)	117
Medium: propene carbonate; 0 corr									
K+	con alc/w	25°C	100%	U		K1=1.53	1972DAa	(6269)	118
Medium: MeOH									
K+	con non-aq	25°C	100%	U		K1=2.49	1971BHa	(6270)	119
Medium: acetone									

K+	con none	25°C	0.0	U	K1=0.00	1971DAa	(6271)	120
K+	con non-aq	25°C	100%	U T	K1=2.78	1971HEa	(6272)	121
Medium: acetone. -50 C: K1=2.64								
K+	con non-aq	25°C	100%	U	Kso=-8.35	1971JKa	(6273)	122
Medium: methylisobutyl ketone								
K+	con alc/w	25°C	100%	U	K1=1.92	1971NIa	(6274)	123
Medium: EtOH								
K+	con non-aq	25°C	100%	U	K1=0.31	1971PGa	(6275)	124
Medium: N-methylformamide								
K+	con mixed	25°C	70%	U I	K1=1.51	1970ALa	(6276)	125
Medium: 70% w/w t-butanol/H2O. K1=2.79(80%). Medium 0 Corr.								
K+	con non-aq	25°C	100%	U	K1=1.09	1969FOc	(6277)	126
Medium: MeCN. 0 corr.								
K+	sol none	25°C	0.0	U	Kso=-1.94	1969GUb	(6278)	127
K+	con none	25°C	0.0	U	K1=-0.08	1969GUc	(6279)	128
K+	con mixed	25°C	85%	U	K1=1.66	1968BTc	(6280)	129
Medium: 84.5% THF								
K+	con alc/w	25°C	100%	U	K1=1.04	1968CPb	(6281)	130
Medium: MeOH. In MeCN: K1=1.23, also for MeOH-MeCN mixtures								
K+	ISE none	25°C	0.0	U T	Kso=-2.02	1968HRb	(6282)	131
K+	sol alc/w	25°C	100%	U I	Kso=-4.5	1967AKa	(6283)	132
Medium: MeOH. In DMF: Kso=-0.1								
K+	con non-aq	25°C	100%	U	K1=1.13	1967KHe	(6284)	133
Medium: MeCN								
K+	con non-aq	25°C	100%	U T	K1=1.75	1966MWb	(6285)	134
Medium: MeCN, also at 20 C, 30 C								
K+	con non-aq	25°C	100%	U	K1=1.99	1962MWa	(6286)	135
Medium: MeCN								
K+	con none	25°C	0.0	U	K1=-0.48	1945JOa	(6287)	136

CrO4-- Chromate;	H2L	Chromate	CAS 7738-94-5 (2382)
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F-Fluoride;	HL	Fluoride	CAS 7644-39-3 (201)
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K+      ISE NaClO4 25°C  1.0M U TI      K1=-1.7      1984CTd  (6977) 139
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HP03-- H2L Phosphite CAS 13598-36-2 (6305)
Phosphite;

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

K+ sol non-aq 25°C 100% U K1=0.0 1967CKa (7595) 142
Medium: MeCN

I- Iodide;	HL	Iodide	CAS 10034-85-2	(20)
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K+ con mixed 25°C 20% C K1=1.82 1994SSb (8188) 144
Medium:20% w/w propylene carbonate/ethylene carbonate.

K+ con non-aq 25°C 100% U K1=0.70 1982GCa (8189) 145
Medium: DMF

K+	con non-aq	25°C	100%	U	K1=0.43	1976RMa	(8190)	146
Medium: 3-methylsulfonate								
K+	nmr non-aq	25°C	100%	U	K1=0.633	1975SAd	(8191)	147
Medium: hexamethylphosphoramide								
K+	con oth/un	25°C	?	U I	K1=-0.06	1974ADb	(8192)	148
In ethylenecarbonate: K1=0.11								
K+	con non-aq	25°C	100%	U	K1=0.79	1974HPb	(8193)	149
Medium: hexamethylphosphotriamide. Calculated using Pitts eqn. By Fuoss-Hsia K1=1.22								
K+	con alc/w	25°C	100%	U T H	K1=1.51	1974SKa	(8194)	150
Medium: MeOH. DH(K1)=2.1 kJ mol ⁻¹ . K1=1.49 (15 C), 1.51 (35 C), 1.53 (45 C). Data in alcohols up to nonyl alcohol. In BuOH:DH=25.5;K1=2.87(15 C)3.32(45C)								
K+	con non-aq	25°C	100%	U T H	K1=3.97	1974SKa	(8195)	151
Medium: hexanol. DH(K1)=23.0 kJ mol ⁻¹ . K1=3.80(15 C), 4.09(35 C), 4.20(45 C) In nonyl alcohol: DH(K1)=39.3; K1=4.25(15 C),4.69(25 C),4.76(35 C),4.98(45C)								
K+	oth none	25°C	0.0	M	K1=-1.54	1973SOB	(8196)	152
Estimated from literature data. K(Rb+I)=-1.52, K(Cs+I)=-0.70								
K+	con non-aq	25°C	100%	U	K1=3.98	1973TKb	(8197)	153
Medium: liquid SO2								
K+	con non-aq	25°C	100%	U	K1=2.15	1972IWa	(8198)	154
Medium: acetone								
K+	con alc/w	25°C	93.7M	U	K1=1.28	1971BPa	(8199)	155
Medium: 93.7% w/w EtOH/H2O								
K+	con non-aq	25°C	100%	U	K1=1.75	1971ENa	(8200)	156
Medium: trifluoroethanol								
K+	con non-aq	25°C	100%	U	K1=2.45	1971HNB	(8201)	157
Medium: propanol								
K+	con alc/w	25°C	100%	U I	K1=0.96	1971SSb	(8202)	158
Medium:MeOH. K1=1.83 (EtOH), 2.52 (PrOH), 3.02 (BuOH), 3.58 (PentOH) 3.97 (HexOH), 4.38 (HeptOH), 4.66 (OctOH), 5.14 (NonOH).								
K+	con alc/w	25°C	100%	U I	K1=0.36	1970BWC	(8203)	159
Medium: MeOH; K1=1.59 in EtOH								
K+	con non-aq	25°C	100%	U	K1=-1.10	1970CDa	(8204)	160
Medium: DMSO								

K+	con	oth/un	55°C	0.0	U T	K1=-0.14	1968ATb	(8205)	161
K1=-0.20(5 C), -0.19(15,25 C), -0.15(35 C), -0.14(45 C)									

K+	sol	non-aq	25°C	100%	U		1967AKa	(8206)	162
						Kso=-0.5			
Medium: DMF									

K+	con	non-aq	140°C	100%	U	K1=2.07	1967BNb	(8207)	163
						K(K+KI)=4.4			
Medium: liquid I2									

K+	con	non-aq	25°C	100%	U I	K1=1.00	1967JTa	(8208)	164
Medium: HOC2H4NH2. K1=2.62(EtCOMe), 1.83(PhCOMe), 3.56(pyridine), 1.09(MeCN), 2.02(PhCN), 1.98(acetone), 2.41(PrOH)									

K+	dis	none	25°C	0.0	U		1967RMe	(8209)	165
						Kd(K+I=K(TBP)+I(TBP))=-1.64			
With (i-amylo)2MePO: Kd=-1.57									

K+	con	non-aq	25°C	100%	U	K1=2.25	1966SAa	(8210)	166
Medium: acetone									

K+	con	non-aq	25°C	100%	U	K1=2.98	1965BFb	(8211)	167
Medium: diaminoethane									

K+	con	non-aq	25°C	100%	U I	K1=3.32	1964FMb	(8212)	168
Medium: diaminoethane. K1=3.82(diaminopropane)									

K+	con	non-aq	35°C	100%	U T	K1=-1.29	1964JMb	(8213)	169
Medium: MeCN. K1=-2.02(C), -1.05(25 C)									

K+	con	alc/w	25°C	100%	U T	K1=1.68	1961BKb	(8214)	170
Medium: EtOH. K1=1.55(15 C), 1.82(40 C)									

K+	con	non-aq	25°C	100%	U	K1=2.29	1957HUa	(8215)	171
Medium: PhCOMe. Alternative value K1=2.35									

K+	con	non-aq	25°C	100%	U	K1=2.67	1956HUa	(8216)	172
Medium: EtCOMe									

K+	con	non-aq	0°C	100%	U T H	K1=3.52	1956LLa	(8217)	173
Medium: liquid SO2. K1=3.37(-8.93 C). DH(K1)=23 kJ mol ⁻¹ , DS=154 J K ⁻¹ mol ⁻¹									

K+	con	non-aq	-34°C	100%	U	K1=2.39	1949HKa	(8218)	174
Medium: liquid NH3									

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

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

 K+ sol oth/un 25°C 3.0M U H K1=-0.28 1984DSa (8522) 175
 in 3.0 M LiClO4; Also in 2.0 M LiClO4 K1=-0.40; in 4.0 M LiClO4 K1=0.04
 in 1.0 M LiClO4 K1=0.

K+ EMF none 25°C 0.0 U 1973KCb (8523) 176
 Kso(KL(s))=-1.64
 By conductivity: Kso=-1.6

K+ EMF non-aq 25°C 100% U TI 1973KCb (8524) 177
 Kso=-7.2
 Medium: MeOH. By conductivity: Kso=-7.3. In DMSO: Kso=-7.7; by cond.: -7.4

K+ con none 25°C 0.0 U K1=-0.3 1971JBa (8525) 178

K+ con none 25°C 0.0 U K1=-0.24 1969BJa (8526) 179

K+ con mixed 25°C 14% U I K1=0.16 1969SHe (8527) 180
 Medium: 14.3% w/w glycerol/H2O. K1=-0.08(0%), 0.35(25.7%), 0.75(32.0%),
 0.88(44.5%), 1.02(58.7%), 1.33(70.2%)

K+ con diox/w 25°C 30% U I K1=0.37 1959BOa (8528) 181
 Medium: dioxan/H2O, I=0 corr. K1=-0.39(0%), -0.11(9.5%), 0.16(17.9%),
 0.59(37.2%), 0.89(43.8%), 1.18(49.6%), 1.57(57.1%)

K+ con none 25°C 0.0 U K1=-0.25 1956SPc (8529) 182

K+ con none 25°C 0.0 U K1=-0.23 1948MOa (8530) 183

K+ con none 18°C 0.0 U K1=-0.30 1927DAb (8531) 184

 I04- HL Periodate CAS 13444-71-8 (6063)
 Periodate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	con	none	25°C	0.0	U			1948MOa (8606)	185
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K(K+HL)=0.24

 IrCl6--- H3L (1615)
 Hexachloroiridate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	gl	KCl	25°C	0.10M	U T		K1=1.56	1978SKc (8623)	186
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Data also available when T=35, 42 and 50.
 Alternative method: Kinetic studies.

 MnO4- HL Permanganate CAS 13456-41-3 (5678)
 Manganate(VII), Permanganate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	none	25°C	0.0	C			2003KUa	(8633) 187

$$K(KA+L)=1.97$$

$$K(K+A(org))+L=KAL(org))=5.26$$

Distribution from water into 1,2-dichloroethane. K ISE in aqueous phase.

Calc. from data for self-medium, $I < 0.004$ M. A is 18-crown-6.

MoO4-- H2L Molybdate (443)

Molybdate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	oth/un	25°C	?	U	M		1997STa	(8737) 188

$$K(2K+H2L=K2L+2H)=-2.3$$

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

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

Nitrite;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	cal	none	25°C	0.0	C	IH		1992BVa	(9384) 189

DH(Kso)=13.1 kJ mol⁻¹, measured for I=0.002-0.02 M self medium.

Also data for 0.047-0.228 mol fraction MeOH/H2O.

K+	con	oth/un	25°C	0.0	U		K1=-0.11	1964PSh	(9385) 190
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NO3- HL Nitrate CAS 7697-37-2 (288)

Nitrate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	mixed	25°C	20%	C	I	K1=1.87	2001BSa	(9717) 191

Medium: 20 % w/w ethylene carbonate/water. Data for 20-80 % w/w ethylene carbonate/water.

K+	con	none	25°C	0.0	C	T H	K1=0.083	1988Y0a	(9718) 192
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Data for 0-50 C. DH(K1)=-0.5 kJ mol⁻¹, DS(K1)=0.0 J K⁻¹ mol⁻¹.

K+	con	none	25°C	0.0	C	I	K1=-0.22	1986SDa	(9719) 193
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Value derived from data for 0.001-0.05 self medium.

K+	sol	oth/un	25°C	1.0M	U		K1=0.04	1980FSb	(9720) 194
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In 1.0 M LiClO4; in 2.0 M K1=-0.1; in 3.0 M K1=-0.05; in 4.0 M K1=0.04

in 1.0 M LiNO3 K1=-0.7

K+	con	non-aq	25°C	100%	U		K1=2.03	1974HPb	(9721) 195
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Medium: Hexamethylphosphotriamide. K=2.05 using Fuoss-Hsia equation

K+	con non-aq	25°C	100%	U	K1=1.77	1973BMd	(9722)	196
Medium: Hexamethylphosphotriamide								
K+	con diox/w	25°C	45%	U I	K1=2.79	1972SAC	(9723)	197
Medium: Dioxan/MeOH mixtures. In 0% dioxan: K1=1.26. 29.3%: 2.00. 52.6%: 3.27. 62.3%: 4.09								
K+	con oth/un	25°C	0.0	U	K1=-0.22	1971HPa	(9724)	198
K+	con oth/un	25°C	0.0	U	K1=-0.135	1971JBa	(9725)	199
K+	con oth/un	25°C	0.0	U	K1=-0.16	1971PJa	(9726)	200
K+	con oth/un	25°C	0.0	U	K1=-0.12	1969BJa	(9727)	201
K+	con oth/un	25°C	0.0	U	K1=-0.26	1969GUc	(9728)	202
K+	con diox/w	25°C	0.0	U I	K1=0.20	1969MFb	(9729)	203
Also data for dioxan/H2O mixtures								
K+	con diox/w	25°C	65%	U I	K1=1.60	1969SBe	(9730)	204
In 59.8% dioxan, K1=1.18; 71.8%: 2.25; 76.3%: 2.70								
K+	con alc/w	25°C	100%	U I	K1=1.18	1969SBe	(9731)	205
In MeOH/dioxan mixtures, 43.9% MeOH: K1=3.62; 53.2%: 2.91; 61.4%: 2.44; 69.6%: 2.17								
K+	ISE R4N.X	25°C	0.10M	U T H	K1=-0.4	1966CLb	(9732)	206
Medium: Me4NCl. K1=-0.5(39 C). I=0 corr: K1=-0.15(25 C), -0.25(39 C). DH=-13 kJ mol ⁻¹ , DS=-52 J K ⁻¹ mol ⁻¹								
K+	con none	25°C	0.0	U	K1=0.1	1966MBb	(9733)	207
K+	con alc/w	25°C	83%	U	K1=1.59	1963PSa	(9734)	208
Medium: 83% EtOH, I=0 corr.								
K+	con oth/un	25°C	0.0	U	K1=-0.24	1955RSa	(9735)	209
K+	oth oth/un	25°C	0.0	U		1937ROa	(9736)	210
Method: Partial prssure of H2O. K1=0.06 to -0.08								
K+	oth oth/un	18°C	0.0	U	K1=-0.14	1927DAb	(9737)	211
K+	oth oth/un	18°C	0.0	U	K1=-0.11	1927ONa	(9738)	212

OH- HL Hydroxide (57)								
Hydroxide;								

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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 K+ nmr R4N.X 25°C 3.4M C K1=-0.8 2002PLa (11659) 213
 Method NMR K-39
 Medium: 3.4 M Me4NCl/Me4NOH

PF6- HL (2404)
 Hexafluorophosphate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	con	non-aq	25°C	100%	U		K1=1.3	1975YKa (12765)	214
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Medium: MeCN

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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K+	gl	none	25°C	0.0	C	TI	K1=1.37 B(KHL)=13.21 B(KH2L)=19.79 B(K2L)=2.20 B(K2HL)=13.44	1991DDa (13226)	215
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Data also for 10-50 C and 0.04-1.0 M NaCl, KCl or Et4NI

K+	gl	KCl	37°C	0.15M	C		K(K+HL)=0.48	1985DSa (13227)	216
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K+	gl	KNO3	25°C	0.50M	C		K1=0.54 K(K+HL)=0.36 K(K+H2L)=0.18	1983DGa (13228)	217
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K+	gl	KNO3	37°C	0.15M	C		K1=0.6 K(K+HL)=0.48 K(K+H2L)=-0.2	1983DGa (13229)	218
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K+	gl	R4N.X	25°C	0.20M	U	T HM	K(K+HL)=0.49	1956SAc (13230)	219
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Medium: Pr4NCl. K=0.08(0 C). DH(K)=25 kJ mol⁻¹, DS=100 J K⁻¹ mol⁻¹

P206---- H4L Hypophosphate CAS 9803-60-3 (199)
 Hypophosphate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	gl	R4N.X	25°C	0.50M	U		K1=0.36	1967CMc (13414)	220
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Ligand: O3POPHO2---, Medium: Me4NCl

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	NaCl	25°C	0.25M	U	I	K1=1.6 B(KHL)=9.7 B(KH2L)=15.3 B(K2L)=2.0 B(K2HL)=9.5	1994SFb (13603)	221
Medium: Me4NCl. At I=0 corr. K1=2.4, B(KHL)=11.1, B(KH2L)=17.2, B(K2L)=3.4, B(K2HL)=11.3									
K+	gl	KNO3	25°C	0.10M	C	TIH	K1=1.51 B(KHL)=9.81 B(KH2L)=15.5 B(K2L)=2.14 B(K2HL)=9.47	1985DRb (13604)	222
Data at 10-45 C and I=0.02-1.0 M. DH(K1)=-18 kJ mol ⁻¹ ; DS=-33. DH(KHL)=-9; DS=154. DH(K2L)=27; DS=129. DH(K2HL)=36; DS=298 (by T coeff).									
K+	gl	KCl	25°C	0.50M	U		K1=1.51 K(K+HL)=0.46	1982DNa (13605)	223
K+	gl	R4N.X	25°C	0.50M	C		K1=1.50 K(K+HL)=0.46 K(KL+H)=7.4 K(K+H2L=KHL+H)=5.5	1979DHa (13606)	224
Medium: 0.50 M Me4NCl.									
K+	cal	R4N.X	5°C	1.00M	U	H		1973VAa (13607)	225
Medium: Me4NNO3, DH(K1)=2.9 kJ mol ⁻¹ . 35 C, I=0, DH(K1)=7.2									
K+	gl	none	25°C	0.0	U	T	K1=2.3	1959W0a (13608)	226
K1=2.3(40 C)									
K+	gl	R4N.X	25°C	1.00M	U		K1=0.80	1957LWa (13609)	227
Medium: Me4NCl									

P208---- H4L CAS 13825-81-5 (2402)									
Peroxodiphosphate, also cyclic metaposphates, thiophosphates etc.;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	R4N.X	25°C	1.00M	U		K1=1.01	1960CEa (13691)	228
Medium: Me4NCl									

P2W17O61----- Polytungstate (2102)									
alpha-Heterodiphospho-polytungstate (usually alpha1 isomer)									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

K+ gl R4N.X 25°C 1.0M U K1=1.17 1982CCb (13720) 229
K1=1.17

alpha2 isomer

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

K+ gl NaCl 25°C 0.25M U I K1=1.7 1994SFb (13868) 230
B(KHL)=9.9
B(KH2L)=14.7
B(KH3L)=15.7
B(K2L)=2.7

Medium: Me4NCl. B(K2HL)=9.7. At I=0 corr. K1=2.6, B(NaHL)=11.6, B(NaH2L)=
17.0, B(NaH3L)=18.1, B(Na2L)=4.4, B(Na2HL)=12.0

K+ gl KNO3 25°C 0.10M C TIH K1=1.55 1985DRb (13869) 231
B(KHL)=9.76
B(K2L)=2.81

Data at 10-45 C and I=0.02-1.0 M. DH(K1)=-9 kJ mol⁻¹; DS(K1)=-3. DH(KHL)=
-8; DS(KHL)=156. DH(K2L)=-10; DS(K2L)=17. (by T coeff)

K+ gl oth/un 25°C 0.10M U K1=2.53 1975SMa (13870) 232
B(KH(P3010))=11.64

K+ gl none 25°C 0.0 U T K1=2.8 1959W0a (13871) 233
K1=2.8(40 C)

K+ gl R4N.X 25°C 1.00M U K1=1.39 1957WLa (13872) 234
Medium: Me4NCl

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

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

K+ gl R4N.X 25°C 0.10M U K1=1.84 1976K0b (14008) 235

P4013----- H6L Tetraphosphate (1102)
Tetraphosphate;

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

K+ gl R4N.X 25°C 1.0M U K1=1.71 1967WMa (14046) 236
K(K+HL)=1.11

Medium: Me4NCl

K+ EMF oth/un 25°C dil U K1=0.5 1950WCa (14047) 237
Ligand: mostly P5016 7-. Data for many metals given but ligand uncertain

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

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

K+ gl R4N.X 25°C 1.0M U K1=1.01 1960CEa (14060) 238

P6018----- H6L (233)

Cyclohexametaphosphate;

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

K+ gl R4N.X 25°C 0.10M U K1=2.30 B2=4.30 1976KOb (14071) 239

P8024----- H8L (232)

Cyclooctametaphosphate;

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

K+ gl R4N.X 25°C 0.10M U K1=2.70 B2=4.90 1976KOb (14083) 240
B3=6.78

ReO4- HL Perrhenate (2581)

Rhenate(VII), Perrhenate;

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

K+ sol none 25°C 0.0 C 1988HHb (14101) 241
Kso(KReO4)=-2.59

Method: perrhenate ion selective electrode.

K+ con oth/un 18°C 0.0 U K1=1.2 1963SKa (14102) 242

K+ oth none 25°C 0.0 U K1=0.72 1948MOa (14103) 243

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

Thiocyanate;

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

K+ cal none 25°C 0.0 C IH 1992BVa (15112) 244

DH(Kso)=24.2 kJ mol⁻¹, measured for I=0.002-0.02 M self medium.

Also data for 0.047-0.228 mol fraction MeOH/H₂O.

K+ con non-aq 25°C 100% C K1=0.734 1990SAb (15113) 245

Medium: propylene carbonate.

K+ con non-aq 25°C 100% U K1=1.60 1978CAa (15114) 246

Medium: Acetonitrile

 K+ con non-aq 25°C 100% U 1976DCa (15115) 247
 K(KA+NCS)=2.00
 In nitrobenzene. In 70% C6H5NO2/30% toluene, K=3.40, in 50%/50%, K=4.00
 A=Dinitro-18-crown-6.

K+ con non-aq 25°C 100% U K1=1.86 1976RMa (15116) 248
 Medium: 3-methylsulfonate

K+ con non-aq 25°C 100% U I K1=0.85 1976RMb (15117) 249
 Medium: 1,3-Dimethylethyleneurea. In 1,3-Dimethylpropyleneurea K1=-0.078

K+ con non-aq 25°C 100% U K1=1.36 1973GKb (15118) 250
 Medium: MeCN, I=0 corr

K+ con non-aq 25°C 100% U K1=0.5 1973JYa (15119) 251
 Medium: propene carbonate, I=0 corr

K+ con non-aq 25°C 100% U K1=4.33 1973TKb (15120) 252
 Medium: Liquid SO2, I=0 corr

K+ con non-aq 25°C 100% U K1=0.15 1971PGa (15121) 253
 Medium: MeHNCHO

K+ con non-aq 25°C 100% U K1=1.41 1970YKb (15122) 254
 Medium: MeCN, I=0 corr

K+ con non-aq 25°C 100% U K1=1.3 1967SCa (15123) 255
 Medium: NC(CH2)4CN

 S03-- H2L Sulfite CAS 7782-99-2 (801)
 Sulfite;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	R4N.X	25°C	1.0M	C		K1=0.22	1997CHa (15465)	256

Medium: 1.0 M Me4NCl.

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+		con none	25°C	0.0	C	H	K1=0.91	1989Y0a (16267)	257

Data for 0-50 C. DH(K1)=2.4 kJ mol⁻¹, DS(K1)=25.7 J K⁻¹ mol⁻¹.

K+		EMF KCl	25°C	1.0M	C		K1=0.27	1988M0c (16268)	258
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Method: Pt/H2 electrode. Data for 25-200 C.

K+		sol oth/un	25°C	3.0M	U		K1=-0.51	1984DSa (16269)	259
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in 3.0 M LiClO₄;

K+ gl NaCl 37°C 0.10M C I K1=0.54 1982DRb (16270) 260
Data for I=0.03-0.50 M NaCl. At I=0.0 M, K1=0.87

K+ oth oth/un 25°C 0.50M U TI K1=0.85 1980GAb (16271) 261
Method: Ultrasonic absorption. Medium: Na₂SO₄

K+ con none 25°C 0.0 U 1978FFa (16272) 262
K(K+KSO₄)=0.093

K+ con none 25°C 0.0 C K1=1.02 1977FFa (16273) 263
P=1 atm. Also data for P=250-2000 atm.

K+ sol oth/un 25°C 0.70M C K1=0.265 1975EWa (16274) 264
Mixed medium of NaCl, KCl, MgCl₂, NaClO₄, Mg(ClO₄)₂, Na₂SO₄.
Method: solubility of gypsum.

K+ oth none 25°C 0.0 U T K1=0.84 1969HEa (16275) 265
Estimated from literature data. K1=1.00 (50 C), 1.06 (60 C), 1.30 (100 C),
1.60 (150 C); 1.94 (200 C)

K+ cal none 25°C 0.0 U H K1=0.75 1969IEa (16276) 266
DH(K1)=4.22 kJ mol⁻¹, DS(K1)=0 (?)

K+ ISE R4N.X 39°C 0.10M U TI K1=0.5 1966CLb (16277) 267
Medium: Me₄NCl. K1=0.4(25 C). At I=0 corr: K1=0.85(25 C), 0.95(39 C).
DH(K1)=12 kJ mol⁻¹, DS=59 J K⁻¹ mol⁻¹

K+ ISE R4N.X 25°C 0.10M U T K1=0.52 1966CLb (16278) 268
Ligand: peroxodisulfate, S₂O₈²⁻, not SO₄²⁻. Medium: Me₄NCl. K1=0.56(39 C).
At I=0 corr: K1=0.92(25 C), 0.97(39 C); DH(K1)=8 kJ mol⁻¹, DS=42 J K⁻¹ mol⁻¹

K+ con oth/un 700°C 0.0 U T 1966QMa (16279) 269
K(K+HL)=4.3
Medium:0 corr. p=0.40 g cm⁻³. K=1.16(p=0.70,400 C), 3.25(p=0.40,400 C),
1.95(p=0.7,700 C), also for many other p and T

K+ con oth/un 100°C 0.0 U T K1=1.3 1963QFa (16280) 270
K1=1.96(200 C), 1.35(300 C,density 1.0), 1.5(300 C,density 0.8)

K+ con diox/w 35°C 10% U I K1=0.9 1959DDa (16281) 271
I=0 corr. K1=1.0(20% dioxan), 1.3(30%)

K+ con oth/un 25°C 0.0 U K1=0.96 1950JMa (16282) 272

K+ con oth/un 18°C 0.0 U K1=0.82 1930RDa (16283) 273

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

Thiosulfate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	cal	R4N.X	25°C	0.50M	U		K1=0.26	1997MKa (16862)	274
DH(K1)=8.0 kJ mol-1									
K+	cal	oth/un	25°C	0.50M	U	H	K1=0.28	1974ARa (16863)	275
DH=8.20 kJ mol-1.									
K+	con	alc/w	25°C	44%	U		K1=1.93	1956BMa (16864)	276
Medium: 44% EtOH									
K+	sp	alc/w	25°C	50%	U		K1=2.34	1956TMa (16865)	277
Medium: 50% EtOH									
K+	sp	none	25°C	0.0	U T		K1=0.85	1955GMa (16866)	278
K1=0.85(15 C)									
K+	sol	none	25°C	0.0	U		K1=0.92	1951DMb (16867)	279

S207-- L Pyrosulfate CAS 16057-15-1 (8430)									
Pyrosulfate;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	none	25°C	0.0	C T H		K1=1.66	1996DPc (16918)	280
Data for 30-40 C. DH(K1)=10.2 kJ mol-1, DS(K1)=66 J K-1 mol-1.									

SeO4-- H2L Selenate CAS 7783-08-6 (459)									
Selenate;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	oth	oth/un	25°C	var	C			19990Ca (17104)	281
Kso(K2SeO4)=0.902									
Method: osmotic coefficients. Medium: 1.1-4.7 m K2SeO4									

SiO3-- H2L Silicate CAS 7699-41-4 (747)									
Silicate; SiO2(OH)2--									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	oth	none	150°C	0.0	U T			1969HEa (17213)	282
*Ks(KAlSi2O6+4H)=4.70									
Method:est. data. *Ks=-1.14(microcline), -2.31(adularia),-1.25(highsanidine)									
3.80(KAl3Si3O10(OH)2);-2.37(mantmorillanite). also other data, 60-300 C									

SiW11039----- H8L (2464)									
alpha-Heterosilicon-polytungstate;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	R4N.X	25°C	1.0M	U		K1=1.17	1982CCb (17236)	283

TcO4- HL CAS 13568-38-2 (1418)
 Pertechnetate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	oth/un	18°C	0.0	U		K1=0.91	1963SKa (17248)	284
K+	oth	oth/un	25°C	0.0	U		Kso=-0.89	1953CSa (17249)	285

Method: Estimated value

 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
K+	gl	NaCl04	25°C	1.00M	U			1975KIc (17379)	286

K(K+H7PV12036)=2.42

K+	gl	R4N.X	20°C	1.0M	U	I	K1=0.04	1963SGd (17380)	287
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Medium: Me4NCl. In 0.1 M Me4NCl: K(K+H15L10)=1.4, K(K+H14L10)=2.4,
 K(K+KH14L10)=1.0

 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
K+	con	non-aq	30°C	100%	U		K1=6.94	1954JGa (17620)	288

Medium: ethanoic acid

 CH403S HL CAS 75-75-2 (595)
 Methanesulfonic acid; CH3.S03H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	mixed	25°C	20%	C	I	K1=1.77	2001BSa (17938)	289

Medium: 20 % w/w ethylene carbonate/water. Data for 20-80 % w/w ethylene carbonate/water.

K+	con	mixed	25°C	20%	C		K1=2.06	1994SSb (17939)	290
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Medium: 20% w/w propylene carbonate/ethylene carbonate.

 CH504P H2L CAS 2617-47-2 (1977)
 Hydroxymethylphosphonic acid; HO.CH2.PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	R4N.X	25°C	0.10M	U		K1=0.34	1972WFa (18148)	291
Medium: (CH3)4NCl									

		CH6O6P2		H4L	Medronic acid		CAS 1984-15-2	(2384)	
Methanediphosphonic acid; CH2(P03H2)2									
K+	gl	R4N.X	25°C	0.50M	U		K1=1.02 K(K+HL)=0.2	1967CIa (18283)	292
Medium: Me4NCl									

		C2H2O4		H2L	Oxalic acid		CAS 144-62-7	(24)	
Ethanedioic acid; (COOH)2									
K+	gl	NaCl	25°C	0.04M	C	TIH	K1=0.43 B(KHL)=3.60	1992DDb (18932)	293
DH(K1)=14 kJ mol ⁻¹ , DS(K1)=56 J K ⁻¹ mol ⁻¹ ; DH(KHL)=8, DS(KHL)=96. Data for 0.04-1.0 M NaCl and 10-45 C. At I=0.0 M, K1=0.71.									
K+	gl	KCl	37°C	0.15M	C		K1=0.41	1985DSa (18933)	294
K+	gl	KNO3	37°C	0.15M	C	IH	K1=0.41	1983DRb (18934)	295
Method: determination of protonation constant in KNO3 and [Et4N]NO3 media Data for I=0.0-1.0 M KNO3. At I=0.0, K1=0.81; DH(K1)=4.2 kJ mol ⁻¹ , DS=29									
K+	gl	KNO3	37°C	0.10M	C		K1=0.43	1981DRa (18935)	296
Calculated from protonation data for I=0.03-0.3 M KNO3									
K+	sol	KNO3	37°C	dil	C		K1=1.00	1979TNa (18936)	297
Method: solubility in 0.03-0.30 M KCl or NaCl. At I=0.0 M: Kso(CaL.3H2O)=-8.10; Kso(CaL.H2O)=-8.69.									

		C2H4O2		HL	Acetic acid		CAS 64-19-7	(36)	
Ethanoic acid; CH3.COOH									
K+	gl	R4N.X	25°C	0.25M	C	TIH	K1=-0.43	1985DRa (20011)	298
I=0.02-1 M Et4NI. 10-45 C. DH = 5 kJ mol ⁻¹									
K+	gl	R4N.X	25°C	0.16M	U	TI	K1=-0.43	1985RSa (20012)	299
At 10 C: K1=-0.32 (I=0.04); 35 C: -0.35 (I=0.25); 45 C: -0.18 (I=0.16)									
K+	gl	non-aq	25°C	100%	U	H	K1=6.18	1981TMb (20013)	300
Medium: Glacial acetic acid. Alternative method: Spectrophotometry.									

DH(K1)=-19.0 kJ mol⁻¹

K+ gl non-aq 25°C 100% U K1=6.11 1964KLa (20014) 301
Medium: ethanoic acid

K+ sp non-aq 25°C 100% U K1=6.93 1961PSa (20015) 302
Medium: ethanoic acid

K+ EMF non-aq 25°C 100% U K1=6.15 1956BKa (20016) 303
Method: chloranil electrode. Medium: ethanoic acid

K+ con non-aq 30°C 100% U K1=6.44 1954JGa (20017) 304
Medium: ethanoic acid

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

K+ gl R4N.X 37°C 0.25M C TI B(KHL)=8.78 1985DRa (21591) 305

Medium: 0.02-1 M NEt4I

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

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

K+ ISE non-aq 25°C 100% M K1=0.46 B2=0.36 1988NHa (22103) 306
Medium: MeCN, 0.01 M Et4NClO4

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

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

K+ gl R4N.X 25°C 0.50M U K1=1.2 1967CIa (23269) 307
K(K+HL)=0.28

Medium: Me4NCl

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

K+ gl KCl 25°C 0.15M M I K1=1.73 1987MKb (23377) 308
K(K+HL)=1.60
K(K+H2L)=1.57

for 0.3 M KCl K1=1.10; K(K+HL)=1.02; K(K+H2L)=0.98

for 0.5 KCl K1=0.73; K(K+HL)=0.66; K(K+H2L)=0.64

 K+ gl R4N.X 25°C 0.10M U 1972WFa (23378) 309
 K(K+HL)=0.62
 B(2K+L)=2.04

Medium: (CH3)4NCl

 K+ gl R4N.X 25°C 0.50M U K1=1.79 1967CIa (23379) 310
 K(K+HL)=0.36

Medium: Me4NCl

 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
K+	gl	KNO3	20°C	1.89M	M	I	K1=0.60 B(KHL)=5.98 B(K2L)=0.54	1999JDa (24472)	311

Also data for I=1.64 and 1.52 M.

 K+ gl R4N.X 25°C 0.25M C TIH K1=0.68 1985DRa (24473) 312
 B(KHL)=5.31
 I=0.02-1 M Et4NI.T=10-45. DH(K1)=4;DH(KHL)=11 kJ mol⁻¹. DS1=33; DS(KHL)=148

 K+ gl KNO3 37°C 0.15M C IH K1=0.44 B2= 0.67 1983DRb (24474) 313
 Method: determination of protonation constant in KNO3 and [Et4N]NO3 media
 Data for I=0.0-1.0 M KNO3. At I=0.0, K1=0.85; DH(K1)=4.2 kJ mol⁻¹, DS=30

 K+ gl KNO3 37°C 0.15M C K1=0.44 1982DRa (24475) 314
 K(K+HL)=0.2

 C3H7NO L DMF CAS 68-12-2 (598)
 N,N-Dimethylformamide; HCO.N(CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	non-aq	25°C	100%	M		K1=0.18 B2=0.04	1988NHa (25658)	315

Medium: MeCN, 0.01 M Et4NClO4

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	R4N.X	25°C	0.25M	U		K1=1.08	1957WBa (27302)	316

Medium: 0.1-0.4 M (C3H7)4NI

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	R4N.X	25°C	0.25M	U		K1=1.18	1957WBa (27331)	317
Medium: 0.1-0.4 M (C3H7)4NI									

C3H10O6P2		H4L					(3556)		
Propane-2,2-diphosphonic acid; CH3.C(P03H2)2.CH3									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	R4N.X	25°C	0.50M	U		K1=1.60 K(K+HL)=0.35	1967CIa (28400)	318
Medium: Me4NCI									

C4H2O3		L					CAS 108-31-6	(4246)	
Maleic anhydride;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	non-aq	?	100%	U		K(KSCN+L)=-0.68 K(2KSCN+L)=(KSCN)2L=0.84	1971TGa (28621)	319
Medium: CHCl3									

C4H4O4		H2L					CAS 110-16-7	(111)	
cis-Butenedioic acid; HOOC.CH:CH.CO0H									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	R4N.X	25°C	0.25M	C TI		K1=0.84 B(KHL)=6.0	1985DRa (29090)	320
I=0.02-1 M Et4NI. Also 37 C									

K+	gl	KN03	37°C	0.15M	C IH		K1=0.48	1983DRb (29091)	321
Method: determination of protonation constant in KN03 and [Et4N]NO3 media									
Data for I=0.0-1.0 M KN03. At I=0.0, K1=0.83; DH(K1)=4.2 kJ mol-1, DS=30									

C4H6O4		H2L					CAS 110-15-6	(112)	
1,4-Butanedioic acid; HOOC.CH2.CH2.CO0H									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	R4N.X	25°C	0.25M	C TIH		K1=0.48 B(KHL)=5.28	1985DRa (29981)	322
I=0.02-1M Et4NI.T=15-45 C. DH(K1)=4; DH(KHL)=3 kJ mol-1. DS1=30; DS(KHL)=121									

K+	gl	KN03	37°C	0.15M	C IH		K1=0.11 B2= 0.11	1983DRb (29982)	323
Method: determination of protonation constant in KN03 and [Et4N]NO3 media									
Data for I=0.0-1.0 M KN03. At I=0.0, K1=0.53; DH(K1)=4.2 kJ mol-1, DS=24									

C4H6O4S H2L Thiodiacetic CAS 123-93-3 (140)
 2,2'-Thiodiglycolic acid, Thiodiethanoic acid; HOOC.CH2.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	gl	R4N.X	25°C	0.25M	C	I	K1=0.32 B(KHL)=4.07	1987DDd (30220)	324
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Medium: 0.012-0.975 Et4NI. At I=0.0 M, K1=0.78, B(KHL)=4.6

C4H6O5 H2L Malic acid CAS 617-48-1 (393)
 2-Hydroxybutane-1,4-dioic acid, Hydroxy-succinic acid; HOOC.CH2.CH(OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	gl	R4N.X	25°C	0.25M	C	TIH	K1=0.38 B(KHL)=4.5	1985DRa (30653)	325
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0.02-1 M NEt4I. 10-37 C. DH1=1; DH(KHL)=3 kJ mol⁻¹. DS1=17; DS(KHL)=107

K+	gl	KN03	37°C	0.15M	C		K1=0.11 B2= 0.01	1983DRb (30654)	326
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Method: determination of protonation constant in KN03 and [Et4N]NO3 media

Data for I=0.0-1.0 M KN03. At I=0.0, K1=0.45; DH(K1)=4.2 kJ mol⁻¹, DS=23

K+		ISE oth/un	25°C	0.10M	U		K1=0.18	1964RZa (30655)	327
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K+	gl	R4N.X	?	0.28M	U		K1=0.23	1963EDa (30656)	328
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Medium: Me4NBr

C4H6O5 H2L Diglycolic acid CAS 110-99-6 (243)
 Di(carboxy)methyl ether, 2,2'-Oxydiethanoic acid; HOOC.CH2.O.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	gl	oth/un	25°C	0.0	C	I	K1=0.62 B(KHL)=4.04	1999DGa (30886)	329
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Medium: artificial seawater. Extrapolated from data for 5-45% salinity.

K+	gl	R4N.X	25°C	0.25M	C	TIH	K1=0.25 B(KHL)=3.5	1985DRa (30887)	330
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0.02-1 M NEt4I. 12.5-48 C. DH(K1)=9 kJ mol⁻¹, DS=42; DH(KHL)=5, DS=94

C4H6O6 H2L D-Tartaric acid CAS 147-71-7 (93)
 D-Tartaric acid, D-2,3-Dihydroxybutanedioic acid; HOOC.CH(OH).CH(OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	gl	R4N.X	25°C	0.1M	U	IH	K1=0.48	2005ZZa (30976)	331
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Medium: Et4NCl; L or D isomer is not specified. For 0.3 mol/L K1=0.20

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
K+	ISE	R4N.X	25°C	0.20M	U		K1=0.0 K(K+HL)=-0.2	1972DMc (31286)	332

C4H10N3O5P		H3L		Phosphocreatine			(3594)		
Phosphocreatine, N-(Imino(phosphonoamino)methyl)-N-methylglycine; H2O3P.HN.C(:NH)N(CH3)CH2COOH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	nmr	R4N.X	37°C	0.25M	C		K(K+HL)=-0.3	2002CFb (34638)	333
Method: 31P nmr. Medium: 20% v/v D2O/H2O, 0.25 M Me4NCl, pH 7.0.									

C4H10O		HL		t-Butanol			CAS 75-65-0 (1740)		
tert-Butanol, (CH3)3C.OH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U		K1=2.30	1974ESa (34658)	334
Medium: DMSO									

C4H10O3		L					CAS 111-46-6 (3579)		
2,2'-Oxydiethanol; (HO.CH2.CH2)2.O (Diethylene glycol)									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	C		K1=3.6	1992MSe (34701)	335
Medium: 100% MeOH. Anion: picrate. Also data for nitrophenolate anions.									

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
K+	sp	non-aq	25°C	100%	U		K1=1.399	1984AMa (38000)	336
In Dimethyl Sulfoxide (DMSO); Data also for other di- and triketones and esters and their alkali enolates									
K+	gl	diox/w	30°C	75%	U		K1=5.60 B2=9.87	1975MMa (38001)	337
K+	gl	alc/w	25°C	100%	U I		K1=0.9	1965LIa (38002)	338
Medium: MeOH, 0.1 M KI. In EtOH, 0.1 M KSCN: K1=2.1									

C6H3N3O7		HL		Picric acid			CAS 88-89-1 (593)		
2,4,6-Trinitrophenol; HO.C6H2(NO2)3									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

 K+ dis non-aq 25°C 100% C K1=2.97 1999KKb (42111) 339
 Medium: MIBK. Method: distribution of metal picrates into MIBK
 containing HO(CH2.CH2.O)n.C12H25, n=4, 6 or 8.

K+ con non-aq 25°C 100% C T K1=2.58 1999VMa (42112) 340
 Medium: 2-methoxyethanol. Data for 15-35 C.

K+ oth oth/un 25°C 0.04M C K1=0.15 1998TIa (42113) 341
 Method: capillary electrophoresis.
 Medium: 0.005 M phosphate buffer, pH 7.1, 0.04 M MCl.

K+ dis oth/un 25°C dil C K(KA+L)=4.76 1998TKa (42114) 342
 Self medium, I<0.03 M. Method: Extraction of KAL into dichloromethane.
 A is 18-crown-6.

K+ sol none 25°C 0.0 C I Kso(KL)=-3.39 1979LPf (42115) 343
 Method: spectrophotometry. Also data for 10-100% w/w MeOH/H2O.

K+ con none 30°C 0.0 U I M K1=1.42 1979PSa (42116) 344
 K(KL+2Trien-glycol)=1.39
 K(KL+2Tetraen-glycol)=1.44

K+ sp non-aq 20°C 100% U K1=4.6 1978JId (42117) 345
 Medium: CH2Cl2

K+ dis none 25°C 0.00 U I K1=1.64 1972IWc (42118) 346
 In nitrobenzene: K1=2.92

K+ con none 25°C 0.00 M K1=1.64 1971YIa (42119) 347

K+ dis oth/un 25°C var U K1=2.4 1970SSb (42120) 348
 Method: paper chromatography

 C6H4N2O5 HL CAS 50-28-5 (505)
 2,4-Dinitrophenol; HO.C6H3(NO2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U		K1=1.94	1973FGa (42230)	349

Medium: tetrahydrofuran

 C6H4N2O5 HL CAS 329-71-5 (507)
 2,5-Dinitrophenol; HO.C6H3(NO2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	non-aq	20°C	100%	U		K1=4.6	1978JId (42243)	350

Medium: CH₂Cl₂

2,5-Dichlorobenzenesulfonic acid: $\text{H}_3\text{SO}_3\text{C}_6\text{H}_3(\text{Cl})_2$

Medium: 20% w/w propylene carbonate/ethylene carbonate

1,2,3-Propanetricarboxylic acid: $\text{HOOC}-\text{CH}_2-\text{CH}(\text{COOH})-\text{CH}_2-\text{COOH}$

$$B(KHl) = 7.27$$

Values at I=0 calculated from data for 0.04-1.0 M KCl.

2-Hydroxypropane-1, 2, 3-tricarboxylic acid: $\text{HOOCCH}_2\text{CH}(\text{OH})(\text{COOH})\text{CH}_2\text{COOH}$

$$K(2K+1)^{-1} \quad 09$$

Mediumt: Et4NCl. For 0.3 mol/L $K_1=0.72$; $K(2Na+L)=0.92$

K+ gl oth/un 25°C 0 0 C T K1-1 12 1999DGa (16145) 355

B(KH1)-7 13

$$B(KH2L)=11.3$$
$$B(K2HL)=7.0$$
$$B(K2L)=1.93$$
$$B(\text{NaKL})=2.47, \quad B(\text{NaKHL})=7.3.$$

B(K21) -1.95

I=0.1 (Me4N.X) K1=0.92, B(K2L)=1.11; I=0.16 (Me4N.X) K1=0.87, B(K2L)=1.04.

K+ gl KNO3 37°C 0.15M U H K1=0.56 1980DRa (46147) 357
B(KHL)=5.5
At 25C and zero ionic strength, DH1=5.44 kJ mol-1

K+ ISE oth/un 25°C 0.10M U K1=0.59 1964RZa (46148) 358

K+ sp R4N.X 25°C 0.10M C K1=0.43 1961WAa (46149) 359
Medium: 0.16 M Me4NCl.

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	gl	KNO3	25°C	0.10M	C	TIH T	K1=0.79 B(KHL)=9.86	1985DRb (46868)	360
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Data at 10-45 C and I=0.02-1.0 M in KNO3. DH(K1)=17 kJ mol-1; DS=(K1)=70.
DH(KHL)=-3; DS(KHL)=176 (by T coeff.)

K+	sp	R4N.X	25°C	0.10M	C		K1=0.47	1985HAd (46869)	361
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C6H9N3O2 HL Histidine CAS 71-00-1 (1)
2-Amino-3-(4'-imidazolyl)propanoic acid; H2N.CH(CH2.C3H3N2)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	gl	R4N.X	37°C	0.25M	C		B(KHL)=8.44	1985DRa (47571)	362
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Medium: NEt4I

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	con	non-aq	25°C	100%	C		K1=3.6	1992MSe (51049)	363
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Medium: 100% MeOH. Anion: picrate. Also data for nitrophenolate anions.

K+	cal	non-aq	25°C	100%	U	IH	K1=0.34	1991TNa (51050)	364
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Medium: MeOH. DH(K1)=-24.5 kJ mol-1; TDS=-25.0. In MeCN: K1=0.71

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	con	non-aq	25°C	100%	U	M	K1=2.46 K(KA+L)=1.30	1976FGb (51296)	365
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A=Tetra-n-butylammonium-2,4-dinitrophenolate. Medium: Tetrahydrofuran

 C6H15O15P3 H6L Ins(1,2,6)P3 CAS 28841-62-5 (6479)
 D-myo-Inositol 1,2,6-trisphosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	R4N.X	25°C	0.10M	U		K1=2.58 B(KHL)=11.46 B(KH2L)=18.06 B(K2L)=3.84	1991BSa (51536)	366

 C6H16O3P2 L (2075)
 Di(dimethylphosphinylmethyl) ether; Me2P(O)CH2.O.CH2.P(O)Me2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U		K1=2.26	1989KSa (51771)	367
Medium: tetrahydrofuran/CHCl3 4:1 (vol)									

K+	con	non-aq	25°C	100%	U		K1=2.26	1982YSa (51772)	368
Medium: tetrahydrofuran+CHCl3 4:1(vol); M is 2,4-dinitrophenolate									

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	non-aq	25°C	100%	M		K1=0.84 B2=1.00	1988NHa (51980)	369
Medium: MeCN, 0.01 M Et4NClO4									

 C6H18O3Si3 L CAS 541-05-9 (1283)
 Hexamethyl cyclotrisiloxane; ((CH3)2SiO)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	alc/w	25°C	100%	U		K1=<-0.3	1980OPa (52215)	370
Medium: MeOH, 0.1 M Me4NBr									

 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
K+	gl	R4N.X	25°C	0.25M	C	TIH	K1=-0.5	1985DRa (54240)	371
I=0.02-1 M Et4NI. 10-45 C. DH = 8 kJ mol-1									

 C7H6O4 H3L CAS 303-38-8 (1398)
 2,3-Dihydroxybenzoic acid; C6H3(OH)2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ gl NaClO4 25°C 0 C I K1=1.19 1992CRa (54467) 372
K(K+KL)=-0.01
K(K+HL)=0.54

Extrapolated to I=0 from I=0.04 to I=0.81

C7H8O3S HL CAS 6192-52-5 (561)
4-Toluenesulfonic acid; CH3.C6H4.SO3H

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

K+ con mixed 25°C 20% C I K1=1.95 2001BSa (56119) 373
Medium: 20 % w/w ethylene carbonate/water. Data for 20-80 % w/w ethylene carbonate/water.

C8H4O3 L CAS 85-44-9 (4473)
Phthalic anhydride;

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

K+ sp non-aq ? 100% U 1971TGa (58396) 374
K(K+L)=(K+L)
K(2K+L)=(2K+L)

Medium: CH3CN

C8H5N5O6 H3L Murexide (453)
Purpuric acid (Murexide is ammonium salt);

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

K+ sp non-aq 20°C 100% U K1=2.72 1992PSa (58513) 375
Medium: DMF, 0.01 M Me4NI

C8H5O2F3S HL TTA CAS 326-91-0 (165)
4,4,4-Trifluoro-1-(2-thienyl)butane-1,3-dione; F3C.CO.CH2.CO.C4H3S

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

K+ dis non-aq 25°C 100% C M 2002IIa (58634) 376
K(KL+phen)=3.41
K(KL+2(phen))=5.74

Medium: chlorobenzene. For extraction from 0.10 M KCl:

K(K+HL(o)=KL(o)+H)=-12.21; K(K+HL(o)+phen(o)=KL(phen)(o)+H)=-8.75.

K+ gl alc/w 25°C 100% U I K1=1.6 1965LIa (58635) 377

Medium: MeOH, 0.1 M KI. In EtOH, 0.1 M KSCN: K1=3.2

C8H6O4 H2L Phthalic acid CAS 88-99-3 (113)
Benzene-1,2-dicarboxylic acid; C6H4(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	R4N.X	25°C	0.25M	C	TIH	K1=0.83 B(KHL)=5.16	1985DRa (58976)	378
0.02-1 M NEt4I. 10-37 C. DH(K1)=1 kJ mol-1, DS=25; DH(KHL)=8, DS=134									
K+	gl	KNO3	37°C	0.15M	C	IH	K1=0.41 B2= 0.19	1983DRb (58977)	379
Method: determination of protonation constant in KNO3 and [Et4N]NO3 media Data for I=0.0-1.0 M KNO3. At I=0.0, K1=0.76; DH(K1)=3.8 kJ mol-1, DS=26 *****									
C8H8		L					CAS 629-20-9	(2539)	
1,3,5,7-Cyclooctatetraene; cyclo(-CH:CH.CH:CH.CH:CH.CH:CH-)									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	nmr	non-aq	23°C	100%	U		K1=2.66	1976SCa (59248)	380

C8H8O3		HL					CAS 122-59-8	(1153)	
Phenoxyethanoic acid; C6H5.O.CH2.COOH									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	none	25°C	0.0	C	TIH	K1=-0.01	1985CDb (60037)	381
Calculated from protonation data for I=0.04-0.9 M KCl. Data for 10-45 C. DH(K1)=1.0 kJ mol-1, DS(K1)=4 J K-1 mol-1. *****									
C8H9N3O7		H2L					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
K+	cal	R4N.X	20°C	0.1M	C			1976ANb (60633)	382
							DH1= -1.67 kJ/mol		
in Me4NCl									
K+	gl	KNO3	39°C	0.10M	U	TIH	K1=0.70	1963IFb (60634)	383
K1=1.23(20 C),1.00(27 C),0.81(34 C), DH(K1)=-49.3 kJ mol-1, DS=-146 J K-1m-1 At I=0 corr:K1=1.94(20 C) *****									
C8H11O2F3		HL					CAS 22767-90-4	(1249)	
1,1,1-Trifluoro-5,5-dimethyl-2,4-hexanedione; F3C.CO.CH2.CO.CH(CH3)3									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	oth	diox/w	25°C	75%	U		K1=3.34 B2=7.17	1979MMa (61303)	384

C8H12O2		HL					CAS 126-81-8	(1137)	
5,5-Dimethyl-1,3-cyclohexanedione;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

 K+ gl alc/w 25°C 100% U I K1=0.8 1965LIa (61685) 385
 Medium: MeOH, 0.1 M KI. In EtOH, 0.1 M KSCN: K1=1.8

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
K+	ISE	alc/w	25°C	100%	C I T		K1=1.60 B2= 2.10	2003ADa (62670)	386

 IUPAC Tentative. Medium: 0-0.1 M. In PC K1=2.08

K+ oth oth/un 25°C U K1=-0.06 2000MTa (62671) 387
 Method: capillary zone electrophoresis.
 Medium: 0.005 M H3BO3/Me4NOH, pH 9.2.

K+ cal non-aq 25°C 100% C H K1=0.68 B2= 1.18 1996OKa (62672) 388
 Medium: DMF, 0.10 M Et4NCl. DH(K1)=-19.5 kJ mol⁻¹, DS(K1)=-52 J K⁻¹ mol⁻¹;
 DH(K2)=6, DS(K2)=29.

K+ con alc/w 25°C 100% U I K1=1.408 1995DSb (62673) 389
 Medium : MeOH. In MeCN K1=2.231

K+ con non-aq 25°C 100% U K1=3.1 1993EVa (62674) 390
 Medium: THF+CHCl3 (4:1 vol)

K+ ISE non-aq 25°C 100% M IH K1=2.02 B2=4.67 1988BUa (62675) 391
 Medium: propylene carbonate (also CH3CN), 0.05 M (CH3CH2)4NClO4.
 DH(K1)=-14.6, DH(K2)=-8.7 kJ mol⁻¹; DS(K1)=-10.4, DS(K2)=21.5 J K⁻¹ mol⁻¹

K+ con non-aq 25°C 100% C K1=1.73 B2= 2.59 1987ZBb (62676) 392
 Medium: MeOH.

K+ nmr alc/w 30°C 100% U K1=1.7 B2=2.4 1983AAa (62677) 393

K+ ISE alc/w 25°C 100% U K1=1.74 1983GGa (62678) 394
 Medium: MeOH

K+ gl alc/w 25°C 100% U H T K1=1.59 B2=2.18 1982MRa (62679) 395
 Medium: MeOH. DH(K1)=23.0 kJ mol⁻¹

K+ ISE alc/w 25°C 100% U T K1=1.58 B2=1.73 1982MYc (62680) 396
 Medium: MeOH

K+ vlt non-aq 25°C 100% U K1=2.15 1980MDa (62681) 397
 Medium: propylene carbonate

C8H18O4 L Triglyme CAS 112-49-2 (2358)
 1,2-Bis(methoxyethoxy)ethane; CH3O.C2H4O.CH2.CH2.OC2H4.OCH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U I		K1=2.4	1993EVa (62986)	398
Medium: THF+CHCl3 4:1(vol). In 100% THF: K1=2.2									

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									
K+	con	non-aq	25°C	100%	C		K1=3.7	1992MSe (63003)	399
Medium: 100% MeOH. Anion: picrate. Also data for nitrophenolate anions.									

C8H20N4	L	Cyclen					CAS 294-90-6 (10)		
1,4,7,10-Tetraazacyclododecane; cyclo(-(NH.CH2.CH2.)4-)									
K+	EMF	non-aq	25°C	100%	U I		K1=2.90	1996WPa (63293)	400
Medium: acetonitrile, 0.05 M NEt4ClO4. In propylene carbonate K1=4.8; in dimethylformamide K1<2									

C8H20O4P2	L						CAS 86536-56-3 (2076)		
1,2-Bis(2-dimethylphosphinylmethoxy)ethane; Me2P(O)CH2.O.CH2.CH2.O.CH2.P(O)Me2									
K+	con	non-aq	25°C	100%	U		K1=3.15	1989KSa (63310)	401
Medium: tetrahydrofuran/CHCl3 4:1 (vol)									

C9H6O4	HL	Ninhydrin					CAS 485-47-2 (2536)		
1,2,3-Indantrione monohydrate, Trioxohydrindene monohydrate;									
K+	nmr	non-aq	25°C	100%	U I		K1=1.85	1976AFa (63951)	402
Medium: Hexamethylphosphoramide. Data also for a variety of mixed media									

C9H11N3O7	H3L						(3877)		
N-(1-Methyl-2,4,6-trioxo-perhydropyrimidinyl)iminodiethanoic acid;									
K+	gl	R4N.X	20°C	0.10M	U		K1=1.11	1963IFb (66525)	403
Medium: Me4NNO3									

C9H11O2F5	HL						CAS 2145-68-8 (1251)		
1,1,1,2,2-Pentafluoro-6,6-dimethyl-3,5-heptanedione;									
K+	gl	R4N.X	20°C	0.10M	U		K1=1.11	1963IFb (66525)	403
Medium: Me4NNO3									

C9H11O2F5	HL						CAS 2145-68-8 (1251)		
1,1,1,2,2-Pentafluoro-6,6-dimethyl-3,5-heptanedione;									

K+ oth diox/w 25°C 75% U K1=3.67 B2=7.30 1979MMa (66535) 404

C9H16O2 HL CAS 18362-64-6 (1134)

2,6-Dimethyl-3,5-heptanedione; (CH3)2.CH.CO.CH2.CO.CH(CH3)2

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

K+ gl diox/w 30°C 75% U K1=3.86 B2=7.45 1975MMa (67745) 405

C9H18O3Si3 L CAS 3091-77-7 (1284)

Trimethyl-triethenyl-cyclotrisiloxane; ((CH3)(CH2:CH)SiO)3

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

K+ con alc/w 25°C 100% U K1=<-0.3 1980Pa (67967) 406

Medium: MeOH, 0.1 M Me4NBr

C9H20O6Cl2P2 L CAS 19928-93-7 (2633)

Dichloromethylenedi(phosphonic acid diethyl ester); Cl2C(PO.(OC2H5)2)2

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

K+ con non-aq 22°C 100% U K1=0.88 1981SKd (68122) 407

Medium: CH3CN

C10H2O6 L CAS 3308-42-7 (4698)

1,2,4,5-Benzenetetracarboxylic dianhydride;

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

K+ sp non-aq ? 100% U 1971TGa (68419) 408

K(KSCN+L)=-0.42

K(2KSCN+L)=(KSCN)2L)=0.9

Medium: CH3CN

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

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

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

K+ gl none 25°C 0.0 C 1990CDc (68517) 409

B(KH3L)=14.33

B(K2L)=3.4

B(K2HL)=8.8

B(K2H2L)=12.8

Additional technique: spectrophotometry. Kso(KH3L)=-17.18.

K+ gl R4N.X 25°C 0.25M C I 1990DDb (68518) 410

B(KHL)=6.15

B(KH2L)=9.95
B(KH3L)=12.20
B(K2HL)=5.9

Medium: 0.25 M Et4NI. Data for 0.08-0.99 M. B(K2L)=1.2

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

K+ gl alc/w 25°C 100% U I K1=1.2 1965LIa (70738) 411
Medium: MeOH, 0.1 M KI. In EtOH, 0.1 M KSCN: K1=2.4

C10H11O2F7 HL CAS 17587-22-3 (1252)
1,1,1,2,2,3,3-Heptafluoro-7,7-dimethyl-4,6-octanedione;

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

K+ oth diox/w 25°C 75% U K1=3.61 B2=7.30 1979MMA (71110) 412

C10H13NO3 H3L (3912)
1,3-Dimethyluramil-N,N-diethanoic acid;

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

K+ gl R4N.X 20°C 0.10M U K1=0.94 1963IFb (71805) 413
Medium: Me4NNO3

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

K+ gl R4N.X 25°C 0.10M C TI R K1=0.70 1991SMa (72455) 414
IUPAC evaluation. 37 C, 0.15 NaCl: K1=0.36

K+ ISE oth/un 25°C 0.0 C K1=1.91 1976KRb (72456) 415
Method: K ion selective electrode. Self medium, pH 9.1.

C10H15N5O10P2 H3L ADP CAS 20398-34-9 (2181)
Adenosine-5'-diphosphoric acid;

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

K+ gl R4N.X 25°C 0.10M C TI R K1=1.00 1991SMa (72985) 416
IUPAC evaluation

K+ ISE oth/un 25°C 0.20M U K1=0.67 1954MEa (72986) 417

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
K+	gl	R4N.X	25°C	0.15M	M		K1=1.60 K(KL+H)=10.32 K(KHL+H)=6.05	1993CRa (73889)	418

Medium: 0.15 M Me4NCl.

K+	gl	mixed	25°C	0.10M	U		K1=1.41	1991SBa (73890)	419
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Medium: 0.34 mol parts CH3CN/H2O, 0.1 M R4NX

K+	gl	KNO3	25°C	0.10M	C	TIH	K1=0.80	1985DRb (73891)	420
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Data at 10-45 C and I=0.02-1.0 M in KNO3. DH(K1)=5 kJ mol⁻¹; DS=30.

K+	gl	R4N.X	25°C	0.10M	U	I T	K1=0.55	1968WSa (73892)	421
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Medium: (CH3)4NCl. I=1.0: K1=0.69

K+	gl	oth/un	25°C	0.32M	U		K1=0.96 K(K+HL)=-0.31	1965BCa (73893)	422
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Medium: CsCl

C10H16N5O13P3 H4L ATP CAS 56-65-5 (403)
Adenosine-5'-triphosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	R4N.X	25°C	0.10M	C	IH R	K1=1.17	1991SMa (74741)	423

IUPAC evaluation. DH(K1)=1.3 kJ mol⁻¹ (tentative)

K+	gl	oth/un	25°C	0.25M	U	H	K1=1.20 B(KHL)=6.58	1986RSa (74742)	424
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K+	gl	R4N.X	25°C	0.10M	U	H	K1=1.42	1981CMd (74743)	425
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Method: effect of Na on ligand protonation.
By calorimetry, DH(K1)=1.3 kJ mol⁻¹, DS(K1)=33 J K⁻¹ mol⁻¹.

K+	ISE	oth/un	25°C	0.01M	U		K1=1.95	1971MEb (74744)	426
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K+	ISE	oth/un	25°C	0.0	U		K1=2.35	1970MRb (74745)	427
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Method: K-glass electrode. Using a valinomycin electrode, K1=2.34

K+	ISE	oth/un	25°C	0.0	U		K1=2.34	1970RMb (74746)	428
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K+	gl	oth/un	25°C	0.32M	U		K1=0.9 B2=0.70 K(K+HL)=-0.3	1965BCa (74747)	429
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Medium: CsCl

K+	ISE	oth/un	25°C	0.20M	U		K1=0.99	1954MEa (74748)	430
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C10H17N5O16P4 H5L AQP CAS 1062-98-2 (3341)
Adenosine-5'-tetraphosphoric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ gl R4N.X 25°C 0.10M C T K1=1.54 1991SMa (75158) 431
IUPAC evaluation

C10H18O6 L 2-Oxo15-crown-5 CAS 73349-22-1 (609)
1,4,7,10,13-Pentaoxacyclopentadecan-2-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ ISE alc/w 25°C 100% U K1=2.12 1982MKa (75609) 432
Medium: MeOH

C10H20O5 L 15-Crown-5 CAS 33100-27-5 (576)
1,4,7,10,13-Pentaoxacyclopentadecane; cyclo(-(0.CH2.CH2)5-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ ISE alc/w 25°C 100% C IH T K1=3.5 B2= 6.00 2003ADa (76006) 433
IUPAC Tentative. Medium: 0-0.1 M various. DH(K1)=-32.4 kJ mol⁻¹.
In H2O: K1=0.75, DH(K1)=-17.2. In PC: K1=3.6

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ sp non-aq 25°C 100% C K1=3.80 2002NMa (76007) 434
Medium: THF, using metal picrate salt.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ oth oth/un 25°C U K1=0.53 2000MTa (76008) 435
Method: capillary zone electrophoresis.
Medium: 0.005 M H3BO3/Me4NOH, pH 9.2.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ con non-aq 25°C 100% C H K1=3.90 B2= 5.55 1999WBa (76009) 436
Medium: N,N-dimethylformamide. By calorimetry: DH(K1)=-24.0 kJ mol⁻¹,
DH(K2)=-27.7 kJ mol⁻¹.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ vlt non-aq 25°C 100% C I K1=4.4 1999WKb (76010) 437
Medium: acetonitrile, 0.10 M Et4NClO4. Also data for TMS, propylene carbonate, acetone, formamide, DMF, DMA, DMSO, MeOH, EtOH.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ ISE alc/w 25°C 100% U H K1=3.40 B2= 5.83 1998SSf (76011) 438
Medium: 100% MeOH, 0,05 M Et4NI

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ con alc/w 25°C 100% U I K1=2.385 1995DSb (76012) 439
Medium : MeOH. In MeCN K1=3.670

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ cal non-aq 25°C 100% M H K1=4.26 1994BCd (76013) 440
Medium: acetone. DH(K1)=-26.9 kJ mol⁻¹, TDS=-2.7

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ ISE non-aq 25°C 100% M IH K1=3.78 B2=6.62 1988BUa (76014) 441

Medium: propylene carbonate (also CH₃CN), 0.05 M (CH₃CH₂)₄NC104.
 DH(K₁)=-30.5, DH(K₂)=-29.5 kJ mol⁻¹; DS(K₁)=-30.2, DS(K₂)=-44.9 J K⁻¹ mol⁻¹

K+ cal non-aq 25°C 100% C H K₁=4.33 1988BUB (76015) 442
 Medium: acetonitrile. DH(K₁)=-32.0 kJ mol⁻¹, DS(K₁)=-25 J K⁻¹ mol⁻¹.

K+ con non-aq 25°C 100% C T K₁=4.0 1988TKa (76016) 443
 Medium: MeCN

K+ ISE alc/w 25°C 90% U K₁=3.00 B₂=5.24 1987KHa (76017) 444
 Medium: 90% w/w MeOH/H₂O

K+ con non-aq 25°C 100% C I K₁=3.38 B₂= 6.00 1987ZBb (76018) 445
 Medium: MeOH. In 70% w/w MeOH/H₂O, K₁=2.79, K₂=2.04.

K+ ISE alc/w 25°C 100% U K₁=3.35 B₂=5.97 1984IEa (76019) 446
 Medium: MeOH

K+ ISE non-aq 25°C 100% M K₁=3.34 1984NMb (76020) 447
 Medium: MeOH.

K+ ISE alc/w 25°C 100% U K₁=3.43 1983GGa (76021) 448
 Medium: MeOH

K+ gl alc/w 25°C 100% M H T K₁=3.61 1982MRa (76022) 449
 Medium: MeOH. DH(K₁)=-32.1 kJ mol⁻¹

K+ ISE alc/w 25°C 100% U T K₁=3.34 B₂=5.55 1982MYc (76023) 450
 Medium: MeOH

K+ ISE alc/w 25°C 100% C K₁=3.1 B₂=6.0 1981PTa (76024) 451
 Medium: MeOH

K+ con non-aq 25°C 100% U K₁=2.98 1980HNa (76025) 452
 Medium: MeCN

K+ cal alc/w 25°C 100% U H T K₁=3.77 B₂=6.48 1980LIa (76026) 453
 Medium: MeOH. DH(K₁)=-32.2 and DH(K₂)=-33.9 kJ mol⁻¹.

K+ dis non-aq 25°C 100% U K₁=3.4 1980TYa (76027) 454
 Medium: propylene carbonate

K+ EMF oth/un 25°C var C T K₁=0.76 1979HRa (76028) 455
 Method: ISE based on cation exchange membrane. Medium: aqueous,
 containing 0.06-0.25 m ligand.

K+ oth oth/un 25°C ? U K₁=0.74 1977RLa (76029) 456
 Method: ultrasound absorption

K+ cal oth/un 25°C 0.10M U H T K₁=0.74 1976ITb (76030) 457

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	KCl	25°C	0.30M	U		K1=2.98 B(K2L)=4.56 B(K+HL)=2.21 B(K+H2L)=1.36 K(K+H3L)=0.61 K(K+H4L)=0.26, K(2K+HL)=2.1	1991RSa (76885)	468
C11H18N2O8 H4L PDTA CAS 4408-81-5 (1655) 1,2-Diaminopropane-N,N,N',N'-tetraethanoic acid;									
K+	oth	R4N.X	25°C	0.50M	U		K1=0.91 K(K+H2L)=0.79	1971CSb (79299)	469
Method: polarimetry. Medium: Me4NOH									
K+	nmr	oth/un	35°C	?	U T		K1=0.75	1968SSa (79300)	470
K1(100 C)=0.18									
K+	nmr	oth/un	100°C	0.50M	U		K1=0.1	1968SSc (79301)	471
Medium: K4L									
C11H18O7 HL (6800) 1,4,7,10,13-Pentaoxacyclohexadecan-14,16-dione;									
K+	kin	alc/w	?	76%	U		K1=0.78	1991HHb (79671)	472
Medium: 76% w/w EtOH/H2O									
C11H20O2 HL Dipivaloylmeth. CAS 1118-71-4 (363) 2,2,6,6-Tetramethyl-3,5-heptanedione; (CH3)3C.CO.CH2.CO.C(CH3)3									
K+	gl	diox/w	30°C	75%	U		K1=3.89	1975MMa (79749)	473
C11H22O5 L 16-Crown-5 CAS 55477-28-8 (1592) 1,4,7,10,13-Pentaoxacyclohexadecane; cyclo(-(O.CH2.CH2)5.CH2.CH2-)									
K+	dis	none	25°C	0.0	U		Keff=3.60	1991IOa (79854)	474
By solvent extraction of the metal picrate into dichloromethane.									
K+	ISE	none	25°C	0.0	C		K1=0.40	1991TKa (79855)	475

Self medium (ca. 0.008M). Method: K ion-selective electrode.

K+ dis none 25°C 0.0 C M 1989TKc (79856) 476
K(KL+A=KAL(org))=1.63

Method: extraction of metal picrate/L from H2O into benzene.

K(K+HA(org)+L(org)=KAL(org)+H)=0.041. HA is picric acid.

K+ con non-aq 25°C 100% C I K1=3.6 1988TKa (79857) 477

Medium: MeCN. In propylene carbonate K1=3.2; in MeOH 2.9

C11H22O6 L CAS 69496-26-0 (1663)

1,4,7,10,14-Pentaoxacyclohexadecan-12-ol, Hydroxy-16-crown-5

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

K+ ISE alc/w 25°C 100% U K1=2.53 1983IKa (79878) 478

C12H5N5O9S HL CAS 27050-59-3 (4943)

1,3,7,9-Tetranitrophenothiazine-5-oxide;

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

K+ dis oth/un 25°C var U K1=1.11 1972IWb (80064) 479

K+ con non-aq 25°C 100% U K1=1.67 1972IWb (80065) 480

Medium: nitrobenzene.

C12H5N7O12 L Dipicrylamine CAS 131-73-7 (1942)

Di(2,4,6-trinitrophenyl)amine; HN(C6H2(NO2)3)2

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

K+ dis non-aq 25°C 100% C K1=4 1998KSc (80073) 481

Medium: 1,2-dichloroethane.

K+ sp non-aq 20°C 100% U K1=4.9 1978JId (80074) 482

Medium: CH2Cl2

K+ dis oth/un 25°C var U K1=2.05 1972IWb (80075) 483

K+ con non-aq 25°C 100% U K1=1.51 1972IWb (80076) 484

Medium: nitrobenzene

K+ dis oth/un 25°C var U K1=1.9 1970SSb (80077) 485

Method: paper chromatography

C12H6O3 L CAS 81-84-8 (4892)

1,8-Naphthalenedicarboxylic anhydride;

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

K+ sp non-aq ? 100% U 1971TGa (80101) 486
K(KSCN+L)=-0.25
K(2KSCN+L)=0.95

Medium: CH3CN

C12H6O12 H6L Mellitic acid (7400)
Benzenehexacarboxylic acid; (C(COOH))6

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

K+ ISE R4N.X 25°C 0 C I K1=3.42 1996RSb (80112) 487
B(NaHL)=10.31
B(NaH2L)=16.41
B(NaH3L)=20.93
B(NaH4L)=23.66

B(K2L)=4.65, B(K2HL)=12.36, B(K2H2L)=17.60, B(K2H3L)=20.93

B(K3L)=7.35, B(K3HL)=13.10, B(K4L)=7.33. I=0-3 M Et4NI etc.

C12H16O4 L CAS 25887-95-6 (686)
2,3-Benzo-1,4,7,10-tetraoxacyclododeca-2-ene;

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

K+ cal non-aq 25°C 100% U H K1=1.76 1989SSd (81673) 488
Medium: CH3CN

K+ cal non-aq 25°C 100% U H K1=1.76 B2=2.84 1988SSc (81674) 489
Medium: MeCN

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

K+ oth R4N.X 25°C 0.50M U K1=1.56 1973CSa (82310) 490
Method: polarimetry. Medium: Me4NCl

C12H20O4P2 L CAS 82154-47-0 (2915)
1,2-Di((2-dimethylphosphinyl)methoxy)benzene; C6H4(OCH2PO(CH3)2)2

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

K+ con non-aq 25°C 100% U K1=2.54 1982YSa (82641) 491
Medium: tetrahydrofuran+CHCl3 4:1(vol); M is 2,4-dinitrophenolate

C12H20O8 L CAS 62796-84-3 (2141)
1,4,7,10,13,16-Hexaoxacyclooctadecane-2,6-dione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	cal	alc/w	25°C	100%	U	H	K1=2.79	1980BMa (82652)	492
Medium: MeOH. DH=-24.6 kJ mol ⁻¹ .									

K+	cal	alc/w	25°C	100%	U	H	K1=2.79	1980LIb (82653)	493
Medium: MeOH. DH=-24.6 kJ mol ⁻¹ .									

K+	cal	alc/w	25°C	100%	U	H	K1=2.79	1977ILa (82654)	494
Medium: MeOH. DH(K1)=-24.6 kJ mol ⁻¹									

C12H20O8 L CAS 62796-83-4 (611)
 2,11-Dione-18-crown-6, 1,4,7,10,13,16-hexaoxacyclooctadecan-2,6-dione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	alc/w	25°C	100%	U		K1=2.70	1982MKa (82660)	495
Medium: MeOH									

C12H22O2 HL CAS 93269-15-9 (1250)
 2,2,4,6,6-Pentamethyl-3,5-heptanedione; (CH₃)₃C.CO.CH(CH₃).CO.C(CH₃)₃

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	oth	diox/w	25°C	75%	U		K1=3.58 B2=7.22	1979MMa (82858)	496

C12H22O7 L 2-Oxa18-crown-6 CAS 73349-23-2 (610)
 1,4,7,10,13,16-Hexaoxacyclooctadecan-2-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	alc/w	25°C	100%	U		K1=4.18	1982MKa (82862)	497
Medium: MeOH									

C12H23NO5 L (6793)
 10-Methoxycarbonylethyl-1,4,7-trioxa-10-azacyclododecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	cal	alc/w	25°C	100%	U	H		1990KMb (82945)	498
Medium: MeOH. DH=-13.1 kJ mol ⁻¹									

C12H24N2O6 L CAS 57721-99-0 (2508)
 1,14-Diacetamido-3,6,9,12-tetraoxatetradecane; (CH₂.O.CH₂.CH₂.O.CH₂.CH₂.CO.NH₂)₂

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	alc/w	25°C	100%	U		K1=1.17	1975CJa (83052)	499
Medium: MeOH									

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
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K+		EMF alc/w	25°C	100%	A		K1=1.15	1971FRa (83138)	500
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Medium: MeOH

 C12H24O5S L Thia-18-crown-6 CAS 52559-79-2 (2263)
 1-Thia-4,7,10,13,16-pentaoxacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+		cal alc/w	25°C	100%	U	H	K1=3.61	1980LIa (83155)	501
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Medium: MeOH. DH=-37.7 kJ mol⁻¹.

 C12H24O6 L 18-Crown-6 CAS 17455-13-9 (577)
 1,4,7,10,13,16-Hexaoxacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+		cal R4N.X	25°C	0.10M	C	TIH	K1=2.04	2004WTa (83372)	502
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Medium: 0.1 M Et4NCl. Also data for 0.043-0.759 mol fraction acetonitrile/H2O, and for 20 and 30 C. DH(K1)=-26.2 kJ mol⁻¹, DS(K1)=-48.8 J K⁻¹ mol⁻¹.

K+		EMF alc/w	25°C	100%	C		K1=5.06	2004ZTa (83373)	503
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Medium: 100% methanol, 0.05 M Bu4NClO4. Method: Ag electrode, competition with Ag⁺ ion.

K+		ISE alc/w	25°C	100%	C	IH R	K1=6.11	2003ADa (83374)	504
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IUPAC Recommended. Medium: 0-0.1 M various. DH(K1)=-55.3 kJ mol⁻¹
 In H2O: K1=2.05, DH(K1)=-25.0. In PC K1=6.2, DH(K1)=-46

K+		dis oth/un	25°C	dil	C			2002KCa (83375)	505
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KL extracted from Li acetate buffer into benzene in the presence of bromocresol green, HA. K(K+L(org))+A=KLA(org))=6.68.

K+		ISE mixed	25°C	0.8M	U	TI	K1=3.63	2002ZRa (83376)	506
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in H2O K1=1.64
 Medium: 0.8 mass parts n-Propanol in H2O; for 0.2 m.p. PrOH/H2O K1=2.15;
 for 0.6 m. p. PrOH/H2O K1=2.75; K-selective electrode; also data for 45 C

K+		gl mixed	25°C	1.0M	U	I	K1=5.65	2001ZKb (83377)	507
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in 100% H2O K1=2.04
 Medium: 1.0 mass parts CH3CN;
 for 0.6 m.p. CH3CN/H2O K1=3.41; for 0.2 m.p. K1=2.41

K+		sp non-aq	25°C	100%	C		K1=4.8	2000KBb (83378)	508
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Medium: MeCN. Method: electrospray ionization mass spectrometry.

K+	dis non-aq	25°C	100%	U	K1=11.21	2000Ksa (83379)	509
Medium: 1,2-dichloroethane							

K+	oth oth/un	25°C		U	K1=1.90	2000MTa (83380)	510
					K(KL+picrate)=0.41		
Method: capillary zone electrophoresis.							
Medium: 0.005 M H3BO3/Me4NOH, pH 9.2.							

K+	con non-aq	25°C	100%	C TIH	K1=6.31	1999Rmb (83381)	511
Medium: 100% MeOH. Data for 15-55 C. Also data for DMF/MeOH mixtures.							
DH(K1)=-56.0 kJ mol ⁻¹ , DS(K1)=-67.9 J K ⁻¹ mol ⁻¹ . In 100% DMF, K1=4.28.							

K+	cal non-aq	25°C	100%	C H	K1=4.47	1999Wba (83382)	512
Medium: N,N-dimethylformamide. DH(K1)=-38.1 kJ mol ⁻¹ .							

K+	gl mixed	25°C	20%	U TI	K1=2.33	1998KBa (83383)	513
Medium: 20% w/w acetone/H2O. In 40% K1=2.95; in 60% K1=3.50;							
In 80%, K1=4.36. Also data for 10, 15, 35 and 40 C							

K+	ISE alc/w	25°C		C TI	K1=3.86	1998KBb (83384)	514
Medium 60% mass MeOH in H2O; also for 0% K1=2.10; for 100% K1=6.43							
Method: gl. electrode, reversible to K+; for 55 C, 60% K1=3.26;							

K+	ISE alc/w	25°C	100%	U I	K1=6.22	1998SSf (83385)	515
Medium: 100% MeOH, 0.05 M Et4NI.							

K+	dis non-aq	25°C	100%	C I		1998TKa (83386)	516
					K(K+A+L(org))=KAL(org))=6.78		
Method: Extraction from aqueous phase (I<0.03, pH 10.6-11.8) into							
dichloromethane. Data for many non-aqueous phases. HA is picric acid.							

K+	cal non-aq	25°C	100%	C	K1=6.11	1997DZa (83387)	517
Medium: benzonitrile. DH(K1)=-54.70 kJ mol ⁻¹ , DS(K1)=-66.5 J K ⁻¹ mol ⁻¹ .							

K+	oth non-aq	15°C	100%	U T H	K1=4.70	1997EKa (83388)	518
Medium: CH3CN. Also data for H2O/CH3CN mixtures. For 40% CH3CN w/w K1=3.14;							
for 100% H2O: K1=2.17							

K+	con non-aq	25°C	100%	C T H	K1=5.72	1997TAa (83389)	519
Medium: acetonitrile. DH(K1)=-43.6 kJ mol ⁻¹ , DS(K1)=-36.6 J K ⁻¹ mol ⁻¹ .							
Data for 10-25 C.							

K+	cal R4N.X	25°C	0.10M	C H T	K1=2.27	1996BCh (83390)	520
Medium: 0.10 M Et4NClO4. DH(K1)=-15.4 kJ mol ⁻¹ .							

K+	EMF alc/w	25°C		U TIH	K1=3.80	1996DBa (83391)	521
					K1=2.04 (100%H2O)		
80% mass 2-propanol /H2O; also for T=10 C K1=3.86; for T=45 C K1=3.73							

K+	ISE R4N.X	25°C	0.03M	U H	K1=1.98	1996SSb (83392)	522

Method: K-selective electrode; in 0.025 M Me₄NCl
DH₁=-24.7 kJ/mol

K+ ISE non-aq 25°C 0.03M U H K₁=4.92 1996SSb (83393) 523
Method: K-selective electrode; Medium: 0.025 M Me₄NCl in isopropanol
DH₁=-68.1 kJ/mol

K+ ISE non-aq 25°C 0.03M U H K₁=5.52 1996SSb (83394) 524
Method: K-selective electrode; Medium: 0.025 M Me₄NCl in MeCN
DH₁=-15.9 kJ/mol

K+ ISE non-aq 25°C 0.03M U H K₁=4.19 1996SSb (83395) 525
Medium: 0.025 M Me₄NCl in N,N-dimethylformamide
Method: K-selective electrode; DH₁=-36.8 kJ/mol

K+ ISE non-aq 25°C 0.03M U H K₁=3.24 1996SSb (83396) 526
Medium: 0.025 M Me₄NCl in hexamethylphosphoric triamide
Method: K-selective electrode; DH₁=-37.4 kJ/mol

K+ ISE non-aq 25°C 0.03M U H K₁=3.35 1996SSb (83397) 527
Medium: 0.025 M Me₄NCl in DMSO
Method: K-selective electrode; DH₁=-27.6 kJ/mol

K+ ISE mixed 25°C 0.03M U IH K₁=2.47 1996SSb (83398) 528
Medium: 0.025 M Me₄NCl in H₂O/dioxane 2:8 v/v; for 8:2 K₁=4.21
Method: K-selective electrode; DH₁=-24.7 kJ/mol

K+ vlt non-aq 25°C 100% C K₁=9.3 1995KTb (83399) 529
Method: ion transfer polarography. Medium: nitrobenzene, 0.05 M
tetrabutylammonium tetraphenylborate.

K+ cal alc/w 25°C 80% C H K₁=4.70 1995KZa (83400) 530
Medium: 80% v/v CH₃OH/H₂O. DH(K₁)=-45.3 kJ mol⁻¹, DS(K₁)=-62.1 J K⁻¹ mol⁻¹

K+ cal non-aq 25°C 100% U IH T K₁=5.73 1995OKb (83401) 531
Medium: Acetonitrile, 0.1 M Et₄NClO₄. DH(K₁)=-17 kJ mol⁻¹
In propylene carbonate K₁=6.24, DH(K₁)=-47

K+ cal KCl 25°C 0.00 C T H K₁=2.06 1995WIa (83402) 532
Method: isothermal flow calorimetry. Measurements at 1.52 MPa. Data for
50-125 C. Medium: 0.005 m KCl. DH(K₁)=-26.0 kJ mol⁻¹, DS(K₁)=-48 J K⁻¹ m⁻¹

K+ cal non-aq 25°C 100% M H K₁=5.89 1994BCd (83403) 533
Medium: acetone. DH(K₁)=-50.4 kJ mol⁻¹, TDS=-15.4

K+ cal non-aq 25°C 100% U H T K₁=4.21 199400a (83404) 534
Medium: DMF, 0.1 M Et₄NClO₄. DH(K₁)=-38.8 kJ mol⁻¹, DS=-50 J K⁻¹ mol⁻¹

K+ dis non-aq 25°C 100% U 1993INa (83405) 535
B(KPL)=6.20

K is the equilibrium constant for extraction of the metal picrate (P) into CH₂Cl₂. For extraction from D₂O, B=6.38

K+ EMF oth/un 25°C 0.05M M K1=6.15 1992BUb (83406) 536
K1=6.29 (by calorimetric competitive titration)

K+ cal R4N.X 25°C 0.10M C H K1=2.04 19920Ia (83407) 537
DH(K1)=-26.3 kJ mol⁻¹, DS=-49 J K⁻¹ mol⁻¹

K+ cal none 45°C 0.0 U H K1=1.77 1992V0a (83408) 538
DH(K1)=-22.3 kJ mol⁻¹, DS=-36.1 J K⁻¹ mol⁻¹

K+ ix none 25°C 0.0 U I K1=1.8 1991BMb (83409) 539
Ligand bound to silica gel. In MeOH:K=3.8, in EtOH:K=4.0, in acetone, K=4.0

K+ nmr oth/un 30°C dil C K1=2.470 B2= 5.64 1991ERa (83410) 540
B(K2L2)=9.435
B(K2L3)=12.474
B(K3L3)=16.889

Medium: D₂O. Method: 13C nmr.

K+ ISE alc/w 25°C 70% C K1=3.71 B2= 5.71 1991GTa (83411) 541
Medium: 70% v/v MeOH/H₂O, 0.10 M Bu₄NI. Method of corresponding solutions.

K+ ix alc/w RT 50% C K1=3.38 1990MBb (83412) 542
Medium: 50% v/v MeOH/H₂O.

K+ con non-aq 25°C 100% C M K1=6.013 1990SAb (83413) 543
K(KSCN+L)=4.33
K(KL+SCN)=-0.947

Medium: propylene carbonate.

K+ oth non-aq 25°C 100% C K1=4.65 1989BBh (83414) 544
Method: FABMS. Medium: glycerol.

K+ ISE non-aq 25°C 100% M H K1=6.08 1988BUa (83415) 545
Medium: propylene carbonate, 0.05 M (CH₃CH₂)₄NClO₄. DH(K1)=-45.4 kJ mol⁻¹;
DS(K1)=-36.6 J K⁻¹ mol⁻¹

K+ cal non-aq 25°C 100% C H K1=5.72 1988BUb (83416) 546
Medium: acetonitrile. DH(K1)=-9.9 kJ mol⁻¹, DS(K1)=75.8 J K⁻¹ mol⁻¹.

K+ ISE alc/w 25°C 90% U K1=5.50 1987KHa (83417) 547
Medium: 90% w/w MeOH/H₂O

K+ ix KCl 25°C 0.05M C K1=2.03 1987MGb (83418) 548
Medium: KCl/HCl.

K+ con none 25°C 0.0 C T H K1=2.034 1985TAa (83419) 549
Data for 10-45 C. DH(K1)=-25.01 kJ mol⁻¹, DS(K1)=-44.34 J K⁻¹ mol⁻¹.

K+	ISE non-aq	25°C	100%	M		K1=6.02	1984NMb (83420)	550
Medium: MeOH.								
K+	oth oth/un	RT	0.01M	C		K1=2.02	1984STb (83421)	551
Method: isotachophoresis. Medium: 0.01 M Bu4NCl or 0.01 M Tris.								
K+	ISE alc/w	25°C	100%	U		K1=6.08	1983GGa (83422)	552
Medium: MeOH								
K+	con alc/w	25°C	100%	U		K1=6.20	1983LSa (83423)	553
K+	sol non-aq	20°C	100%	C		K1=5.70	1983SLa (83424)	554
Medium: CHCl3								
K+	cal alc/w	25°C	90%	U	IH	K1=5.35	1982HLA (83425)	555
Medium: 90% MeOH. DH=-49.28 kJ mol ⁻¹ , DS=-18.7 J K ⁻¹ mol ⁻¹								
K+	ISE alc/w	25°C	100%	U		K1=6.02	1982MKa (83426)	556
Medium: MeOH								
K+	gl alc/w	25°C	100%	M	H T	K1=6.18	1982MRa (83427)	557
Medium: MeOH. DH(K1)=-53.1 kJ mol ⁻¹								
K+	ISE alc/w	25°C	100%	C		K1=5.93	1981PTa (83428)	558
Medium: MeOH								
K+	sp diox/w	25°C	100%	U	M		1981SSd (83429)	559
						K(K(Picrate)+L)=6.0		
K+	cal alc/w	25°C	100%	U	H	K1=6.06	1980BMA (83430)	560
Medium: MeOH. DH=-56.1 kJ mol ⁻¹ .								
K+	cal alc/w	25°C	100%	U	H T	K1=6.06	1980LIa (83431)	561
Medium: MeOH. DH=-56.1 kJ mol ⁻¹ .								
K+	ISE alc/w	25°C	90%	C		K1=5.23	1980LVb (83432)	562
Method: K ion selective glass electrode. Medium: 90% v/v MeOH/H2O, 0.10 M Me4NBr. Also data for MeNH3 ⁺ , EtNH3 ⁺ and C6H5.(CH2)2NH3 ⁺ cations.								
K+	dis non-aq	25°C	100%	U		K1=6.2	1980TYa (83433)	563
Medium: propylene carbonate								
K+	oth alc/w	25°C	100%	U		K1=6.15	1980WJa (83434)	564
Method: fluorimetry in CH3OH								
K+	EMF oth/un	25°C	var	C	T	K1=2.05	1979HRa (83435)	565
Method: ISE based on cation exchange membrane. Medium: aqueous, containing 0.06-0.25 m ligand.								

K+ oth KCl 25°C var U H K1=2.04 1979JLa (83436) 566
From heat capacity measurements, 0.02 - 0.4 M KCl. DH(K1)=-26 kJ mol-1

K+ cal alc/w 25°C 100% U H K1=6.05 1977ILa (83437) 567
Medium: MeOH. DH(K1)=-56.1 kJ mol-1

K+ cal alc/w 25°C 70% U H K1=4.33 1976ITa (83438) 568
Medium: 70% w/w MeOH/H2O. DH(K1)=-40.5 kJ mol-1.

K+ cal oth/un 25°C 100% U H T K1=2.03 1976ITb (83439) 569
DH=-26.0 kJ mol-1

K+ kin none 25°C 0.0 U K1=3.4 1976Lfa (83440) 570

K+ ISE alc/w 25°C 100% A K1=6.10 1971FRa (83441) 571
Medium: MeOH. In H2O: K1=2.06

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

K+ cal alc/w 25°C 100% U IH K1=3.78 1998SSf (83705) 572
Medium: 100% MeOH, 0,05 M Et4NI. DH(K1)=-22.0 kJ mol-1

K+ ISE alc/w 25°C 100% A K1=3.90 1971FRa (83706) 573
Medium: MeOH

C12H26NO2P L (7849)
N,N-Diethylcarbamoylmethyl-(dipropylphosphineoxide);

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

K+ con non-aq 25°C C K1=2.5 1999ESa (83719) 574
In tetrahydrofuran; alkali metal is used as 2,4-dinitrophenolate

C12H26N2O4 L (6933)
1,4-Diaza-7,10,13,16-tetraoxacyclooctadecane;

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

K+ cal alc/w 25°C 100% U H K1=2.31 1994IZa (83731) 575
Medium: MeOH. DH(K1)=-28.9 kJ mol-1, DS(K1)=-52.7 J K-1 mol-1

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

K+ ISE alc/w 25°C 100% U I K1=1.76 1998SSf (83846) 576

Medium: 100% MeOH, 0,05 M Et4NI. Many other crown ethers studied

K+ cal non-aq 25°C 100% M H K1=3.85 1994BCd (83847) 577
Medium: acetone. DH(K1)=-16.1 kJ mol⁻¹, TDS=5.8

K+ sp non-aq 20°C 100% U K1=2.82 1992PSa (83848) 578
Medium: DMF, 0.01 M Me4NI

K+ ISE non-aq 25°C 100% C K1=<2 1989MGa (83849) 579
Medium: DMF, 0.10 M Et4NClO4

K+ ISE non-aq 25°C 100% M H K1=4.43 1988BUa (83850) 580
Medium: propylene carbonate, 0.05 M (CH3CH2)4NClO4. DH(K1)=-21.9 kJ mol⁻¹;
DS(K1)=11.0 J K⁻¹ mol⁻¹

K+ cal non-aq 25°C 100% U H K1=4.13 1986BUb (83851) 581
In CH3CN. DH=-15.3 kJ mol⁻¹

K+ cal alc/w 25°C 100% U H K1=1.83 1986BUd (83852) 582
In MeOH. DH=-4.7 kJ mol⁻¹

K+ sol non-aq 20°C 100% C K1=5.11 1983SLa (83853) 583
Medium: CHCl3

K+ con non-aq 25°C 100% U K1=4.32 1980KMb (83854) 584
Medium: MeCN

K+ ISE alc/w 25°C 100% A K1=2.04 1971FRa (83855) 585
Medium: MeOH

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

K+ con non-aq 25°C 100% U K1=4.1 1993EVa (84001) 586
Medium: THF+CHCl3 (4:1 vol). Also data for other solvents

K+ cal oth/un 25°C 0.05M M K1=2.07 1992BUb (84002) 587
K1=2.40 (by conductivity)

K+ cal mixed 25°C 90% U IH K1=1.95 1982HLA (84003) 588
Medium: 90% MeOH. DH=-29.3 kJ mol⁻¹, DS=-18.2 J K⁻¹ mol⁻¹

K+ ISE alc/w 25°C 100% U K1=2.20 1975CJa (84004) 589
Medium: MeOH

K+ ISE alc/w 25°C 100% A K1=2.20 1971FRa (84005) 590
Medium: MeOH

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
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K+		EMF non-aq	25°C	100%	C			K1=3.23	1997WWa (84087)	591
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Medium: MeOH, 0.05M Et4NClO4.

Method: Ag/Ag+ electrode; by competition with Ag+.

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
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K+	gl	NaClO4	25°C	0.20M	U			K1=0.8	1980KKb (84336)	592
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C12H32N4O12P4 H8L DOTPH CAS 91987-74-5 (229)
1,4,7,10-Tetraazacyclododecane-N,N',N'',N'''-tetramethylenephosphonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+	gl	R4N.X	25°C	0.10M	M				1990DSa (84412)	593
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B(KHL)=15.98

B(KH2L)=27.49

B(KH3L)=36.36

B(KH4L)=43.79

Medium: Me4NN03

C13H20N2O8 H4L CAS 123064-92-6 (7929)
trans-1,3-Cyclopentanediaminotetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+	gl	KCl	25°C	1.0M	U			K1=0.90	1989CMb (86122)	594
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C13H20O5 L (2511)
1-Hydroxy-2-(1,4,7,10-tetraoxaundecyl)benzene; HO.C6H4.O.(CH2.CH2.O)3.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+	ISE	alc/w	25°C	100%	U			K1=1.45	1975CJa (86148)	595
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Medium: MeOH

C13H22O8 L CAS 58484-46-1 (2140)
1,5,8,11,14,17-Hexaoxacyclononadecane-2,4-dione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+	kin	alc/w	?	76%	U	I		K1=1.91	1991HHb (86377)	596
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Medium: 76% w/w EtOH/H2O. Also data for 65, 54 and 39% w/w ethanol/H2O:

K1=1.69, 1.49 and 1.11 respectively.

K+ cal alc/w 25°C 100% U H K1=2.55 1980LIb (86378) 597
Medium: MeOH. DH=-33.1 kJ mol⁻¹.

K+ cal alc/w 25°C 100% U H K1=2.55 1977ILa (86379) 598
Medium: MeOH. DH(K1)=-33.1 kJ mol⁻¹

C13H24O7 L CAS 76377-06-5 (612)
3-Methyl-11,4,7,10,13,16-hexaoxacyclooctadecan-2-one, 3-Methyl-2-one-18-crown-6;

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

K+ ISE alc/w 25°C 100% U K1=4.05 1982MKa (86426) 599
Medium: MeOH

C13H26O5 L (8408)
1,4,7,10,13-Pentaoxacyclooctadecane;

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

K+ cal non-aq 25°C 0.05M U K1=2.79 1996RSc (86463) 600
Medium: 0.05 M Et4NI in MeOH; by K-selective electrode K1=2.64
DH(K1)=-25.3 kJ mol⁻¹. In 0.05 M Et4NI in H2O K1=1.31

K+ cal non-aq 25°C 0.05M U K1=2.82 1996RSc (86464) 601
Medium: 0.05 M Et4NI in MeCN. DH(K1)=-9.0 kJ mol⁻¹

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

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

K+ con none 25°C 0.0 C K1=0.1 2001KMb (86473) 602

K+ con non-aq 25°C 100% C I K1=3.13 1992TFa (86474) 603
Medium: acetonitrile. In propylene carbonate, K1=2.89.

K+ con alc/w 25°C 100% U K1=2.54 1991IOa (86475) 604
Medium: MeOH

C13H26O6 L 19-Crown-6 CAS 55471-27-7 (8943)
1,4,7,10,13,16-Hexaoxacyclononadecane;

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

K+ con non-aq 25°C 100% C I K1=4.62 2000TMb (86496) 605
Medium: CH3CN. In other media, K1=4.49 (propylene carbonate), 4.21 (MeOH),
2.60 (DMF), 2.01 (DMSO).

K+ con oth/un 25°C dil C K1=1.27 1999TMa (86497) 606
Self medium (KCl).

C13H26O7 L CAS 77887-91-3 (1662)
1,4,7,10,13,16-Hexaoxacyclononadecan-12-ol, Hydroxy-19-crown-6

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

K+ ISE alc/w 25°C 100% U K1=4.03 1983IKa (86507) 607

C13H27NO5 L (8611)
16-Methyl-1,4,7,10,13-Pentaoxa-16-azacyclooctadecane;

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

K+ ISE alc/w 25°C 100% U H K1=5.46 1998SSf (86509) 608
Medium: 100% MeOH, 0.05 M Et4NI

C14H8O3 L CAS 6050-13-1 (5026)
2,2'-Biphenyldicarboxylic anhydride; (diphenic anhydride)

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

K+ sp non-aq ? 100% U 1971TGa (86631) 609

K(KSCN+L)=-0.19

K(2KSCN+L)=0.91

Medium: CH3CN

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

K+ dis non-aq 24°C 100% C 2002MRd (88271) 610

K(K+A+L)=5.90

Medium: CDCl3. HA is picric acid.

K+ dis none 25°C dil C I M 2002THb (88272) 611

K(KL+A)=0.71

K(K+A+L(org))=KAL(org))=3.73

HA is picric acid. Data for several aryl and alkyl solvents.

Method: extraction of metal picrate into dichloromethane/L.

K+ con non-aq 25°C 100% C K1=4.46 B2= 8.66 2000ICa (88273) 612

Medium: nitromethane.

K+ con non-aq 25°C 100% C H K1=2.87 B2= 4.11 1999WBa (88274) 613

Medium: N,N-dimethylformamide. By calorimetry: DH(K1)=-19.8 kJ mol⁻¹,
DH(K2)=-27.3 kJ mol⁻¹.

K+	vlt non-aq	25°C	100%	C	I	K1=4.2	1999WKb (88275)	614
Medium: acetonitrile, 0.10 M Et4NClO4. Also data for TMS, propylene carbonate, acetone, formamide, DMF, DMA, DMSO, MeOH, EtOH.								
K+	dis oth/un	25°C	0	U		K1=2.87	19940Ua (88276)	615
K+	ISE alc/w	?	100%	U		K1=2.73 B2=6.13	1992CLb (88277)	616
Medium: MeOH								
K+	ISE alc/w	25°C	100%	C		K1=2.88 B2= 6.03	1992PTa (88278)	617
Method: Na ion selective electrode. Medium: methanol, 1-5 mM KBr. Data for 4,5-dibromo-, 4,5-dimethoxy- and 4,5-dibutoxybenzo-15-crown-5.								
K+	ISE mixed	25°C	50%	C		K1=2.0 B2= 4.60	1991LMc (88279)	618
Method: K ion selective glass electrode. Medium: 50% w/w MeOH/DMF.								
K+	cal non-aq	25°C	100%	U	H	K1=3.58	1989SSd (88280)	619
Medium: CH3CN								
K+	cal non-aq	25°C	100%	C	H	K1=4.17	1988BUb (88281)	620
Medium: acetonitrile. DH(K1)=-23.4 kJ mol ⁻¹ , DS(K1)=1.0 J K ⁻¹ mol ⁻¹ .								
K+	con non-aq	25°C	100%	C	I	K1=2.49	1988TKb (88282)	621
Medium: MeCN. In propylene carbonate K1=2.78; in MeOH 2.71								
K+	con non-aq	25°C	100%	C	T H	K1=3.24	1988TMb (88283)	622
Medium: acetonitrile. Data for 15-35 C. Anion: tetraphenylborate. DH(K1)=-24.5 kJ mol ⁻¹ , DS(K1)=-20.0 J K ⁻¹ mol ⁻¹ .								
K+	sp non-aq	22°C	100%	U		K1=5.90	1987CCc (88284)	623
In deuteriochloroform								
K+	ISE alc/w	25°C	90%	U		K1=2.63	1987KHa (88285)	624
Medium: 90% w/w MeOH/H2O								
K+	con non-aq	25°C	100%	C	I	K1=2.96 B2= 6.16	1987ZBb (88286)	625
Medium: MeOH. In 70% w/w MeOH/H2O, K1=1.97, K2=2.40.								
K+	sp mixed	25°C	20%	U	I	K1=0.81	1986GSa (88287)	626
In 0.015 M Et4N.Cl, 20% CH3CN/H2O. In 40%, K1=1.34; 60%, K1=2.00; 80%, K1=2.88; 100% CH3CN, K1=4.27.								
K+	cal alc/w	25°C	?	C		K1=1.50 B2=6.24	1986LWa (88288)	627
K+	ISE alc/w	25°C	100%	C		K1=3.05 B2=6.43	1985ZFa (88289)	628
K+	con non-aq	25°C	100%	U	H	K1=2.78	1982TAa (88290)	629
Medium: propylene carbonate								
K+	ISE alc/w	25°C	100%	C		K1=2.8 B2=5.95	1981PTa (88291)	630

Medium: MeOH

C14H2005 HL CAS 65112-35-8 (6061)

3,6,9,12-Tetraoxabicyclo[12.3.1]octadeca-1(18),14,16-trien-18-ol;

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

K+ cal alc/w 25°C 100% U H K1=1.26 1987ZBa (88388) 631

Medium: MeOH. DH=-12.5 kJ mol⁻¹; DS=-17.8.

C14H22N208 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

K+ gl KCl 25°C 1.00M U K1=0.18 1984MFa (88695) 632

K+ oth R4N.X 25°C 0.50M U K1=1.83 1971CSa (88696) 633

K(K+HL)=0.78

Method: polarimetry. Medium: Me4NOH

K+ gl oth/un 25°C 0.10M U K1=1.52 1970CSa (88697) 634

Medium: CsNO3

C14H2408 L CAS 96813-83-1 (2271)

1,4,7,10,13,16-Hexaoxacycloeicos-17,20-dione;

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

K+ cal alc/w 25°C 100% U H K1=1.94 1980LIb (90043) 635

Medium: MeOH. DH=-23.0 kJ mol⁻¹.

C14H2408S L CAS 63689-67-8 (2274)

1,4,7,10,13,16-Hexaoxa-19-thia-cycloheeneicos-17,21-dione;

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

K+ cal alc/w 25°C 100% U H K1=2.09 1980LIb (90047) 636

Medium: MeOH. DH=-16.1 kJ mol⁻¹.

C14H2409 L CAS 63689-61-2 (2273)

1,4,7,10,13,16,19-Heptaoxacycloheeneicosa-17,21-dione;

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

K+ cal alc/w 25°C 100% U H K1=2.32 1980LIb (90057) 637

Medium: MeOH. DH=-27.0 kJ mol⁻¹.

C14H24010 HL 18-6A2 CAS 76871-57-3 (5407)

1,2-Bis-carboxy-18-crown-6;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	alc/w	25°C	90%	U		K1=6.17 B(KHL)=12.0	1984FWa (90061)	638

Medium: 90% v/v MeOH/H2O, 0.05 M R4NX

C14H25N3O7 H3L (5397)
1-Oxa-4,7,10-triazacyclododecane-4,7,10-triethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	R4N.X	25°C	0.10M	U		K1=2.78	1988ADa (90087)	639

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
K+	gl	R4N.X	25°C	0.10M	C		K1=1.69	1987DDb (90193)	640

C14H26N2O8 H2L (6658)
1,4,10,13-Tetraoxa-7,16-diaza-2,3-dicarboxycyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	R4N.X	25°C	0.10M	U		K1=2.00	1990AFa (90222)	641

C14H26O5 L CAS 17454-48-7 (5039)
Cyclohexyl-15-crown-5, 2,3-Cyclohexyl-1,4,7,10,13-pentaoxacyclopentadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE non-aq		25°C	100%	M	IH	K1=3.70 B2=6.90	1988BUa (90270)	642

Medium: propylene carbonate (also CH3CN), 0.05 M (CH3CH2)4NClO4.

DH(K1)=-26.2, DH(K2)=-20.1 kJ mol⁻¹; DS(K1)=-17.4, DS(K2)=-6.37 J K⁻¹ mol⁻¹

K+	ISE alc/w		25°C	100%	A		K1=3.58 B2=5.46	1971FRa (90271)	643
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Medium: MeOH. In H2O: K1=0.6

C14H26O7 L CAS 83410-59-7 (613)
3,3-Dimethyl-1,4,7,10,13,16-hexaoxacyclooctadecan-2-one,
3,3-Dimethyl-2-one-18-crown-6;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE alc/w		25°C	100%	U		K1=3.99	1982MKa (90274)	644

Medium: MeOH

C14H28N2O4 L Cryptand 2,1,1 CAS 31250-06-3 (836)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K	values	Reference	ExptNo
K+	cal	non-aq	25°C	100%	C	H				1999WBa (90373)	645
Medium: N,N-dimethylformamide. DH(K1)=-3.4 kJ mol ⁻¹ .											
K+	gl	R4N.X	25°C	0.05M	C	H		K1=2.7		1996BCh (90374)	646
Medium: 0.05 M Et4NC104. By calorimetry: K1=2.5, DH(K1)=-0.9 kJ mol ⁻¹ .											
K+	cal	non-aq	25°C	100%	M	H		K1=2.47		1994BCd (90375)	647
Medium: acetone. DH(K1)=-15.8 kJ mol ⁻¹ , TDS=-1.8											
K+	sp	non-aq	20°C	100%	U			K1=2.3		1992PSa (90376)	648
Medium: DMF, 0.01 M Me4NI											
K+	ISE	non-aq	25°C	100%	M	IH		K1=3.49	B2=5.92	1988BUa (90377)	649
Medium: propylene carbonate (also CH3CN), 0.05 M (CH3CH2)4NC104. DH(K1)=-30.0, DH(K2)=-5.0 kJ mol ⁻¹ ; DS(K1)=-33.9, DS(K2)=29.5 J K ⁻¹ mol ⁻¹											
K+	cal	non-aq	25°C	100%	U	H		K1=3.50		1986BUB (90378)	650
In CH3CN. DH=-29.3 kJ mol ⁻¹											
K+	cal	alc/w	25°C	100%	U	H		K1=2.36		1986BUD (90379)	651
In MeOH. DH=-23.2 kJ mol ⁻¹											
K+	ISE	non-aq	25°C	100%	C	I		K1=3.22		1985CKa (90380)	652
Medium: propylenecarbonate. In DMF K1=1.51											
K+	ISE	non-aq	25°C	100%	U			K1=2.84		1981CRa (90381)	653
Medium: MeCN. In DMF: K1<2.5; in DMSO: <2.0; in EtOH: <2.6; in NMP: 2.44											
K+	ISE	non-aq	25°C	100%	U			K1=3.3		1980CRa (90382)	654
Medium: Propylene carbonate											
K+	EMF	non-aq	25°C	100%	C			K1=<2.0		1979BLb (90383)	655
Method: Ag electrode; competition with Ag+. Medium: MeOH, 0.05 M Me4NC104.											
K+	gl	R4N.X	25°C	0.05M	C	I		K1=<2.0		1975LSc (90384)	656
In 95% MeOH: K1=2.26; 100%: 2.3											

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	R4N.X	25°C	0.05M	U	I	K1=<2	1991LSb (90461)	657
Medium: 0.05 M Et4NClO4. In MeCN: K1=7.2; DMF: K1=3.2									

C14H28N2O7 L (2509)
1,17-Diacetamido-3,6,9,12,15-pentaoxaheptadecane; O((CH2.CH2.O)2.CH2.CH2.CO.NH2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	ISE	alc/w	25°C	100%	U		K1=1.89	1975CJa (90492)	658
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Medium: MeOH

C14H28O7 L 21-Crown-7 CAS 33089-36-0 (2264)

1,4,7,10,13,16,19-Heptaoxacycloheicosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	sol	non-aq	25°C	100%	C		K1=4.60	1999KCa (90523)	659
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Medium: acetonitrile.

K+	ISE	alc/w	25°C	100%	U		K1=4.35	1983GGa (90524)	660
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Medium: MeOH

K+	cal	alc/w	25°C	100%	U	H	K1=4.22	1980LIa (90525)	661
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Medium: MeOH. DH=-35.9 kJ mol⁻¹.

K+	ISE	alc/w	25°C	100%	A		K1=4.41	1971FRa (90526)	662
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Medium: MeOH

C14H30N2O2P L (2094)

P-(N,N-Diethylamidocarbonyl)methyl-P,P-dibutylphosphine oxide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	con	non-aq	25°C		C		K1=2.6	1999ESa (90552)	663
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In tetrahydrofuran; alkali metal is used as 2,4-dinitrophenolate

K+	con	non-aq	25°C	100%	U		K1=2.35	1988YKa (90553)	664
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Medium: tetrahydrofuran

C14H30N2O4 L CAS 85726-93-8 (644)

4,10-Dimethyloxyethylidene-1,7-dioxy-4,10-diazacyclododecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	sol	non-aq	20°C	100%	C		K1=3.97	1983SLa (90561)	665
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Medium: CHCl₃

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
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K+	gl	alc/w	25°C	95%	C		K1=4.55	2004KVa (90577)	666
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Medium: 95% MeOH/H₂O, 0.01 M Et₄NClO₄.

K+ ISE alc/w 25°C 100% U I K1=5.18 1998SSf (90578) 667
Medium: 100% MeOH, 0.05 M Et₄NI. Many other crown ethers studied

K+ ISE alc/w 25°C 90% C K1=4.10 1980LVb (90579) 668
Method: K ion selective glass electrode. Medium: 90% v/v MeOH/H₂O, 0.10 M Me₄NBr. Also data for MeNH₃⁺, EtNH₃⁺ and C₆H₅.(CH₂)₂NH₃⁺ cations.

K+ gl alc/w 25°C 93% U K1=3.30 1978WVa (90580) 669
Medium: 93% MeOH/H₂O

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
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K+ ISE non-aq 25°C 100% U K1=3.08 1993RPa (90629) 670
Medium: dimethylformamide, 0.05 M Et₄NClO₄. By competition with Ag⁺.

C14H30N2O5 L (6929)
N,N'-Bis(hydroxyethyl)-1,4-diaza-7,10,13-trioxacyclopentadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+ cal alc/w 25°C 90% U H K1=2.43 1994IZa (90638) 671
Medium: 90% v/v MeOH/H₂O. DH(K₁)=-33.0 kJ mol⁻¹,
DS(K₁)=-64.1 J K⁻¹ mol⁻¹

C14H30O7 L CAS 1072-40-8 (2499)
2,5,8,11,14,17,20-Heptaioxaheneicosane; CH₃.O.(CH₂.CH₂.O)₆.CH₃

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+ dis non-aq 25°C 100% C K1=8.32 1998KSc (90694) 672
Medium: 1,2-dichloroethane.

K+ con non-aq 25°C 100% U K1=4.7 1993EVa (90695) 673
Medium: THF+CHCl₃ (4:1 vol). Also data for other solvents

K+ ISE alc/w 25°C 100% U K1=2.55 1975CJa (90696) 674
Medium: MeOH

C15H12O2 HL Diphenylacac CAS 120-46-7 (362)
1,3-Diphenylpropane-1,3-dione, Dibenzoylmethane; C₆H₅.CO.CH₂.CO.C₆H₅

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+ gl alc/w 25°C 100% U K1=1.6 1965LIa (91550) 675
Medium: MeOH, 0.1 M KI


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K+          gl  diox/w 30°C 75% U          K1=3.67          1954FUa (91551) 676
*****
C15H18N07Cl          L          CAS 71022-76-9 (2322)
19-Chloro-3,6,9,12,15-pentaoxa-21-azabicyclo[15.3.1]heneicosa-1(21),17,19-teiene-2,
16-dione;

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values          Reference ExptNo
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K+          cal alc/w 25°C 100% U  H      K1=4.73          1980BMa (91993) 677
Medium: MeOH. DH=-33.3 kJ mol-1.

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C15H19N07          L          CAS 64397-58-4 (2170)
3,6,9,12,15-Pentaoxa-21-azabicyclo[15.3.1]heneicosa-1(21),17,19-triene-2,16-dione;

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values          Reference ExptNo
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K+          cal alc/w 25°C 100% U  H      K1=4.66          1981BBb (92117) 678
Medium: MeOH. DH(K1)=-39.0 kJ mol-1

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K+          cal alc/w 25°C 100% U  H      K1=4.66          1980BMa (92118) 679
Medium: MeOH. DH=-38.9 kJ mol-1.

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K+          cal alc/w 25°C 100% U  H      K1=4.66          1980LIb (92119) 680
Medium: MeOH. DH=-38.9 kJ mol-1

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K+          sp  alc/w 25°C 100% U  H      K1=4.66          1977ILc (92120) 681
Medium: Methanol. DH(K1)= -38.9 kJ mol-1

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*****
C15H22O5          L          CAS 65112-33-6 (6058)
18-Methoxy-3,6,9,12-tetraoxabicyclo[12.3.1]octadeca-1(18),14,16-triene;

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values          Reference ExptNo
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K+          cal alc/w 25°C 100% U  H      K1=1.97          1987ZBa (92249) 682
Medium: MeOH. DH=-19.9 kJ mol-1; DS=-29.2. By potentiometry: K1=2.00.

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C15H23N05          L          CAS 53914-89-9 (2262)
3,6,9,12,15-Pentaoxa-21-azabicyclo[15.3.1]heneicosa-1(21),17,19-triene;

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values          Reference ExptNo
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K+          cal alc/w 25°C 100% U  H      K1=5.35          1980BMa (92268) 683
Medium: MeOH. DH=-38.1 kJ mol-1.

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K+          cal alc/w 25°C 100% U  H      K1=5.35          1980LIa (92269) 684
Medium: MeOH. DH=-38.1 kJ mol-1.

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K+          sp  alc/w 25°C 100% U  H      K1=5.35          1977ILc (92270) 685
Medium: Methanol. DH= -38.1 kJ mol-1

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C15H24NO2P L (7846)
N,N-Diethylcarbamoylmethyl-(P-phenyl-P-propylphosphineoxide);

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

K+ con non-aq 25°C C K1=2.4 1999ESa (92328) 686
In tetrahydrofuran; alkali metal is used as 2,4-dinitrophenolate

C15H24O6 HL CAS 57722-03-9 (2353)
1-Hydroxy-2-(1,4,7,10,13-pentaoxatridecyl)benzene; HO.C6H4.0(CH2CH2O)4CH3

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

K+ sp alc/w 25°C 100% U K1=3.40 1981EMb (92343) 687
Medium: MeOH

K+ ISE alc/w 25°C 100% U K1=2.08 1975CJa (92344) 688
Medium: MeOH

C15H26O8 L CAS 96517-83-8 (2272)
1,4,7,10,13,16-Hexaoxacycloheicos-17,21-dione;

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

K+ cal alc/w 25°C 100% U H K1=1.71 1980LIb (92457) 689
Medium: MeOH. DH=-20.5 kJ mol⁻¹.

C15H33N3O3 L CAS 220811-82-5 (7916)
1,4,7-Tris((S)-2-hydroxypropyl)-1,4,7-triazacyclononane;

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

K+ EMF non-aq 25°C 100% U K1=2.28 2001WBa (92574) 690
Medium: DMF, 0.05 M Et4NClO4. Also data for the 1,4,7-tris((S)-2-hydroxy-2-phenylethyl- derivative (K1=1.91). Competition with Ag+.

C15H33N3O3 L CAS 75403-76-8 (8202)
4,6,10-Trimethyl-1,7,13-trioxa-4,10,16-triazacyclooctadecane;

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

K+ ISE alc/w 25°C 90% C K1=3.78 1980LVb (92578) 691
Method: K ion selective glass electrode. Medium: 90% v/v MeOH/H2O, 0.10 M Me4NBr. Also data for MeNH3⁺, EtNH3⁺ and C6H5.(CH2)2NH3⁺ cations.

C15H36NO9P3 L CAS 37909-50-5 (2634)
(N,N-Dimethylamine)methylenetris(phosphonic acid diethyl ester);
(CH3)2N.C(CH2.PO(OC2H5)2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	22°C	100%	U		K1=1.66	1981SKd (92603)	692

Medium: CH3CN

C16H8N6O10 HL CAS 2698-85-9 (5150)
N-(2,4,6-Trinitrobenzo)-2,4-dinitro-1-naphthylamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	dis	oth/un	25°C	var	U		K1=2.62	1972IWb (92633)	693
K+	con	non-aq	25°C	100%	U		K1=1.50 (dry nitrobenzene) K1=1.10 (wet nitrobenzene)	1972IWb (92634)	694

Medium: nitrobenzene.

C16H16O6 H2L (5634)
1-(2-Hydroxyphenyl)-4-(2-carboxymethoxyphenyl)-1,4-dioxabutane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	alc/w	25°C	100%	U		K1=1.55	1981PTb (93715)	695

Medium: MeOH

C16H18O5 H2L (5623)
1,7-bis(2-Hydroxy-phenyl)-1,4,7-trioxaheptane; O(CH2.CH2.O.C6H4.OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	alc/w	25°C	100%	U		K1=1.09	1981PTb (93875)	696

Medium: MeOH

C16H20N3O8F3 L (1041)
2,4-Dinitro-6-trifluoromethylphenyl-aminomethyl-12-crown-4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	mixed	25°C	16%	U		K1=2.93 K(K+HL)=1.33	1984BPa (94083)	697

C16H20O3P2 L CAS 82154-46-9 (2914)
Dimethylphosphinomethyl-diphenylphosphinomethyl-ether; Me2PO.CH2.O.CH2.PO(C6H5)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U		K1=2.22	1982YSa (94098)	698

Medium: tetrahydrofuran+CHCl3 4:1(vol); M is 2,4-dinitrophenolate

C16H22O6 L (6667)

2'-Acetyl-2,3-benzo-1,4,7,10,13-pentaoxacyclopentadeca-2-ene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	ISE	alc/w	?	100%	U			K1=2.83 B2=5.85	1992CLb (94240)	699
Medium: MeOH. Data also for 2'-t-butyl, 2'-(1,1-dibutylethyl), 2'-(1-methyl-1-dodecylethyl) analogues and others										

C16H22O6 HL (6823)
3,6,9,12-Tetraoxabicyclo[12.3.1]octadeca-1(18),14,16-triene-18-ethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	kin	alc/w	25°C	100%	U			K1=1.04	1992CDc (94243)	700
Medium: MeOH. Data also for other related ligands										

C16H23NO8 L CAS 53408-96-1 (1765)
2,3-(4'-Nitrobenzo)-1,4,7,10,13,16-hexaoxacyclooctadeca-2-ene;
4'-Nitrobenzo-18-crown-6

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U			K1=4.80	1976UHa (94267)	701
Medium: acetone										

C16H24O5 L (2245)
1,3-Benzo-18-crown-5, 1,3-Benzo-5,8,11,14,17-pentaoxacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	dis	non-aq	25°C	100%	U	H			1979KLa (94342)	702
K(K(picrate)+L)=5.03										
Medium: CHCl3										

K+	dis	non-aq	24°C	100%	C				1977MTc (94343)	703
K(KA+L)=5.04										
Method: extraction of metal picrate (A) from H2O into CDCl3 containing L.										
Data for the 5'-bromo, 5'-t-butyl, 5'-methoxy and 5'-cyanobenzo-derivs										

C16H24O5	L	AN(MOE)2E						CAS 60232-72-6 (2246)		
18-Methoxy-16-methyl-3,6,9,12-tetraoxabicyclo[12.3.1]octadeca-1(18),14,16-triene;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	dis	non-aq	25°C	100%	U	H			1979KLa (94353)	704
K(K(picrate)+L)=4.32										
Medium: CHCl3										

C16H24O5 L CAS 75507-20-9 (605)
Benzyloxymethyl-1,4,7,10-tetraoxacyclododecane, Benzyloxymethyl-12-crown-4;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	ISE	alc/w	25°C	100%	U			K1=1.42 B2=2.71	1982MYc	(94359) 705
Medium: MeOH										

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
K+	oth	KCl	25°C	0.05M	C			K1=1.68	2002KTa	(94400) 706
Method: capillary electrophoresis. Medium: 0.03-0.06 M KCl.										
By conductivity in 0.001-0.004 M KCl, K1=1.664.										

K+	dis	NaClO4	25°C	0.1M	C	I		K(KL+ClO4)=-0.49	2002TYa	(94401) 707
Extraction of NaClO4 with L into dichloromethane.										
K(K+L(org)+ClO4=KLC1O4(org))=2.95. K(KL+ClO4=KLC1O4(org))=3.73.										

K+	con	non-aq	25°C	100%	C			K1=>6	2000ICa	(94402) 708
Medium: nitromethane.										

K+	dis	non-aq	25°C	100%	U			K1=10.16	2000KSa	(94403) 709
Medium: 1,2-dichloroethane										

K+	oth	alc/w	25°C	3%	U	M		K(KL+phenolate)=0.33 K(KL+o-nitrophenolate)=0.54 K(KL+m-nitrophenolate)=0.68 K(KL+p-nitrophenolate)=0.89	2000MTa	(94404) 710
Method: CZE. Medium: 3% v/v EtOH/H2O. K(KL+2,4-dinitrophenolate)=1.39, K(KL+picrate)=1.49, K(KL+SCN)=0.82, K(KL+ClO4)=0.68										

K+	oth	alc/w	35°C	3.0%	C			K1=1.73	1999MTd	(94405) 711
Method: capillary zone electrophoresis. Medium: 3% v/v EtOH/H2O, 0.005 M phosphate buffer, pH 7.0										

K+	cal	non-aq	25°C	100%	C	H		K1=3.63	1999WBa	(94406) 712
Medium: N,N-dimethylformamide. DH(K1)=-32.6 kJ mol-1.										

K+	dis	oth/un	25°C	0	U			K1=4.76	1994OUa	(94407) 713

K+	dis	oth/un	25°C	0.01M	U	M		K(K(picrate)+L)=3.12	1992TSb	(94408) 714

K+	con	none	20°C	0.0	C	T H		K1=1.80	1990TAa	(94409) 715
Data for 15-32 C. At 15 C, K1=1.84; at 30 C, K1=1.685										
At 25 C, DH(K1)=-18.1 kJ mol-1, DS(K1)=-27.5 J K-1 mol-1.										

K+	con	none	25°C	0.0	U	K1=1.744	1989TKa (94410)	716
K1=1.79 by potentiometry using an ion selective electrode								

K+	sp	non-aq	22°C	100%	U	K1=7.20	1987CCc (94411)	717
In deuteriochloroform								

K+	ISE	alc/w	25°C	90%	U	K1=4.75	1987KHa (94412)	718
Medium: 90% w/w MeOH/H2O								

K+	cal	non-aq	25°C	100%	C H	K1=5.29	1986ICa (94413)	719
Medium: MeOH. DH(K1)=-44.85 kJ mol ⁻¹ , DS(K1)=-49.0 J K ⁻¹ mol ⁻¹ .								

K+	cal	alc/w	25°C	80%	U H	K1=3.82	1985LWa (94414)	720

K+	sp	diox/w	25°C	0.0	U I	K1=3.11	1983K0a (94415)	721
On PVA. In 24.4% w/w dioxan/H2O. Data given for 9.7-84.6 w/w mixtures.								

K+	sp	mixed	25°C	0.0	U I	K1=2.88	1983K0a (94416)	722
On PVA. In 21.9% w/w tetrahydrofuran/H2O. Data given for 11.1-86.4 w/w mix								

K+	ISE	alc/w	25°C	100%	U	K1=4.9	1982GRc (94417)	723
Medium: MeOH								

K+	sp	alc/w	25°C	100%	U	K1=5.27	1981EMb (94418)	724
Medium: MeOH. By polarography at 22 C: K1=5.22								

K+	ISE	alc/w	25°C	100%	C	K1=5.2	1981PTa (94419)	725
Medium: MeOH								

K+	sp	diox/w	25°C	100%	U M	K(K(Picrate)+L)=5.24	1981SSd (94420)	726

K+	con	non-aq	25°C	100%	U	K1=5.10	1976UHa (94421)	727
Medium: acetone								

C16H24O6 HL CAS 65112-36-9 (6060)								
3,6,9,12,15-Pentaoxabicyclo[15.3.1]heneicosa-1(21),17,19-trien-21-ol;								

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

K+	cal	alc/w	25°C	100%	U H	K1=3.18	1987ZBa (94472)	728
Medium: MeOH. DH=-33.5 kJ mol ⁻¹ ; DS=-51.3. By ISE potentiometry: K1=3.15								

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

K+	gl	R4N.X	25°C	0.10M	M		K1=2.9	1991FGb (94493)
							B(KHL)=7.4	729

Medium: 0.10 M Et4NN03.

K+ ISE oth/un 25°C 0.10M C K1=5.48 1982BLc (94494) 730
Method: K ion selective electrode. Medium: 0.10 M Tris buffer, pH 7.0

K+ ISE R4N.X 25°C 0.10M U K1=5.48 1976BLb (94495) 731
Method: K ion selective electrode. Medium: 0.10 M (Me4N)H2PO4, pH 7.0

C16H25NO4 L (7444)
1-Aza-4,7,10,13-tetraoxa-1-phenyl-cyclopentadecane;

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

K+ nmr alc/w 20°C 100% C K1=9.26 1989GSc (94518) 732
Medium: 100% MeOH. Method: 1H pulsed gradient spin-echo nmr

C16H26NO2P L (2093)
P-(N,N-Diethylamidocarbonyl)methyl(P-phenyl)(P-butyl)phosphine oxide;

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

K+ con non-aq 25°C C K1=2.5 1999ESa (94541) 733
In tetrahydrofuran; alkali metal is used as 2,4-dinitrophenolate

K+ con non-aq 25°C 100% U K1=2.48 1988YKa (94542) 734
Medium: tetrahydrofuran

C16H26N2O12 H4L (6659)
1,4,10,13-Tetraoxa-7,16-diaza-2,3,11,12-tetracarboxycyclooctadecane;

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

K+ gl R4N.X 25°C 0.10M U K1=3.1 1990AFa (94588) 735

C16H26N2O12 H4L CAS 130190-52-2 (6660)
1,4,10,13-Tetraoxa-7,16-diaza-2,3,7,16-tetracarboxycyclooctadecane;

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

K+ gl R4N.X 25°C 0.10M U K1=3.3 1990AFa (94602) 736
B(KHL)=12.7

C16H26O6 L CAS 57721-93-4 (2502)
2,5,8,11,14,17-Hexaoxa-9,10-benzo-octadeca-9-ene; C6H4(O.(CH2.CH2.O)2.CH3)2

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

K+ con none 25°C 0.0 C K1=0.38 1998KTb (94630) 737

K+ ISE alc/w 25°C 100% U K1=2.15 1975CJa (94631) 738

Medium: MeOH

C16H28N4O8 H4L DOTA CAS 60239-18-1 (1017)

1,4,7,10-Tetraazacyclododecane-1,4,7,10-tetraethanoic acid;

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

K+ gl KCl 25°C 0.10M C K1=1.5 1991CMb (94907) 739

K+ gl R4N.X 25°C 0.10M C K1=1.64 1982DSa (94908) 740

C16H30N2O8 H2L CAS 72912-01-7 (1568)

1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-N,N'-diethanoic acid;

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

K+ gl R4N.X 25°C 0.10M U K1=3.91 1983CRb (95043) 741

C16H30O6 L CAS 83410-56-4 (614)

3-Hexyl-1,4,7,10,13-pentaoxacyclopentadecan-2-one, 3-Hexyl-2-one-15-crown-5;

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

K+ ISE alc/w 25°C 100% U K1=1.90 1982MKa (95096) 742

Medium: MeOH

C16H30O6 L CAS 17454-53-4 (5148)

Cyclohexyl-18-crown-6;

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

K+ ISE oth/un 25°C dil A I K1=1.90 1971FRa (95100) 743

In MeOH: K1=5.89

C16H30O7 L CAS 94618-63-0 (8714)

1,9-Dimethyl-2,5,8,11,14,17,20-heptaoxabicyclo[7.6.6]heneicosane;

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

K+ ISE non-aq 25°C 100% M K1=2.66 1984NMb (95104) 744

Medium: MeOH.

C16H32N2O4 L Cryptand 1,2,1H CAS 119017-36-6 (6587)

4,7,14,20-Tetraoxa-1,10-diazabicyclo[8.7.5]docosane;

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

K+ gl alc/w 25°C 95% M K1=2.60 1990LNa (95117) 745

Medium: 95% MeOH, 0.05 M Bu4NBr. For the 9,13-dihydroxy- analogue: K1 < 2

C16H32N2O5 L Cryptand 2,2,1 CAS 31364-42-8 (837)
 1,10-Diaza-4,7,13,16,21-pentaoxabicyclo[8,8,5]tricosane (2,2,1);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	M	M	K1=7.63 K(KL+ClO4)=0.96	1999DSd (95211)	746
Medium: acetonitrile.									
K+	ISE	non-aq	25°C	100%	C	H	K1=6.71	1999WBa (95212)	747
Medium: N,N-dimethylformamide. Method: competitive titration against Ag+, using Ag+ ISE. By calorimetry: DH(K1)=-53.5 kJ mol ⁻¹ .									
K+	gl	R4N.X	25°C	0.05M	C	H	K1=3.8	1996BCh (95213)	748
Medium: 0.05 M Et4NClO4. By calorimetry: K1=4.1, DH(K1)=-36.3 kJ mol ⁻¹ .									
K+	cal	non-aq	25°C	100%	M	H	K1=8.45	1994BCd (95214)	749
Medium: acetone. DH(K1)=-60.7 kJ mol ⁻¹ , TDS=-12.7									
K+	sp	non-aq	20°C	100%	U		K1=6.4	1992PSa (95215)	750
Medium: DMF, 0.01 M Me4NI									
K+	ISE	non-aq	25°C	100%	C		K1=6.1	1989MGa (95216)	751
Medium: DMF, 0.10 M Et4NClO4									
K+	ISE	non-aq	25°C	100%	M	H	K1=9.15	1988BUa (95217)	752
Medium: propylene carbonate, 0.05 M (CH3CH2)4NClO4. DH(K1)=-66.0 kJ mol ⁻¹ ; DS(K1)=-47 J K ⁻¹ mol ⁻¹									
K+	ISE	non-aq	25°C	100%	U	H	K1=9.10	1986BUb (95218)	753
In CH3CN. DH=-64.1 kJ mol ⁻¹									
K+	cal	alc/w	25°C	100%	U	H	K1=8.40	1986BUd (95219)	754
In MeOH. DH=-61.1 kJ mol ⁻¹									
K+	nmr	non-aq	25°C	100%	U		K1=11.22	1986CHc (95220)	755
In CDCl3 saturated with D2O									
K+	ISE	non-aq	25°C	100%	C	I	K1=6.00	1985CKa (95221)	756
Medium: DMSO. In propylenecarbonate K1=8.69; in DMF K1=6.59									
K+	ISE	non-aq	25°C	100%	U		K1=9.8	1980CRa (95222)	757
Medium: Propylene carbonate									
K+	kin	R4N.X	25°C	0.10M	U		K1=4.2	1980GBa (95223)	758
K+	ISE	alc/w	25°C	100%	U		K1=8.54	1978CSb (95224)	759
Medium: MeOH									
K+	cal	R4N.X	25°C	0.06M	C	H		1976KLc (95225)	760

Medium: 0.057 M Me4NBr. Method: flow microcalorimetry.
DH(K1)=-28.5 kJ mol⁻¹, DS(K1)=-20 J K⁻¹ mol⁻¹.

K+ gl R4N.X 25°C 0.05M C I K1=3.95 1975LSc (95226) 761
In 95% MeOH: K1=7.45; 100%: > 8

C16H32N4O4 L (6794)
4,10-Bis(N,N-dimethylethanamido)-1,7-dioxo-4,10-diazacyclododecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+	cal	alc/w	25°C	100%	U	H		K1=3.85	1990KMb (95319)	762
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Medium: MeOH. DH=-25.7 kJ mol⁻¹

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
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K+	gl	NaClO4	25°C	0.50M	U			K1=<2	1981KMb (95334)	763
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C16H32O7 L (6411)
15-(2,5-Dioxahexyl)-15-methyl-1,4,7,10,13-pentaoxacyclohexadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+	con	non-aq	25°C	100%	C	I		K1=3.06	1992TFa (95384)	764
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Medium: acetonitrile. In propylene carbonate, K1=2.88.

K+	con	alc/w	25°C	100%	U			K1=2.43	1991IOa (95385)	765
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Medium: MeOH

C16H32O8 L 24-Crown-8 CAS 33089-37-1 (5149)
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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K+	sol	non-aq	25°C	100%	C			K1=3.94	1999KCa (95396)	766
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Medium: acetonitrile.

K+	ISE	alc/w	25°C	100%	A			K1=3.48	1971FRa (95397)	767
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Medium: MeOH

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
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K+	EMF	alc/w	25°C	100%	U	I		K1=4.69	1994LLa (95415)	768
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Medium: MeOH, 0.05M Et4NClO4. Also data for acetonitrile: K=5.24, PC: K=5.0

DMF: K=3.31 and H2O: K<2. Method: by competition with Ag+.

C16H34N2O6 L (6934)

N,N'-Bis(1-hydroxyethyl)-1,4-diaza-7,10,13,16-tetraoxacyclooctadecane;

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

K+ cal alc/w 25°C 90% U H K1=4.00 1994IZa (95431) 769

Medium: 90% v/v MeOH/H2O. DH(K1)=-23.9 kJ mol⁻¹, DS(K1)=-3.7 J K⁻¹ mol⁻¹

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

K+ ISE non-aq 25°C 100% U K1=4.66 1993RPa (95449) 770

Medium: dimethylformamide, 0.05 M Et4NClO4. By competition with Ag+.

K+ gl NaClO4 25°C 0.50M U K1=<2 1981KMb (95450) 771

C16H34O6 L CAS 57721-92-3 (2501)

2,5,8,15,18,21-Hexaoxadocosane; CH3.O.(CH2.CH2.O)2.(CH2)6.O.(CH2.CH2.O)2.CH3

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

K+ ISE alc/w 25°C 100% U K1=<0.1 1975CJa (95485) 772

Medium: MeOH

C16H34O8 L CAS 1191-91-9 (2500)

2,5,8,11,14,17,20,23-Octaoxatetracosane; CH3.O.(CH2.CH2.O)7.CH3

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

K+ con non-aq 25°C 100% U K1=4.9 1993EVa (95490) 773

Medium: THF+CHCl3 (4:1 vol). Also data for other solvents

K+ ISE alc/w 25°C 100% U K1=2.87 1975CJa (95491) 774

Medium: MeOH

C16H36N4 L CAS 54622-44-5 (147)

5,5,7,12,12,14-Hexamethyl-1,4,8,11-tetraazacyclotetradecane;

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

K+ gl non-aq 25°C 100% U K1=2.3 1986STb (95539) 775

Medium: THF:CHCl3 4:1 v/v. Metal ions as 2,4-dinitrophenolates

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
K+	EMF	non-aq	25°C	100%	U	I	K1=3.40	1996WPa (95572)	776
Medium: acetonitrile, 0.05 M NEt4ClO4. In propylene carbonate K1=5.91									
K+	gl	alc/w	25°C	100%	C	I	K1=2.43	1993TCa (95573)	777
Medium: MeOH, 0.05 M Et4NClO4. In DMF, K1=1.59									

C17H20N4O6 HL Riboflavin CAS 83-88-5 (1438)									
7,8-Dimethyl-10(D-1'-ribityl)isoalloxazine, Vitamin B2, Vitamin H									
K+	sol	oth/un	22°C		U		K1=-0.097	1980LDA (96338)	778
Medium: variable KNO3 content 0.1-2.5 M									

C17H21O5P L (5732)									
Methyldi(2-methoxyphenoxy)methylphosphine oxide; Me.PO(CH2.O.C6H4.OMe)2									
K+	con	non-aq	25°C	100%	U		K1=1.88	1989TKb (96391)	779
Medium: tetrahydrofuran/CHCl3 4:1 (volume)									

C17H23NO6 L (7047)									
5'-(N-Acrylamide)-benzo-15-crown-5; CH2:CH.CO.NH.C14H19O5									
K+	sp	non-aq	25°C	100%	U		K1=9.67	1979KMB (96406)	780
Medium: CHCl3									

C17H24N4O11 L CAS 94616-60-1 (1039)									
2,4,6-Trinitrophenylaminomethyl-15-crown-5									
K+	sp	mixed	25°C	16%	U		K1=2.28 K(K+HL)=1.12	1984BPA (96463)	781

C17H24O7 L CAS 60835-74-7 (1767)									
2,3-(4'-Formylbenzo)-1,4,7,10,13,16-hexaoxacyclooctadeca-2-ene; 4'-Formylbenzo-18-crown-6									
K+	con	non-aq	25°C	100%	U		K1=4.89	1976UHa (96468)	782
Medium: acetone									

C17H26O6 L CAS 32702-28-6 (1768)									

2,3-(4'-Methylbenzo)-1,4,7,10,13,16-hexaoxacyclooctadeca-2-ene;
4'-Methylbenzo-18-crown-6

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	diox/w	25°C	100%	U	M		1981SSd (96514)	783
								K(K(Picrate)+L)=5.73	

K+	ISE	none	25°C	0.0	C		K1=2.04	1980WSb (96515)	784
Method: monovalent ion electrode. Also data for the 4'-polyvinylbenzene-derivative: by spectrophotometry, K1=2.04									

K+	con	non-aq	25°C	100%	U		K1=5.58	1976UHa (96516)	785
Medium: acetone									

C17H26O6 L CAS 99159-90-7 (688)
2,3-Benzo-1,4,7,10,13,16-hexaoxacyclononadeca-2-ene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	non-aq	22°C	100%	U		K1=6.35	1987CCc (96520)	786
In deuteriochloroform									

K+	cal	alc/w	25°C	80%	U	H	K1=3.33	1985LWa (96521)	787
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C17H26O6 L CAS 65112-34-7 (6059)
21-Methoxy-3,6,9,12,15-pentaoxabicyclo[15.3.1]heneicosa-1(21),17,19-triene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	cal	alc/w	25°C	100%	U	H	K1=3.52	1987ZBa (96527)	788
Medium: MeOH. DH=-24.7 kJ mol ⁻¹ ; DS=-15.4. By ISE potentiometry: K1=3.48									

C17H30O6 H2L CAS 159029-04-6 (7605)
15-(Methoxymethoxy)-9,11-dioxo-pentadecanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	alc/w	RT	80%	C		K1=-0.09	1994HWc (96671)	789
Medium: 80%MeOH/H2O. Also data for many analogues.									

C17H34N2O4 L CAS 142565-14-8 (6562)
4,7,13,16-Tetraoxa-1,10-diazabicyclo[8.8.5]tricosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	EMF	non-aq	25°C	100%	C	I	K1=7.56	1993DLb (96743)	790
Medium: propylene carbonate, 0.05 M Et4NClO4. In acetonitrile, K1=6.26.									

K+	gl	R4N.X	25°C	0.05M	C	I	K1=3.41	1992CGb (96744)	791
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Medium: Et4NC104. In MeOH: K1=5.8; in DMF K1=3.85

C17H34N4O4S L CAS 503465-04-1 (9247)
4,7,13,16-Tetraoxa-1,10,21,23-tetraazabicyclo[8.8.7]pentacosane-22-thione;

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

K+ gl alc/w 25°C 95% C K1=3.51 2004KV a (96758) 792

Medium: 95% MeOH/H2O, 0.01 M Et4NC104.

C17H34O5 L CAS 96047-83-5 (606)
Octyloxymethyl-1,4,7,10-Tetraoxacyclododecane, Octyloxymethyl-12-crown-4;

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

K+ ISE alc/w 25°C 100% U K1=1.36 1982MY c (96765) 793

Medium: MeOH

C17H35N04 L (1694)
N-n-Heptanyl-1,4,7,10-tetraoxa-13-azacyclopentadecane;

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

K+ ISE alc/w 25°C 10% U K1=2.29 1986HA a (96768) 794

Medium: 10% MeOH/H2O

C17H38O2P2 L CAS 21245-67-8 (2100)
Methylenebis(dibutylphosphine oxide); Bu2P(O)CH2P(O)Bu2

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

K+ con non-aq 25°C C K1=3.0 1999ES a (96812) 795

In tetrahydrofuran; alkali metal is used as 2,4-dinitrophenolate

C18H18O8 H2L (5631)
1,4-bis(2-Carboxymethoxyphenyl)-1,4-dioxabutane;

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

K+ ISE alc/w 25°C 100% U K1=2.23 1981PT b (97304) 796

Medium: MeOH

C18H20O5 L CAS 14262-60-3 (5616)
2,3:11,12-Dibenzo-1,4,7,10,13-pentaoxacyclopentadeca-2,11-diene;

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

K+ sp non-aq 25°C 100% C K1=>1.74 2002YE a (97475) 797

Method: fluorescence spectroscopy. Medium: acetonitrile.

K+ ISE alc/w 25°C 100% U B2=5.7 1982GRc (97476) 798
Medium: MeOH

K+ ISE alc/w 25°C 100% C K1=2.0 B2=5.21 1981PTa (97477) 799
Medium: MeOH

C18H2007 H2L (5627)
1-(2-Hydroxyphenyl)-7-(2-carboxymethoxyphenyl)-1,4,7-trioxaheptane;

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

K+ ISE alc/w 25°C 100% U K1=2.24 1981PTb (97482) 800
Medium: MeOH

C18H22N02P L (2092)
(N,N-Diethylamidocarbonyl)methyldiphenylphosphine oxide;

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

K+ con non-aq 25°C C K1=2.9 1999ESa (97505) 801
In tetrahydrofuran; alkali metal is used as 2,4-dinitrophenolate

K+ con non-aq 25°C 100% U K1=2.73 1988YKa (97506) 802
Medium: tetrahydrofuran

C18H2205 L (5737)
1,7-Di(2-methoxyphenyl)-1,4,7-trioxaheptane; MeO.C6H4.O.C2H4.O.C2H4.O.C6H4.OMe

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

K+ con non-aq 25°C 100% U K1=2.19 1989TKb (97565) 803
Medium: tetrahydrofuran/CHCl3 4:1 (volume)

C18H2205 L (6668)
2,3-Naphtho-1,4,7,10,13-pentaoxacyclopentadeca-2-ene;

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

K+ ISE alc/w ? 100% U K1=2.71 B2=6.35 1992CLb (97568) 804
Medium: MeOH. Data also for 7'-t-butyl, 7'-(1,1-dibutylethyl) and
7'-(1-methyl-1-dodecylethyl) analogues

K+ dis non-aq 15°C 100% C 1985YIa (97569) 805
K(K+2L(org)+A=KL2A(org))=7.61
K(KL2(org)+A(org)=KL2A)=3.2

Media: H2O/dichloroethane. Analysis by spectrophotometry.

HA: picric acid.

C18H2206 L (5633)
1,4-bis(2-Hydroxyethoxyphenyl)-1,4-dioxabutane;

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+         ISE alc/w  25°C 100%  U          K1=1.74          1981PTb (97572) 806
Medium: MeOH
*****
C18H23N08          L                      CAS 332843-39-7 (8209)
2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-hexaoxacyclooctadecino[2,3-]isoind
ole18,20dione;

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+         sp non-aq  25°C 100%  C          K1=4.4           20010Ya (97575) 807
Medium: methanol. For the N-propyl derivative, K1=4.5.
*****
C18H2607          L                      (5656)
2,3-Acetylbenzo-1,4,7,10,13,16-hexaoxacyclooctadeca-2-ene;

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+         ISE alc/w  25°C 100%  U          K1=4.93          1982GRc (97730) 808
Medium: MeOH
*****
C18H2607          L                      CAS 83410-62-2 (615)
3-Phenyl-1,4,7,10,13,16-hexaoxacyclooctadecan-2-one, 3-Phenyl-2-one-18-crown-6;

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+         ISE alc/w  25°C 100%  U          K1=4.23          1982MKa (97732) 809
Medium: MeOH
*****
C18H27N203F        L                      CAS 173417-90-8 (6571)
23-Fluoro-4,7,20-trioxa-1,10-diazatricyclo[8.7.5.1,12,16]tricos-12,14,16(23)triene
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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K+         EMF non-aq  25°C 100%  C   H      K1=2.52          1999BHa (97747) 810
Medium: MeOH, 0.05 M Et4NClO4. By calorimetry DH(K1)=-3.3 kJ mol-1.
Method: by competition with Ag+, using Ag/Ag+ electrode.
*****
C18H28N203          L                      CAS 154148-31-9 (6510)
4,7,20-Trioxa-1,10-diazatricyclo[8.7.5.1,12,16]tricos-12,14,16(23)-triene;

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+         EMF non-aq  25°C 100%  C   H      K1=2.50          1999BHa (97770) 811
Medium: MeOH, 0.05 M Et4NClO4. By calorimetry DH(K1)=-24.5 kJ mol-1
Method: by competition with Ag+, using Ag/Ag+ electrode
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C18H28O6 L Benzo20-crown-6 (6354)
2,3-Benzo-1,5,8,11,14,18-Hexaoxacos-2-ene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	sp	non-aq	22°C	100%	U		K1=5.28	1987CCc (97835)	812
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In deuteriochloroform

C18H28O6 L CAS 85556-93-0 (642)
2,3-Benzo-8,15-dimethyl-1,4,7,10,13,16-hexaoxacyclooctadeca-2-ene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	con	alc/w	25°C	100%	U		K1=4.39	1983LSa (97841)	813
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Medium: MeOH

C18H28O6 L AN(MOE)20 CAS 60232-73-7 (2247)
21-Methoxy-19-methyl-3,6,9,12,15-pentaoxabicyclo[15.3.1]heneicos-1(21),17,19-triene
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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	dis	non-aq	25°C	100%	U	H		1979KLa (97846)	814
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K(K(picrate)+L)=6.26

Medium: CHCl3

C18H28O6 L CAS 100433-53-6 (607)
Benzyloxymethyl-1,4,7,10,13-pentaoxacyclopentadecane, Benzyloxymethyl-15-crown-5;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	ISE	alc/w	25°C	100%	U		K1=5.2	1982GRc (97850)	815
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Medium: MeOH

K+	ISE	alc/w	25°C	100%	U		K1=3.16 B2=4.43	1982MYc (97851)	816
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Medium: MeOH

C18H28O7 L Benzo21-crown-7 (6355)
2,3-Benzo-1,4,7,10,13,16,19-Heptaoxaheneicos-2-ene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	sp	non-aq	22°C	100%	U		K1=6.81	1987CCc (97856)	817
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In deuteriochloroform

C18H30O6 L (2503)
3,6,9,12,15,18-Hexaoxa-10,11-benzo-eicosa-10-ene; C6H4(0.(CH2.CH2.0)2.C2H5)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ ISE alc/w 25°C 100% U K1=1.78 1975CJa (98115) 818
Medium: MeOH

C18H32O4 L (5234)
2,3:9,10-Dicyclohexyl-1,4,8,11-tetraoxacyclotetradecane;

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

K+ ISE alc/w 25°C 100% A K1=1.30 1971FRa (98270) 819
Medium: MeOH

C18H33NO9 HL 4NH18-C6A CAS 83572-66-1 (5404)
2-Carboxy-3-N-butylformamide-1,4,7,10,13,16-hexaoxacyclooctadecane;

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

K+ gl alc/w 25°C 90% U K1=5.8 1984FWa (98287) 820
B(KHL)=10.7

Medium: 90% v/v MeOH/H2O, 0.05 M R4NX

C18H34O7 L (616)
3-Hexyl-1,4,7,10,13,16-hexaoxacyclooctadecan-2-one, 3-Hexyl-2-one-18-crown-6;

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

K+ ISE alc/w 25°C 100% U K1=3.84 1982MKa (98392) 821
Medium: MeOH

C18H34O8 L CAS 94618-62-9 (8713)
1,11-Dimethyl-3,6,9,12,15,18,20,23-octaoxabicyclo[9.7.6]tetracosane;

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

K+ ISE non-aq 25°C 100% M K1=5.94 1984NMB (98394) 822
Medium: MeOH.

C18H34O9 L CAS 57721-61-7 (2510)
3,6,9,12,15-Pentaoxaheptadecane-1,17-dioic acid diethyl ester

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

K+ ISE alc/w 25°C 100% U K1=1.78 1975CJa (98397) 823
Medium: MeOH

C18H36N2O5 L Cryptand 1,2,2H (6605)
1,10-Diaza-4,7,14,20,23-Pentaoxabicyclo[8.8.7]pentacosane;

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

K+ gl alc/w 25°C 95% M K1=5.11 1990LNa (98406) 824

Medium: 95% MeOH, 0.05 M Bu4NBr. For the 12,16-dihydroxy- analogue: K1=3.40

C18H36N2O5 L Cryptand 2,2,1H CAS 119017-37-7 (6588)
 5,8,15,18,23-Pentaoxa-1,12-diazabicyclo[10.8.5]pentacosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	alc/w	25°C	95%	M		K1=4.14	1990LNa (98414)	825

Medium: 95% MeOH, 0.05 M Bu4NBr. For the 9,16-dihydroxy- analogue: K1=2.44

C18H36N2O6 L Cryptand 3,2,1 (7303)
 1,10-Diaza-4,7,13,16,19,24-hexaoxabicyclo[8,11,5]hexacosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	cal	none	25°C	0	U	IH	K1=4.00	1997Zia (98420)	826

DH(K1)=-32.9 kJ mol⁻¹, DS=-33.9. In 95% v/v MeOH/H2O: K1=8.61, DH(K1)=55.7, DS=-22.1

C18H36N2O6 L Cryptand 2,2,2 CAS 23978-09-8 (514)
 1,10-Diaza-4,7,13,16,21,24-hexaoxabicyclo[8.8.8]hexacosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	M	M	K1=>12	1999DSd (98589)	827

K(KL+ClO4)=0.84

Medium: acetonitrile.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	vlt	non-aq	25°C	100%	C	I	K1=11.3	1999FKb (98590)	828

Medium: acetonitrile, 0.10 M Et4NClO4. Method: cyclic voltammetry.
 Also in: DMF (K1=8.0), DMSO (7.0), MeOH (10.4), acetone (10.4) etc.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	non-aq	25°C	100%	C	H	K1=7.82	1999Wba (98591)	829

Medium: N,N-dimethylformamide. Method: competitive titration against Ag⁺, using Ag⁺ ISE. By calorimetry: DH(K1)=-60.2 kJ mol⁻¹.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	R4N.X	25°C	0.05M	C	H	K1=6.0	1996BCh (98592)	830

Medium: 0.05 M Et4NClO4. By calorimetry: DH(K1)=-52.3 kJ mol⁻¹.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	cal	alc/w	25°C	80%	C	H	K1=8.52	1995KZa (98593)	831

Medium: 80% v/v CH3OH/H2O. DH(K1)=-65.8 kJ mol⁻¹, DS(K1)=-57.7 J K⁻¹ mol⁻¹

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	cal	non-aq	25°C	100%	M	H	K1=10.04	1994BCd (98594)	832

Medium: acetone. DH(K1)=-69.0 kJ mol⁻¹, TDS=-12.0

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	oth/un	25°C	0.05M	M		K1=10.49	1992Bub (98595)	833

K1=9.82 (by potentiometry)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	non-aq	25°C	100%	U		K1=10.50	1992CSc (98596)	834

Ag/Ag⁺ electrode. Medium: MeCN, 0.05 M Bu4NClO4

K+	ISE non-aq	25°C	100%	M	H	K1=11.00	1988BUa (98597)	835
Medium: propylene carbonate, 0.05 M (CH ₃ CH ₂) ₄ NC104. DH(K1)=-72.8 kJ mol ⁻¹ ; DS(K1)=-34.5 J K ⁻¹ mol ⁻¹								
K+	con none	25°C	0.0	U		K1=5.4	1988DSb (98598)	836
K+	ISE non-aq	25°C	100%	U	H	K1=9.56	1986BUb (98599)	837
In CH ₃ CN. DH=-74.0 kJ mol ⁻¹								
K+	cal alc/w	25°C	100%	U	H	K1=9.82	1986BUd (98600)	838
In MeOH. DH=-75.0 kJ mol ⁻¹								
K+	nmr non-aq	25°C	100%	U		K1=13.20	1986CHc (98601)	839
In CDCl ₃ saturated with D ₂ O								
K+	cal non-aq	25°C	100%	U	H		1986DGa (98602)	840
DH1 = -80.3 kJ mol ⁻¹ . Medium: nitromethane								
K+	ISE non-aq	25°C	100%	C	I	K1=7.18	1985CKa (98603)	841
Medium: DMSO. In DMF K1=8.03								
K+	cal non-aq	25°C	100%	U	H		1985DGa (98604)	842
Medium: propylene carbonate. DH1 = -71.9 kJ mol ⁻¹								
K+	cal non-aq	25°C	100%	U	H		1985DGa (98605)	843
Medium: acetonitrile. DH1 = -71.3 kJ mol ⁻¹								
K+	ISE non-aq	25°C	100%	M		K1=12.58	1985DGb (98606)	844
Medium: nitromethane								
K+	cal non-aq	25°C	100%	U	H		1984DGa (98607)	845
Medium: N,N-dimethylformamide. DH1=-54.5 kJ mol ⁻¹ ; DS1=-31.0 J K ⁻¹ mol ⁻¹ .								
K+	cal non-aq	25°C	100%	U	H		1984DGa (98608)	846
Medium: DMSO. DH1=-61.2 kJ mol ⁻¹ ; DS1=-71.5 J K ⁻¹ mol ⁻¹								
K+	gl oth/un	25°C	0.10M	U	I	K1=5.6	1982CFb (98609)	847
In MeCN, mol fraction n: K1=6.5 (n=0.1); 7.1 (n=0.2); 8.1 (0.4); 8.9 (0.6); 9.7 (n=0.7); 10.3 (n=0.9)								
K+	ISE non-aq	25°C	100%	U	I	K1=11.31	1981CRa (98610)	848
Medium: MeCN. In DMSO: K1=7.11; in EtOH: 10.50; in DMF: 7.98; in N-methylpropanoamide: 8.4								
K+	sp diox/w	25°C	100%	U	M		1981SSd (98611)	849
K(K(Picrate)+L)=8.3								
K+	ISE non-aq	25°C	100%	U		K1=11.1	1980CRa (98612)	850
Medium: Propylene carbonate								

K+	kin	R4N.X	25°C	0.10M	U		K1=5.4	1980GBa (98613)	851
K+	con	non-aq	25°C	100%	U		K1=>7	1980KMb (98614)	852
Medium: MeCN									
K+	ISE	alc/w	25°C	100%	U		K1=10.4	1978CSb (98615)	853
Medium: MeOH									
K+	EMF	oth/un	25°C	0.05M	C	I	K1=5.4	1978YTa (98616)	854
Method: competition with Tl+, using Tl amalgam electrode. Electrolyte not stated. In MeOH, 0.05 M: K1=10.8. In DMSO, 0.10 M: K1=6.0									
K+	cal	alc/w	25°C	100%	C			1977ADa (98617)	855
Medium: methanol. DH(K1)=-69.9 kJ mol ⁻¹ . In H ₂ O, DH(K1)=-48.5 kJ mol ⁻¹ .									
K+	cal	R4N.X	25°C	0.06M	C	IH		1976KLc (98618)	856
Medium: 0.057 M Me ₄ NBr. Method: flow microcalorimetry. DH(K1)=-47.7 kJ mol ⁻¹ , DS(K1)=-59 J K ⁻¹ mol ⁻¹ . In 95% (v/v) MeOH/H ₂ O, DH(K1)=-79.5, DS=-80									
K+	gl	R4N.X	25°C	0.10M	C	H	K1=5.58	1975ANa (98619)	857
Medium: Me ₄ NCl. DH(K1)=-46.0 kJ mol ⁻¹ , DS=-48.1									
K+	oth	non-aq	-30°C	100%	U		K1=4.9	1975HBb (98620)	858
Medium: THF									
K+	gl	R4N.X	25°C	0.05M	C	I	K1=5.4	1975LSc (98621)	859
In 95% MeOH: K1=9.75									

C18H36N4O4 L (6795)									
4,10-Bis(N,N-dimethylpropanamido)-1,7-dioxa-4,10-diazacyclododecane;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	cal	alc/w	25°C	100%	U	H	K1=3.03	1990KMb (98781)	860
Medium: MeOH. DH=-30.6 kJ mol ⁻¹									

C18H36O9 L 27-Crown-9 (7043)									
1,4,7,10,13,16,19,22,25-Nonaoxacycloheptacosane;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sol	non-aq	25°C	100%	C		K1=4.55	1999KCa (98806)	861
Medium: acetonitrile.									
K+	cal	alc/w	25°C	100%	U	H	K1=3.47	1993ILa (98807)	862
Medium: MeOH. DH=-43.5 kJ mol ⁻¹ .									

C18H37NO4 L (1721)									
1-Octyl-1-aza-4,7,10,13-tetraoxacyclopentadecane; C ₈ H ₁₇ .N(CH ₂ .CH ₂ .O) ₄ .CH ₂ CH ₂									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	alc/w	25°C	100%	U		K1=2.82	1983MKa (98811)	863

C18H38N2O6		L					CAS 72911-99-0	(1760)	
1-Methyl-10-methyldioxyethyl-1,10-Diaza-4,7,13,16-tetraoxa-cyclooctadecane;									
K+	gl	alc/w	25°C	95%	C		K1=4.80	1975LSc (98819)	864
Medium: 95% MeOH									

C18H38N2O6		L					CAS 85726-94-9	(645)	
4,10-Dimethoxyethoxyethylidene-1,7-dioxo-4,10-diazacyclododecane;									
K+	sol	non-aq	20°C	100%	C		K1=5.22	1983SLa (98821)	865
Medium: CHCl3									

C18H38N2O6		L					CAS 72911-99-0	(649)	
4,13-Bis(2-methoxyethyl)-1,7,10,16-tetraoxo-4,13-diazacyclooctadecane;									
K+	sol	non-aq	20°C	100%	C		K1=5.48	1983SLa (98839)	866
Medium: CHCl3									

C18H38O9		L			Glyme-9		CAS 25990-94-7	(7806)	
2,5,8,11,14,17,20,23,26-Nonaoxaheptacosane;									
K+	dis	non-aq	25°C	100%	C		K1=9.27	1998KSc (98874)	867
Medium: 1,2-dichloroethane.									

C19H22O5		L			Dibz-16-crown-5		CAS 14696-06-1	(655)	
2,3:9,10-Dibenzo-1,4,8,11,14-pentaoxacyclohexadecan-2,9-diene;									
K+	sp	non-aq	25°C	100%	C		K1=3.8	2000KBb (99334)	868
Medium: MeOH. Method: electrospray ionization mass spectrometry.									

C19H23O6P		L					(5731)		
1,2:8,9-Dibenzo-5-methylphosphinyl-3,7,10,13,16-pentaoxacyclohexadeca-1,8-diene;									

K+ con non-aq 25°C 100% U K1=3.29 1989TKb (99345) 869
Medium: tetrahydrofuran/CHCl3 4:1 (volume)

C19H27N07 L (7048)
5'-(N-Acrylamide)-benzo-18-crown-6; CH2:CH.CO.NH.C16H23O6

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

K+ sp non-aq 25°C 100% U K1=7.79 1979KMb (99394) 870
Medium: CHCl3

C19H27N3O6 L (2156)
1,10-Diaza-4,7,13,16,21-tetraoxacyclooctadecane-N,N-2,6-pyridinecarboxaldehyde;

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

K+ sp alc/w 25°C 100% U Keff=5.25 1977TMa (99397) 871

Medium: MeOH

C19H30O6 L (643)
2,3-Benzo-8,11,15-trimethyl-1,4,7,10,13,16-hexaoxacyclooctadeca-2-ene;

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

K+ con alc/w 25°C 100% U K1=3.91 1983LSa (99436) 872
Medium: MeOH

C19H31N3O4 L (2158)
1,10-Diaza-4,7,13,16,21-tetraoxacyclooctadecane-N,N-2,6-methylpyridine;

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

K+ sp alc/w 25°C 100% U Keff=4.78 1977TMa (99446) 873

Medium: MeOH

C19H32N2O4 L (8540)
1-Benzyl-4,7,13,16-tetraoxa-1,10-diazacyclooctadecane;

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

K+ ISE alc/w 25°C 100% U H K1=3.72 B2= 6.16 1998SSf (99452) 874
Medium: 100% MeOH, 0,05 M Et4NI. By calorimetry DH(K1)=-14.1 kJ mol-1
DH(B2)=-26.0. Many other crown ethers studied

C19H38O6 L CAS 83585-72-2 (1675)
2-Octoxymethylene-1,4,7,10,13-pentaoxacyclopentadecane,
2-Octoxymethylene-15-crown-5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	alc/w	25°C	100%	U	I	K1=3.05	1984IEa (99475)	875
Medium: MeOH. In 90% MeOH: K1=2.52									

C19H39N05		L					(1693)		
N-n-Heptanyl-1,4,7,10,13-pentaoxa-16-azacyclooctadecane;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	alc/w	25°C	10%	U		K1=4.17 B2=7.38	1986HAa (99478)	876
Medium: 10% MeOH/H2O									

C19H39N305		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
K+	gl	R4N.X	25°C	0.10M	U		K1=4.2	1978LMa (99492)	877

C20H2204		L					CAS 82645-28-1 (8945)		
o,o'-(Triethyleneglycoldiyl)-(Z)-stilbene;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	C		K1=ca.4.5	2000ICa (99927)	878
Medium: nitromethane.									

C20H2206		L					(6834)		
1,8-Bis(2-Formyphenoxy)-3,6-dioxaoctane; (CH2.0.CH2.CH2.0.C6H4.CHO)2									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U		K1=1.9	1993EVa (99931)	879
Medium: THF+CHCl3 (4:1 vol)									

C20H2209		H2L					(5624)		
1,7-bis(2-Carboxymethoxyphenyl)-1,4,7-trioxaheptane;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	alc/w	25°C	100%	U		K1=3.07	1981PTb (99938)	880
Medium: MeOH									

C20H2405		L					(5620)		
5,9-Dimethyl-2,3:11,12-dibenzo-1,4,7,10,13-pentaoxacyclopentadeca-2,11-diene;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	alc/w	25°C	100%	C		K1=0.9 B2=4.0	1981PTa (100045)	881

Medium: MeOH. Data for racemic ligand. For meso ligand K1=1.4, B2=4.67

C20H24O5 L (5619)

6,8-Dimethyl-2,3:11,12-dibenzo-1,4,7,10,13-pentaoxacyclopentadeca-2,11-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	ISE	alc/w	25°C	100%	C			K1=1.4 B2=4.57	1981PTa (100047)	882

Medium: MeOH. Data for racemic ligand

C20H24O6 L DiBz-18-Crown-6 CAS 14187-32-7 (604)

2,3:11,12-Dibenzo-1,4,7,10,13,16-hexaoxacyclooctadeca-2,11-diene

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	EMF	alc/w	25°C	100%	C			K1=4.86	2004ZTa (100125)	883

Medium: 100% methanol, 0.05 M Bu4NClO4. Method: Ag electrode, competition with Ag+ ion.

K+	oth	KCl	25°C	0.05M	C			K1=1.74	2002KTa (100126)	884
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Method: capillary electrophoresis. Medium: 0.03-0.06 M KCl.

K+	dis	non-aq	24°C	100%	C			K(K+A+L)=7.04	2002MRd (100127)	885
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Medium: CDCl3. HA is picric acid.

K+	con	non-aq	25°C	100%	C			K1=5.39	2000ICa (100128)	886
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Medium: nitromethane.

K+	sp	non-aq	25°C	100%	C			K1=4.9	2000KBb (100129)	887
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Medium: MeOH. Method: electrospray ionization mass spectrometry.

K+	oth	alc/w	25°C	3%	U	M			2000MTa (100130)	888
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K(KL+phenolate)=0.55
K(KL+o-nitrophenolate)=1.01
K(KL+m-nitrophenolate)=0.81
K(KL+p-nitrophenolate)=1.12

Method: CZE. Medium: 3% v/v EtOH/H2O. K(KL+2,4-dinitrophenolate)=1.73, K(KL+picrate)=1.87, K(KL+SCN)=1.40, K(KL+ClO4)=0.60

K+	dis	oth/un	25°C	0.06M	C				2000YYa (100131)	889
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K(KL+A)=1.30
K(K+L(org)+A=KLA(org))=4.99

Method: extraction of metal picrate (0.06 M, pH 12) into dichloromethane/ligand solution. HA: picric acid. Data for many additional solvents.

K+	sp	mixed	25°C		C	TIH		K1=2.66	1999EDa (100132)	890
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In 60 % mass H2O/acetonitrile; For 80% H2O K1=2.37, DH1=-6.4 kJ/mol
For 100% acetonitrile K1=4.50 the same at 35 C: 4.42; 40 C: 4.38

K+ oth alc/w 35°C 3.0% C K1=1.66 1999MTd (100133) 891
 Method: capillary zone electrophoresis. Medium: 3% v/v EtOH/H2O, 0.005 M
 phosphate buffer, pH 7.0

K+ dis non-aq 25°C 100% U K1=9.36 1998KSb (100134) 892
 Medium: 1,2-dichloroethane

K+ oth oth/un 25°C 0.04M C K1=1.67 1998Tia (100135) 893
 K(KL+ClO4)=0.54
 K(KL+picrate)=1.95

Method: capillary electrophoresis.
 Medium: 0.005 M phosphate buffer, pH 7.1, 0.04 M MCl.

K+ sp non-aq 25°C 100% U T H K1=4.50 1997EKa (100136) 894
 Medium: CH3CN. Also data for H2O/CH3CN mixtures

K+ sp mixed 10°C 60% C T H K1=2.97 1997EYa (100137) 895
 Medium: 60% w/w CH3CN/H2O; For 45 C and 60% CH3CN K1=2.66;
 For 80% CH3CN and 10 C K1=3.45; For 45 C and 80% CH3CN K1=3.23

K+ con non-aq 25°C 100% C T H K1=4.78 1997TAa (100138) 896
 Medium: acetonitrile. DH(K1)=-20.1 kJ mol⁻¹, DS(K1)=23.8 J K⁻¹ mol⁻¹.
 Data for 10-25 C.

K+ vlt non-aq 25°C 100% C K1=6.9 1995KTb (100139) 897
 Method: ion transfer polarography. Medium: nitrobenzene, 0.05 M
 tetrabutylammonium tetraphenylborate.

K+ dis oth/un 25°C 0 U K1=4.68 1994OUa (100140) 898

K+ dis non-aq 23°C 100% C K1=6.6 1992HGb (100141) 899
 K(K+A+L(org))=KAL(org))=6.37

Extraction of metal chloride (A) from aqueous solution into nitrobenzene/
 0.01M Bu4NB(Ph)4. Peak potential voltammetry and distribution of 42K.

K+ sp non-aq 25°C 100% U K1=3.17 1991NTa (100142) 900
 Medium: DMF

K+ vlt non-aq 23°C 100% C I K1=4.75 1990LUa (100143) 901
 Medium: MeCN, 0.05 M Bu4NClO4. Data also in DMF (K1=3.15), DMSO (2.60),
 benzonitrile (5.15), propylene carbonate (5.06) and other solvents

K+ vlt non-aq 25°C 100% U K1=9.9 1990SPa (100144) 902
 Medium: 1,2-dichloroethane

K+ cal non-aq 25°C 100% C H K1=4.78 1988BUb (100145) 903
 Medium: acetonitrile. DH(K1)=-18.6 kJ mol⁻¹, DS(K1)=29 J K⁻¹ mol⁻¹.

K+ con non-aq 25°C 100% U K1=4.66 1986STb (100146) 904
 Medium: THF:CHCl3 4:1 v/v. Metal as 2,4-dinitrophenolate

 K+ con mixed 25°C ? U K1=7.16 1984MPa (100147) 905
 Medium: 60%(vol) isopropanol+ 20% H2O + 20% CHCl3

K+ ISE alc/w 25°C 100% C K1=4.8 1981PTa (100148) 906
 Medium: MeOH

K+ vlt non-aq 25°C 100% U I K1=4.70 1978HKc (100149) 907
 Medium: CH3CN, 0.05M Bu4NClO4

K+ nmr non-aq 29°C 100% U K1=3.64 1977SZa (100150) 908
 Medium: DMF

K+ sp alc/w 30°C 96% U K1=0.65 1975DBb (100151) 909

K+ dis non-aq 25°C 100% C T HM 1975SIc (100152) 910
 K(K+A+L(org)=KAL(org))=4.65
 Method: Extraction from H2O into benzene. HA is picric acid. DH(KAL(org))
 =-68.2 kJ mol⁻¹, DS(KAL(org))=-140 J K⁻¹ mol⁻¹.

K+ sol none 25°C 0.0 U I K1=1.67 1975SNa (100153) 911

K+ ISE alc/w 25°C 100% A K1=5.00 1971FRa (100154) 912
 Medium: MeOH

 C20H24O6 L CAS 72011-24-6 (8872)
 2,3:5,6-Dibenzo-1,4,7,10,13,16-hexaoxacyclooctadeca-2,5-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	dis	non-aq	23°C	100%	C		K1=6.4 K(K+A+L(org)=KAL(org))=6.19	1992HGb (100261)	913

Extraction of metal chloride (A) from aqueous solution into nitrobenzene/
 0.01M Bu4NB(Ph)4. Peak potential voltammetry and distribution of 42K.

 C20H24O6 L CAS 14262-61-4 (8871)
 2,3:8,9-Dibenzo-1,4,7,10,13,16-hexaoxacyclooctadeca-2,8-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	non-aq	25°C	100%	C		K1=2.968	2002YEa (100267)	914

Method: fluorescence spectroscopy. Medium: acetonitrile.

K+	dis	non-aq	23°C	100%	C		K1=5.4 K(K+A+L(org)=KAL(org))=6.25	1992HGb (100268)	915
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Extraction of metal chloride (A) from aqueous solution into nitrobenzene/
 0.01M Bu4NB(Ph)4. Peak potential voltammetry and distribution of 42K.

 C20H24O8 H2L (5630)
 1-(2-Hydroxyphenyl)-10-(2-carboxymethoxyphenyl)-1,4,7,10-tetraoxadecane;

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+         ISE a/c/w  25°C 100%  U          K1=2.47          1981PTb (100275) 916
Medium: MeOH
*****
C20H26O6          L                      CAS 84884-14-0 (2236)
2,3-Naphtho-18-crown-6, 2,3-Naphtho-1,4,7,10,13,16-hexaoxacyclooctadeca-2-ene;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+         dis non-aq 25°C 100%  U   H          1979KLa (100346) 917
                        K(K(picrate)+L)=7.93
Medium: CHCl3
*****
C20H26O7          L                      (5626)
1,7-bis(2-Hydroxyethoxyphenyl)-1,4,7-trioxaheptane;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+         ISE a/c/w  25°C 100%  U          K1=2.23          1981PTb (100351) 918
Medium: MeOH
*****
C20H27NO5          L                      (5296)
2,3:11,12-Dibenzo-1,4,7,10,13-pentaoxa-16-azaoctadeca-2,11-diene;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+         ISE a/c/w  25°C 100%  A          K1=3.20          1971FRa (100353) 919
Medium: MeOH
*****
C20H27N2O5Cl       HL                      CAS 199472-61-2 (8623)
5-Chloro-7-(1,4,7,10-tetraoxa-13-azacyclopentadec-13-ylmethyl)-8-quinolinol;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+         cal non-aq 25°C 100%  C   H          1997ZBb (100356) 920
                        K(K+HL)=3.17
Medium: MeOH. DH(K)=-19.4 kJ mol-1, DS(K)=-4.40 J K-1 mol-1.
*****
C20H28N2O4          L                      (5297)
2,3:11,12-Dibenzo-1,4,10,13-tetraoxa-7,16-diazaoctadeca-2,11-diene;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+         ISE a/c/w  25°C 100%  A          K1=1.63          1971FRa (100388) 921
Medium: MeOH
*****
C20H28O7          L                      CAS 123295-30-7 (5571)
14,14-Dimethyl-15,16-(1,4-Benzodioxinic)-1,4,7,10,13-pentaoxacycloheptadeca-15-ene;

```

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	alc/w	25°C	100%	U		K1=1.40	1989MGb (100399)	922
Medium: MeOH									

C20H31N2O4F		L					CAS 173417-87-3	(6461)	
26-Fluoro-4,7,13,16-tetraoxa-1,10-diazatricyclo[8.8.7.1,20,24]hexacosa-20,22,24(26)-triene;									
K+	EMF	non-aq	25°C	100%	C H		K1=6.71	1999BHa (100440)	923
Medium: MeOH, 0.05 M Et4NClO4. By calorimetry DH(K1)=-39.6 kJ mol-1.									
Method: by competition with Ag+, using Ag/Ag+ electrode.									

C20H32N2O4		L					CAS 61696-66-0	(6497)	
4,7,13,16-Tetraoxa-1,10-diazatricyclo[8.8.7.1,20,24]hexacosa-20,22,24(26)-triene;									
K+	EMF	non-aq	25°C	100%	C H		K1=5.56	1999BHa (100457)	924
Medium: MeOH, 0.05 M Et4NClO4. By calorimetry DH(K1)=-41.5 kJ mol-1.									
Method: by competition with Ag+, using Ag/Ag+ electrode.									

C20H32O6		L					CAS 14098-26-1	(5657)	
2,3-tert-Butylbenzo-1,4,7,10,13,16-hexaoxacyclooctadeca-2-ene;									
K+	ISE	alc/w	25°C	100%	U		K1=5.12	1982GRc (100489)	925
Medium: MeOH									

C20H32O7		L			AN(MOEEO)2E		(2248)		
24-Methoxy-22-methyl-3,6,9,12,15,18-hexaoxabicyclo[18.3.1]-tetracosa-1(24),20,22-triene;									
K+	dis	non-aq	25°C	100%	U H			1979KLa (100491)	926
K(K(picrate)+L)=5.26									
Medium: CHCl3									

C20H32O8		L			Benzo24-crown-8		(6356)		
2,3-Benzo-1,4,7,10,13,16,19,22-Octaoxatetracosa-2-ene;									
K+	sp	non-aq	22°C	100%	U		K1=5.96	1987CCc (100496)	927
In deuteriochloroform									

C20H33NO6 L CAS 105495-12-3 (1692)
N-(2-(2-Phenyloxy)ethoxy)ethyl-1,4,7,10-tetraoxa-13-azacyclopentadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	ISE	alc/w	25°C	10%	U			K1=3.64 B2=6.98	1986HAa (100501)	928

Medium: 10% MeOH/H2O

C20H34O8 L (2504)
2,5,8,11,14,17,20,23-Octaoxa-12,13-benzotetracos-12-ene; C6H4(0.(CH2.CH2.0)3.CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	ISE	alc/w	25°C	100%	U			K1=2.83	1975CJa (100525)	929

Medium: MeOH

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
K+	EMF	alc/w	25°C	100%	C			K1=4.96	2004ZTa (100652)	930

Medium: 100% methanol, 0.05 M Bu4NClO4. Method: Ag electrode, competition with Ag+ ion.

K+	dis	non-aq	25°C	100%	U			K1=11.72	2000KSa (100653)	931
----	-----	--------	------	------	---	--	--	----------	------------------	-----

Medium: 1,2-dichloroethane

K+	dis	non-aq	25°C	100%	U			K(K(pic)+L)=K(pic),L)=8.20	1995BSa (100654)	932
----	-----	--------	------	------	---	--	--	----------------------------	------------------	-----

Medium: CHCl3. Data for host-guest associations; pic: picrate. L is a cis-syn-cis and cis-anti-cis mixture. Also data for syn-L (K=8.27) and anti-L(8.18)

K+	cal	non-aq	25°C	100%	C	H		K1=6.19	1988BUb (100655)	933
----	-----	--------	------	------	---	---	--	---------	------------------	-----

Medium: acetonitrile. DH(K1)=-29.6 kJ mol⁻¹, DS(K1)=19 J K⁻¹ mol⁻¹.

K+	con	none	25°C	0.0	C	T	H	K1=5.53	1988TMc (100656)	934
----	-----	------	------	-----	---	---	---	---------	------------------	-----

Data for 15-35 C. DH(K1)=-66.8 kJ mol⁻¹, DS(K1)=-122.8 J K⁻¹ mol⁻¹. Anion is tetraphenyl borate.

K+	con	mixed	25°C	?	U			K1=6.75	1984MPa (100657)	935
----	-----	-------	------	---	---	--	--	---------	------------------	-----

Medium: 20%(vol) isopropanol+ 80% H2O

K+	dis	non-aq	25°C	100%	U	H		K(K(picrate)+L)=8.3	1979KLa (100658)	936
----	-----	--------	------	------	---	---	--	---------------------	------------------	-----

Medium: CHCl3

K+	ISE	oth/un	25°C	dil	A			K1=1.78	1971FRa (100659)	937
----	-----	--------	------	-----	---	--	--	---------	------------------	-----

Isomer B. In MeOH, K1=5.38. For isomer A: K1=2.18; in MeOH: K1=6.01

K+ cal oth/un 40°C 0.0 U T K1=1.50 1971INa (100660) 938
Isomer B. K1(10 C)=1.79, K1(25 C)=1.63. For isomer A: K1=2.15(10 C),
2.02(25 C), 1.91(40 C)

K+ cal oth/un 25°C 0.01M U K1=1.60 1969IRa (100661) 939
Isomer B. For isomer A: K1=2.01

C20H38N2O6 L CAS 178822-46-3 (8615)
6-Methylene-4,8,14,17,22,25-hexaoxa-1,11-diazabicyclo[9.8.8]heptacosane;

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

K+ cal alc/w 25°C 80% C H K1=7.08 1995KZa (100739) 940
Medium: 80% v/v CH3OH/H2O. DH(K1)=-54.1 kJ mol⁻¹, DS(K1)=-46.0 J K⁻¹ mol⁻¹

C20H38O8 L (617)
3-Hexyl-1,4,7,10,13,16,19-heptaioxacycloheneicosan-2-one, 3-Hexyl-2-one-21-crown-7;

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

K+ ISE alc/w 25°C 100% U K1=3.39 1982MKa (100755) 941
Medium: MeOH

C20H38O9 L CAS 94618-61-8 (8712)
1,11-Dimethyl-3,6,9,13,16,19,21,24,27-nonaioxabicyclo[9.9.7]heptacosane;

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

K+ ISE non-aq 25°C 100% M K1=7.06 1984NMB (100758) 942
Medium: MeOH.

C20H40N2O4 L (6625)
1,10-Diaza-4,7,13,16-tetraoxabicyclo[8.8.8]hexacosane;

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

K+ gl non-aq 25°C 100% C I K1=5.09 1992LSc (100775) 943
Medium: MeCN, 0.05 M Et4NClO4. In DMF K1=2.6; in H2O K1<2

C20H40N2O6 L Cryptand 2,2,2H (6606)
1,10-Diaza-4,7,14,17,23,26-Hexaoxabicyclo[10.8.8]octacosane;

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

K+ gl alc/w 25°C 95% M K1=5.47 1990LNa (100785) 944
Medium: 95% MeOH, 0.05 M Bu4NBr. For the 12,19-dihydroxy- analogue: K1=5.13

C20H40N2O6 L Cryptand 3,2,1H (6589)
1,7-Diaza-4,11,14,17,23,26-hexaoxabicyclo[13.8.5]octacosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	alc/w	25°C	95%	M		K1=3.23	1990LNa (100794)	945
Medium: 95% MeOH, 0.05 M Bu4NBr. For the 9,19-dihydroxy- analogue: K1=3.78									

C20H40N2O7		L					CAS 132162-59-5	(8958)	
4,7,10,13,19,22,25-Heptaoxa-1,16-diazabicyclo[14.11.2]nonacosane;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	cal	alc/w	25°C	90%	C H		K1=4.35	1992DJa (100798)	946
Medium: 90% v/v MeOH/H2O. DH(K1)=-63.2 kJ mol ⁻¹ , DS(K1)=-129 J K ⁻¹ mol ⁻¹ .									

C20H40N2O7		L					CAS 147900-71-8	(8617)	
4,7,10,16,19,22,27-Heptaoxa-1,13-diazabicyclo[11.11.5]nonacosane;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	cal	alc/w	25°C	80%	C H		K1=3.99	1995KZa (100801)	947
Medium: 80% v/v CH3OH/H2O. DH(K1)=-32.8 kJ mol ⁻¹ , DS(K1)=-33.6 J K ⁻¹ mol ⁻¹									

C20H40N2O7		L				Cryptand 3,2,2	CAS 31255-22-8	(1763)	
Cryptand 3,2,2									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	alc/w	25°C	95%	C		K1=7.0	1977LSc (100812)	948
Medium: 95% (w/w) MeOH/H2O, 0.1 M Et4NBr.									
K+	cal	R4N.X	25°C	0.06M	C H			1976KLc (100813)	949
Medium: 0.057 M Me4NBr. Method: flow microcalorimetry.									
DH(K1)=-13 kJ mol ⁻¹ , DS(K1)=0 J K ⁻¹ mol ⁻¹ .									
K+	gl	R4N.X	25°C	0.05M	C I		K1=2.2	1975LSc (100814)	950
In 95% MeOH: K1=7.0; 100%: > 7									

C20H40O6		L					CAS 103748-82-9	(1672)	
2-Octoxymethylene-1,4,7,10,13,16-hexaoxacyclooctadecane,									
2-Octoxymethylene-18-crown-6									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	alc/w	25°C	100%	U I		K1=5.39	1984IEa (100848)	951
Medium: MeOH. In 90% MeOH: K1=4.7									

C20H40O10		L				30-Crown-10	(7044)		
1,4,7,10,13,16,19,22,25,28-Decaoxacyclotriacontane;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo

K+ sol non-aq 25°C 100% C K1=4.62 1999KCa (100851) 952
Medium: acetonitrile.

K+ cal alc/w 25°C 100% U H K1=3.98 1993ILa (100852) 953
Medium: MeOH. DH=-48.7 kJ mol⁻¹.

C20H41NO5 L (1714)
N-Octyl-monoaza-18-crown-6

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

K+ ISE alc/w 25°C 100% U K1=4.87 1983MKa (100856) 954

C20H42N2O8 L (6935)
N,N'-Bis(1-hydroxy-2-ethoxyethyl)-1,4-diaza-7,10,13,16-tetraoxacyclooctadecane;

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

K+ cal alc/w 25°C 90% U IH K1=4.28 1994IZa (100871) 955
L=N,N'-Bis(1-Hydroxy-2-ethoxyethyl)-1,4-diaza-7,10,13,16-tetraoxacycloocta-
decane. Medium: 90% v/v MeOH/H₂O. DH(K₁)=-37.1 kJ mol⁻¹. Also in 100% MeOH

C20H42N4O4 L CAS 39678-14-3 (1543)
4,7-Dimethyl-1,4,7,10-tetraaza-13,16,21,24-tetraoxa-bicyclohexacosane;

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

K+ ISE R4N.X 25°C 0.10M U I K1=1.7 1978LMa (100888) 956
In CH₃OH, K₁>5.0

C20H42O5 L CAS 9002-92-0 (8207)
1-Hydroxy-11-oxydodecane-3,6,9-trioxaundecane;

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

K+ dis non-aq 25°C 100% C K1=2.31 1999KKb (100901) 957
Medium: MIBK. Method: distribution of metal picrates in H₂O/MIBK(ligand)
system. Also data for L= HO(CH₂.CH₂.O)_n.(CH₂)₁₁.CH₃, n=6 and 8.

C20H44N4O4 L CAS 102202-74-4 (6041)
1,4,7,10-Tetra-(2-hydroxypropyl)-1,4,7,10-tetraazacyclododecane;

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

K+ EMF non-aq 25°C 100% C I K1=3.20 1997DMd (100927) 958
Method: Ag electrode; competitive titration. Medium: acetonitrile, 0.05 M
Et₄NClO₄. Also data for PC (K₁=5.2), MeOH (3.5), DMF (3.63), H₂O (<2).

C20H44N4O4 L (6730)

1,4,7,10-Tetra-(2-methoxyethyl)-1,4,7,10-tetrazacyclododecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	gl	non-aq	25°C	100%	U	I		K1=6.07	1996SDa (100940)	959
Medium: MeCN, 0.05 M Et4NClO4. In MeOH: K1=3.9, DMF: 3.62, propylene carbonate: 6.7										

K+	gl	R4N.X	25°C	0.10M	C			K1=<2.0	1993SFb (100941)	960
Medium: 0.1 M Et4NClO4.										

C21H22N3O9F3 L CAS 78857-86-0 (1040)
2",4"-Dinitro-6"-trifluoromethyphenyl-4'-aminobenzo-15-crown-5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	sp	mixed	25°C	16%	U			K1=2.11 K(K+HL)=1.41	1984BP a (101199)	961
Medium: 16% MeCN/H2O										

C21H23NO9 L (6799)
2,3-(4'-(4"-Nitrophenoxy carbonyl))benzo-1,4,7,10,13-pentaoxacyclopentadeca-2-ene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	kin	alc/w	25°C	54%	U			K1=0.65	1991HHb (101223)	962
Medium: 54% w/w EtOH/H2O. K1=0.40(39%), 0.60(49%)										

C21H24O3Si3 L CAS 546-45-2 (1286)
Trimethyl-triphenyl-cyclotrisiloxane; ((CH3)(C6H5)SiO)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	con	alc/w	25°C	100%	U			K1=<-0.3	19800Pa (101258)	963
Medium: MeOH, 0.1 M Me4NBr										

C21H24O8 L CAS 78708-41-5 (799)
2,3:9,10-Dibenzo-1,4,8,11,14-pentaoxacyclohexadeca-2,9-diene-6-oxyethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	sp	non-aq	25°C	100%	C			K1=4.9	2000KBb (101265)	964
Medium: MeOH. Method: electrospray ionization mass spectrometry.										

K+	gl	alc/w	25°C	80%	M	IH		K1=3.11	1985AEb (101266)	965
Medium: 80% w/w MeOH/H2O, pH=11. By calorimetry: DH(K1)=-24.8 kJ mol ⁻¹ , DS=-20.4 J K ⁻¹ mol ⁻¹ . At pH=3, K(K+HL)=2.23, DH(K+HL)=-30.5, DS(K+HL)=-59.3.										

C21H26O6 L CAS 88847-18-1 (6847)
Dibenzo-4-methyl-18-crown-6;

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+          sp  non-aq 25°C 100% U          K1=2.90          1991NTa (101286) 966
Medium: DMF. Data also for 4-ethyl, 4-hexyl and 4,13-dihexyl analogues
*****
C21H29N06          L          CAS 83260-79-1 (9010)
2-Methyl-2-(8-quinolyloxy)methyl-15-crown-5;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+          sp  non-aq 25°C 100% C          K1=4.10          2002NMa (101338) 967
Medium: THF, using metal picrate salt.
*****
C21H30O2P2          L          (7851)
P'P'-Diphenyl-P,P-dibutylmethylenediphosphinedioxide;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+          con non-aq 25°C          C          K1=3.2          1999ESa (101384) 968
In tetrahydrofuran; alkali metal is used as 2,4-dinitrophenolate
*****
C21H31O7P3          L          CAS 82154-48-1 (2916)
Methyldi((2-dimethylphosphinylmethoxy)phenoxy)methyl)phosphineoxide;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+          con non-aq 25°C 100% U          K1=3.08          1982YSa (101419) 969
Medium: tetrahydrofuran+CHCl3 4:1(vol); M is 2,4-dinitrophenolate
L=CH3P(O)[CH2OC6H4OCH2P(O)(CH3)2]2
*****
C21H33N07          L          CAS 60835-76-9 (1766)
2,3-(4'(N-Butyl)carboxyamidobenzo)-1,4,7,10,13,16-hexaoxacyclooctadeca-2-ene,
R-18-crown-6
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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+          con non-aq 25°C 100% U          K1=4.75          1976UHa (101422) 970
Medium: acetone
*****
C21H42N4O6S          L          CAS 503465-05-2 (9248)
4,12,18,21,26,29-Hexaoxa-1,7,9,15-tetraazabicyclo[13.8.8]hentriacontane-8-thione;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+          gl  alc/w 25°C 95% C          K1=4.89          2004KVa (101463) 971
Medium: 95% MeOH/H2O, 0.01 M Et4NClO4.
*****
C21H42O7          L          CAS 91318-76-2 (1674)
2-Octyloxyethyleneoxymethylene-1,4,7,10,13-pentaoxacyclopentadecane, R-15-crown-5
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+         ISE a/c/w  25°C 100% U I      K1=3.22  B2=5.63  1984IEa (101477) 972
Medium: MeOH. In 90% MeOH: K1=2.56
*****
C22H20N2O4          L                      CAS 207461-96-9 (8955)
(5Z)-12,13,20,21-Tetrahydrotribenzo[b,f,l][1,8,11,14,4,5]tetraoxadiazacyclohexadeci
ne;

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+         sp non-aq  RT  100% C I      K1=2.55          2000GDa (101695) 973
Medium: acetonitrile. In MeOH, K1=2.2.
*****
C22H24O8          L                      CAS 81279-93-8 (5566)
11,12-(1,4-Benzodioxinic)-2,3-benzo-18-crown-6

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+         gl a/c/w  25°C 100% U      K1=2.15          1989MGB (101916) 974
Data also for various 14,14-disubstituted analogues
*****
C22H25N5O14       L                      CAS 74305-50-3 (2797)
4'-Picrylamino-(2''-nitrobenzo)-18-crown-6

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+         sp oth/un 25°C 0.10M U      K1=1.70          1980NTa (101919) 975
At pH 12.35 in Li4(EDTA)
*****
C22H25O3P         L                      CAS 97745-35-2 (2069)
Adamantyl(diphenoxy)phosphonyl

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+         sol non-aq 25°C 100% U      K1=3.85          1987TCa (101923) 976
Medium: CH2Cl2, 2% MeCN. Metal as picrate
*****
C22H26N4O12       L                      CAS 74044-87-4 (2796)
4'-Picrylaminobenzo-18-crown-6

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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+         sp oth/un 25°C 0.10M U      K1=1.92          1980NTa (101991) 977
K(K+HL)=1.62
At pH 11.5 in Li4(EDTA)
*****
C22H26O5          L                      CAS 160978-39-2 (8944)
o,o'-(Tetraethyleneglycoldiyl)-(Z)-stilbene;

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	C		K1=4.25	2000ICa (101997)	978
Medium: nitromethane.									

C22H26O8		L					(5632)		
1,4-bis(2-Carboxymethoxyphenyl)-1,4-dioxabutane diethyl ester;									
K+	ISE	alc/w	25°C	100%	U		K1=2.09	1981PTb (102001)	979
Medium: MeOH									

C22H26O10		H2L					(5628)		
1,10-bis(2-Carboxymethoxy-phenyl)-1,4,7,10-tetraoxadecane;									
K+	ISE	alc/w	25°C	100%	U		K1=3.21	1981PTb (102008)	980
Medium: MeOH									

C22H28N2O6		L					CAS 449740-17-4 (8937)		
N-(2-Pyridylmethylene)-4-aminobenzo-18-crown-6;									
K+	sp	non-aq	25°C	100%	C	M	K(ZnA2L+K)=4.26	2002YPc (102016)	981
Medium: MeCN, 0.10 M n-Bu4NPF6. A is p-thiocresol.									

C22H28O6		L					CAS 52755-95-0 (5622)		
5,9-Dimethyl-2,3:11,12-dibenzo-18-crown-6									
K+	ISE	alc/w	25°C	100%	C		K1=4.37	1981PTa (102029)	982
Medium: MeOH. Data for racemic ligand. For meso ligand K1=4.13									

C22H28O6		L					CAS 34368-73-5 (5621)		
6,8-Dimethyl-2,3:11,12-dibenzo-18-crown-6									
K+	ISE	alc/w	25°C	100%	C		K1=4.04	1981PTa (102031)	983
Medium: MeOH. Data for racemic ligand. For meso ligand K1=3.42									

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
K+	dis	none	RT	dil	C	M	K1=1.20 K(K+A+L(org))=KAL(org))=4.65	2003AGa (102044)	984

Method: extraction of picrate ion pair into dichloromethane. HA is picric acid.

K+	oth	alc/w	35°C	3.0%	C		K1=1.21	1999MTd (102045)	985
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Method: capillary zone electrophoresis. Medium: 3% v/v EtOH/H₂O, 0.005 M phosphate buffer, pH 7.0

K+	dis	oth/un	25°C	0	U		K1=4.09	19940Ua (102046)	986
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K+	con	non-aq	25°C	100%	U		K1=5.4	1993EVa (102047)	987
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Medium: THF+CHCl₃ (4:1 vol)

K+	cal	non-aq	25°C	100%	C	H	K1=4.19	1986ICa (102048)	988
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Medium: MeOH. DH(K1)=-34.6 kJ mol⁻¹, DS(K1)=-35.9 J K⁻¹ mol⁻¹.

K+	ISE	alc/w	25°C	100%	A		K1=4.30	1971FRa (102049)	989
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Medium: MeOH

C22H28O7 L CAS 133560-78-8 (8962)
 2,3:17,18-Dibenzo-1,4,7,10,13,16,19-heptaoxacycloheptacosane-2,17-diene,
 Dibenzo[21]crown-7;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	non-aq	25°C	100%	C		K1=2.916	2002YEa (102064)	990

Method: fluorescence spectroscopy. Medium: acetonitrile.

K+	sp	non-aq	25°C	100%	C		K1=4.46	2002YEB (102065)	991
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Method: steady state fluorescence spectroscopy. Medium: acetonitrile.

C22H29N3O5 L CAS 75897-28-8 (661)
 4-Dimethylaminophenylazo-benzo-15-crown-5;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	alc/w	25°C	100%	C		K1=3.10 B2=6.84	1985ZFa (102083)	992

C22H30O4P2 L CAS 470454-09-2 (8993)
 4,10-Dibenzyl-1,7-dioxa-4,10-diphosphacyclododecan-4,10-dioxide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	dis	non-aq	24°C	100%	C		K(K+A+L)=5.16	2002MRd (102130)	993

Medium: CDCl₃. HA is picric acid.

C22H30O6 L (2506)
2,5,8,13,16,19-Hexaoxa-9,10:11,12-dibenzoeicosa-9,11-diene;
(-C6H4.O.(CH2.CH2.O)2.CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	alc/w	25°C	100%	U		K1=0.90	1975CJa (102134)	994

Medium: MeOH

C22H31N2O6Cl HL CAS 184647-21-0 (8621)
5-Chloro-2-(1,4,7,10,13-pentaoxa-16-azacyclooctadec-16-ylmethyl)-8-quinolinol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	cal	non-aq	25°C	100%	C	H		1997ZBb (102139)	995

K(K+HL)=5.42

Medium: MeOH. DH(K)=-52.1 kJ mol⁻¹, DS(K)=-71.1 J K⁻¹ mol⁻¹.

C22H31N2O6Cl HL CAS 184647-19-6 (8620)

5-Chloro-7-(1,4,7,10,13-pentaoxa-16-azacyclooctadec-16-ylmethyl)-8-quinolinol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	cal	non-aq	25°C	100%	C	H		1997ZBb (102143)	996

K(K+HL)=4.47

Medium: MeOH. DH(K)=-40.0 kJ mol⁻¹, DS(K)=-48.7 J K⁻¹ mol⁻¹.

C22H32O7P2 L (2078)

1,5-Bis(2-(dimethylphosphinylmethoxy)phenoxy)-3-oxapentane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U		K1=3.93	1989KSa (102206)	997

Medium: tetrahydrofuran/CHCl3 4:1 (vol)

C22H32O8 L CAS 123295-31-8 (5572)
17,17-Dimethyl-18,19-(1,4-Benzodioxinic)-1,4,7,10,13,16-hexaoxacyclocosa-18-ene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	alc/w	25°C	100%	U		K1=2.72	1989MGb (102209)	998

Medium: MeOH

C22H36N2O6 L Bz-Cryptand 222 CAS 31250-18-7 (2269)
5,6-Benzo-4,7,13,16,21,24-hexaoxa-1,10-diazabicyclo[8:8:8]hexacosa-5-ene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	R4N.X	25°C	0.05M	U	H	K1=5.1	1998DBa (102274)	999

Medium: 0.05 M Et4NClO4. By calorimetry: DH(K1)=-38.3 kJ mol⁻¹,

K+ gl oth/un 25°C 0.02M U H K1=4.21 1980CKa (102275)1000
DH=-65.3 kJ mol⁻¹. Alternative method, calorimetry

C22H36O9 L Benzo-27-Crown9 CAS 63144-76-3 (2842)
2,3-Benzo-1,4,7,10,13,16,19,22,25-nonanoxacycloheptacos-2-ene;

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

K+ sp non-aq 22°C 100% U K1=6.26 1987CCc (102299)1001
In deuteriochloroform

C22H37NO7 L CAS 105495-13-4 (1691)
N-(2-(2-Phenyloxy)ethoxy)ethyl-1,4,7,10,13-pentaoxa-16-azacyclooctadecane;

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

K+ ISE a/c/w 25°C 10% U K1=4.78 B2=8.74 1986HAa (102305)1002
Medium: 10% MeOH/H₂O

C22H40O6 L CAS 76993-47-0 (2340)
2,5,8,11,14,17-Hexaoxatricyclo[22.4.0.0(18,23)]octacosane (trans-cis-trans isomer)

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

K+ nmr non-aq 24°C 100% U M 1981BEb (102370)1003
K(K(picrate)+L)=8.6

Medium: CDCl₃

C22H40O7 L (6596)
2,3,11,12,-Dicyclohexano-1,4,7,10,13,16,19-heptaoxacycloheneicosane;
dicyclohexyl-21-crown-7;

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

K+ sol non-aq 25°C 100% C I K1=4.98 1999KCa (102379)1004
Medium: acetonitrile. In propylene carbonate, K1=4.73

C22H44N2O7 L Cryptand 3,2,2H (6607)
1,10-Diaza-4,7,14,17,20,26,29-Heptaoxabicyclo[13.8.8]hentriacontane;

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

K+ gl a/c/w 25°C 95% M K1=5.15 1990LNa (102415)1005
Medium: 95% MeOH, 0.05 M Bu₄NBr. For the 12,22-dihydroxy- analogue: K1=5.63

C22H44N2O8 L Cryptand 4,2,2 (7304)
1,10-Diaza-4,7,13,16,21,24,27,30-octaoxabicyclo[8,8,14]dotricontane;

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

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-----
K+      cal alc/w  25°C  95%  U   H   K1=5.5      1997Z1a (102421)1006
Medium: 95% v/v MeOH/H2O, 0.1 M. DH(K1)=-37.8 kJ mol-1, DS=-21.5 J K-1 mol-1
*****
C22H44N2O8      L      Cryptand 3,3,2  CAS 132162-57-3  (1762)
Cryptand 3,3,2
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+      gl  alc/w  25°C 100%  C   I      K1=6.0      1975LSc (102428)1007
Medium: MeOH
*****
C22H44N6O5S2      L      CAS 503465-08-5  (9241)
9,20,23,28,31-Pentaoxa-1,4,6,12,14,17-hexaazabicyclo[15.8.8]tritriacontane-5,13-dithione;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+      gl  alc/w  25°C  95%  C      K1=3.84      2004KVa (102438)1008
Medium: 95% MeOH/H2O, 0.01 M Et4NClO4.
*****
C22H44O11      L      33-Crown-11      (7045)
1,4,7,10,13,16,19,22,25,28,31-Undecaoxacyclotritriacontane;
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+      cal alc/w  25°C 100%  U   H   K1=3.16      1993ILa (102443)1009
Medium: MeOH. DH=-48.9 kJ mol-1.
*****
C22H45NO4      L      CAS 75006-56-3  (1717)
N-Dodecyl-monoaza-15-crown-5
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+      ISE alc/w  25°C 100%  U   I      K1=2.86      1983MKa (102445)1010
*****
C22H45NO6      L      CAS 75006-58-5  (1720)
N-(Octyl-di(oxyethylene))-monoaza-15-crown-5
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+      ISE alc/w  25°C 100%  U      K1=3.58      1983MKa (102447)1011
*****
C22H46N2O4      L      CAS 69703-24-8  (2449)
N,N'-Bis(2-dimethylpropane)-cyclo-1,10-diaza-4,7,13,16-tetraoxaoctadecane
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
K+      gl  alc/w  25°C  93%  U      K1=2.4      1978WVa (102451)1012
Medium: 93% MeOH/H2O
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 C22H46N2O8 L CAS 85726-96-1 (647)
 4,10-Dimethyloxyethoxyethoxyethylidene-1,7-dioxo-4,10-diazacyclododecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+		sol non-aq	20°C	100%	C		K1=5.46	1983SLa (102454)	1013

Medium: CHCl3

C22H46N2O8 L CAS 85726-97-2 (650)
 4,13-Dimethyloxyethoxyethylidene-1,7,10,16-tetraoxo-4,13-diazaoctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+		sol non-aq	20°C	100%	C		K1=5.63	1983SLa (102457)	1014

Medium: CHCl3

C22H46N4O8 L CAS 61136-93-4 (8201)
 7,9-Dimethyl-4,10,16,22,27-pentaoxa-1,7,13,19-tetraazabicyclo[11.11.5]nonacosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+		gl R4N.X	25°C	0.10M	U		K1=1.3	1982GKc (102460)	1015

Medium: 0.10 M NMe4NO3.

C22H48N6O2 L CAS 39678-22-3 (1542)
 4,7,13,16-Tetramethyl-1,4,7,10,13,16-hexaaza-21,24-dioxabicyclohexacosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+		ISE R4N.X	25°C	0.10M	U	I	K1=1.7	1978LMa (102487)	1016

C23H22N4O4 HL CAS 207800-89-3 (8966)
 19,20,22,23-Tetrahydro-9-methyl-11,7-metheno-7H-dibenzotrioxatetraazacycloeicosin-2
 5-ol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+		sp diox/w	25°C	50%	C	I	K1=0.73	2001INa (102644)	1017

Medium: 50% v/v dioxane/H2O, 3% v/v triethylamine, pH 12. In 50%
 v/v dioxane/H2O with Et4NOH, K1=1.91.

C23H23NO5 L CAS 218619-58-0 (7808)
 Dibenzo-pyridino-18-crown-6;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+		EMF alc/w	25°C	100%	C		K1=4.15	2004ZTa (102658)	1018

Medium: 100% methanol, 0.05 M Bu4NClO4. Method: Ag electrode,
 competition with Ag+ ion.

K+ con non-aq 25°C 100% C T H K1=4.06 1997TAa (102659)1019
Medium: acetonitrile. DH(K1)=-18.6 kJ mol⁻¹, DS(K1)=15.5 J K⁻¹ mol⁻¹.
Data for 10-25 C.

C23H30N2O4 L CAS 361454-16-2 (8960)
N-(Phenylmethylene)-4-(1,4,7,10-tetraoxa-13-azacyclopentadec-13-yl)benzamine;

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

K+ sp non-aq RT 100% C K1=2.40 2001AVa (102750)1020
Method: spectrophotometric titration. Medium: acetonitrile.

C23H32N2O5 L (7368)
9-(2'-Hydroxy-5'-methylbenzyl)-3,6,12,15-Tetraoxa-9,21-diazabicyclo[15.3.1]heneicosatriene;

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

K+ cal alc/w 25°C 100% U H K1=3.53 1997ZBa (102781)1021
Medium: MeOH. Data also for several similar 5'-substituted ligands

C23H32N2O5 L (7369)
9-(2'-Pyridylmethyl)-3,6,12,15-tetraoxa-19-methyl-21-hydroxy-9-azabicyclo[15.3.1]heneicosatriene;

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

K+ cal alc/w 25°C 100% U H K1=3.00 1997ZBa (102785)1022
Medium: MeOH

C23H33N2O6Cl L CAS 184647-23-2 (8622)
5-Chloro-8-methoxy-2-(1,4,7,10,13-pentaoxa-16-azacyclooctadec-16-ylmethyl)-quinoline;

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

K+ cal non-aq 25°C 100% C H K1=5.64 1997ZBb (102795)1023
Medium: MeOH. DH(K)=-45.8 kJ mol⁻¹, DS(K)=-45.6 J K⁻¹ mol⁻¹.

C23H41N2O10 HL CAS 111216-09-2 (5567)
2-Carboxy-3-monopiperidinenitroxide-18-crown-6 derivative;

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

K+ nmr alc/w 25°C 90% U K1=3.8 1987DDa (102835)1024
Medium: 90% MeOH/H₂O

C23H42N2O9 HL CAS 111216-12-7 (5568)
2-Carboxy-3-monopiperidine-18-crown-6 derivative;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	nmr	alc/w	25°C	90%	U		K1=5.0	1987DDa (102840)	1025
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Medium: 90% MeOH/H2O

C23H46O8		L					CAS 91318-80-8 (1673)		
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2-Octyl-di(oxyethylene)-oxymethylene-1,4,7,10,13-pentaoxacyclopentadecane,
R-15-crown-5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	ISE	alc/w	25°C	100%	U I		K1=3.28 B2=5.48	1984IEa (102842)	1026
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Medium: MeOH. In 90% MeOH: K1=2.71

C23H46O8		L					CAS 91318-78-4 (1671)		
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2-Octyl-oxyethylene-oxymethylene-1,4,7,10,13,16-hexaoxacyclooctadecane,
R-18-crown-6

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	ISE	alc/w	25°C	100%	U I		K1=5.64	1984IEa (102844)	1027
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Medium: MeOH. In 90% MeOH: K1=4.8

C24H20B-		HL					CAS 4358-26-3 (2489)		
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Tetraphenylborate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	con	non-aq	25°C	100%	C T		K1=2.38	1999VMa (102895)	1028
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Medium: 2-methoxyethanol. Data for 15-35 C.

K+	sol	none	25°C	0.0	U I			1979LPf (102896)	1029
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Kso(KB(C6H5)4)=-7.33
Method: spectrophotometry. Also data for 10-100% w/w MeOH/H2O.

K+	con	non-aq	25°C	100%	U		K1=0.40	1978CAa (102897)	1030
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Medium: Acetonitrile

K+	con	non-aq	25°C	100%	U		K1=1.02	1976RMa (102898)	1031
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Medium: 3-methylsulfonate

K+	con	non-aq	25°C	100%	U		K1=0.3	1975YKa (102899)	1032
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Medium: MeCN

C24H24N2O4		L					(5741)		
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1,10-Di(8-quinolyl)-1,4,7,10-tetraoxadecane; C9H6N.O.C2H4.O.C2H4.O.C2H4.O.C9H6N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ con non-aq 25°C 100% U K1=5.2 1989BEa (102937)1033
Medium: tetrahydrofuran/CHCl3 4:1 (volume)

C24H24O6 L CAS 99700-19-3 (8873)
2,3:5,6:8,9-Tribenzo-1,4,7,10,13,16-hexaoxacyclooctadeca-2,5,8-triene;

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

K+ dis non-aq 23°C 100% C K1=5.7 1992HGb (102952)1034
Extraction of metal chloride (A) from aqueous solution into nitrobenzene/
0.01M Bu4NB(Ph)4. Peak potential voltammetry and distribution of 42K.

C24H24O6 L TriBz18-Crown-6 (6069)
2,3:8,9:11,12-Tribenzo-1,4,7,10,13,16-hexaoxacyclooctadeca-2,8,11-triene;

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

K+ dis non-aq 23°C 100% C K1=5.4 1992HGb (102958)1035
K(K+A+L(org))=KAL(org))=5.24
Extraction of metal chloride (A) from aqueous solution into nitrobenzene/
0.01M Bu4NB(Ph)4. Peak potential voltammetry and distribution of 42K.

C24H25O7P L (2067)
Phenylphosphonyldibenzo-17-crown-6

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

K+ sol non-aq 25°C 100% U K1=2.89 1987TCa (102964)1036
Medium: CH2Cl2, 2% MeCN

C24H26N2O6 HL (664)
2-Hydroxynaphthylazo-benzo-15-crown-5;

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

K+ ISE alc/w 25°C 100% C K1=3.25 B2=6.98 1985ZFa (102969)1037

C24H30O7 HL (6603)
2-[(7,8,16,17-Tetrahydro-6H,15H-dibenzo[1,4,8,11]tetraoxacyclotetradeca-7-yl)oxy]-hexanoic acid;

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

K+ dis oth/un 25°C ? U K1=1.97 1991BUa (103032)1038

C24H30O8 L CAS 67655-22-5 (8710)
7,8,16,17-Tetrahydro-7,16-(epoxyethanoxyethanoxyethanoxy)-6H,15H-dibenzotetraoxacyclotetradecin;

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

K+ ISE none 25°C 0.0 C K1=5.7 1978PAa (103034)1039
Method: K-sensitive electrode.

C24H3009 L (5625)
1,7-bis(2-Carboxymethoxyphenyl)-1,4,7-trioxaheptane diethylester;

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

K+ ISE alc/w 25°C 100% U K1=2.79 1981PTb (103037)1040
Medium: MeOH

C24H3206 L ANAN(MOE0)2E (2242)
2,3:4,5-Di(1,3-(2-methoxy-5-methylbenzo))-9,12,15,18-tetraoxacyclooctadeca-2,4-dien
e;

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

K+ dis non-aq 25°C 100% U H 1979KLa (103070)1041
K(K(picrate)+L)=7.20

Medium: CHCl3

C24H3206 L AN(MOEOM)2AN (2244)
23,24-Dimethoxy-10,21-dimethyl-3,6,14,17-tetraoxatricyclo-tetracos-1(23),8(24),9,1
1,19,21hexaene

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

K+ dis non-aq 25°C 100% U H 1979KLa (103076)1042
K(K(picrate)+L)=3.59

Medium: CHCl3

C24H3206 L DP(OEOEO)2E CAS 60985-77-5 (2237)
3,4:5,6-Bis(2-methylbenzo)-2,7,10,13,16,19-hexaoxacyclodocosa-3,5-diene;

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

K+ dis non-aq 25°C 100% U H 1979KLa (103082)1043
K(K(picrate)+L)=6.23

Medium: CHCl3

C24H3208 L (5617)
2,3:11,12-Dibenzo-1,4,7,10,13,16,19,22-octaoxacyclotetracos-2,11-diene;

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

K+ oth alc/w 25°C 100% U K1=3.45 1980WAa (103087)1044
Medium: MeOH

C24H3208 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
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K+	dis	none	RT	dil	C	M	K1=0.95 K(K+A+L(org))=KAL(org))=4.52	2003AGa (103130)	1045
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Method: extraction of picrate ion pair into dichloromethane. HA is picric acid.

K+	oth	KCl	25°C	0.05M	C		K1=0.63	2002Kta (103131)	1046
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Method: capillary electrophoresis. Medium: 0.03-0.06 M KCl.

K+	sp	non-aq	25°C	100%	C		K1=2.62	2002Yeb (103132)	1047
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Method: steady state fluorescence spectroscopy. Medium: acetonitrile.

K+	con	non-aq	25°C	100%	C	TIH	K1=3.70	1999Rmb (103133)	1048
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Medium: 100% MeOH. Data for 15-55 C. Also data for DMF/MeOH mixtures.

DH(K1)=-27.4 kJ mol⁻¹, DS(K1)=-22.3 J K⁻¹ mol⁻¹. In 100% DMF, K1=1.83.

K+	dis	oth/un	25°C	0	U		K1=3.49	19940Ua (103134)	1049
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K+	con	non-aq	25°C	100%	U		K1=5.3	1993EVa (103135)	1050
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Medium: THF+CHCl₃ (4:1 vol)

K+	vlt	non-aq	25°C	100%	U		K1=10.4	1990SPa (103136)	1051
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Medium: 1,2-dichloroethane

K+	cal	non-aq	25°C	100%	C	H	K1=3.45	1986ICa (103137)	1052
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Medium: MeOH. DH(K1)=-31.1 kJ mol⁻¹, DS(K1)=-38.3 J K⁻¹ mol⁻¹.

K+	ISE	alc/w	25°C	100%	U		K1=3.53	1983GGa (103138)	1053
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Medium: MeOH

K+	dis	non-aq	35°C	100%	U	I	K1=3.7	1980TYb (103139)	1054
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Medium: propylene carbonate

K+	cal	alc/w	25°C	70%	U	H	K1=2.42	1976ITa (103140)	1055
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Medium: 70% w/w MeOH/H₂O. DH(K1)=-35.7 kJ mol⁻¹

K+	ISE	alc/w	25°C	100%	A		K1=3.49	1971FRa (103141)	1056
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Medium: MeOH

C24H32O8 L CAS 75832-82-5 (5618)

2,3:8,9-Dibenzo-1,4,7,10,13,16,19,22-octaoxacyclotetracos-2,8-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	sp	non-aq	25°C	100%	C		K1=3.730	2002YEa (103183)	1057
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Method: fluorescence spectroscopy. Medium: acetonitrile.

K+ oth alc/w 25°C 100% U K1=3.85 1980WAa (103184)1058
Medium: MeOH

C24H33N3O7 L (662)

4-Dihydroxyethylaminophenylazo-benzo-15-crown-5;

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

K+ ISE alc/w 25°C 100% C K1=3.28 B2=6.77 1985ZFa (103199)1059

C24H34N2O5 L CAS 182926-58-5 (8848)

7,13-Bis(2-methoxyphenyl)-1,4,10-trioxa-7,13-diazacyclopentadecane;

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

K+ sp alc/w RT 50% C K1=<2.3 2002GLb (103209)1060

Medium: 50% MeOH/H2O, pH 7.4 (0.1 M Tris buffer), 0.1 M Me4NCl.

C24H34O5P2 L CAS 470454-11-6 (8994)

7,13-Dibenzyl-1,4,10-trioxa-7,13-diphosphacyclopentan-7,13-dioxide;

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

K+ dis non-aq 24°C 100% C 2002MRd (103231)1061

K(K+A+L)=5.24

Medium: CDCl3. HA is picric acid.

C24H34O7 L CAS 20740-88-9 (5612)

1,17-Diphenoxy-3,6,9,12,15-pentaoxaheptadecane;

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

K+ gl alc/w 25°C 100% M K1=1.57 1976FAa (103235)1062

C24H34O10 HL CAS 143585-81-3 (7847)

1-Methyl-1,4,7,10,13,16-hexaoxacycloeicosino[18,19-b][1,4]benzodioxin-1-propanoic acid;

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

K+ ISE non-aq 25°C 100% U K1=3.54 1992BCe (103238)1063

K(K+HL)=2.73

K(KL+H)=8.81

Medium: methanol. Method: glass/K+ and glass/H+ electrodes.

Data for many structurally related macrocycles and linear analogues.

C24H35NO9 L CAS 330462-64-1 (8032)

6,7-Dimethoxy-4-(1,4,7,10,13-pentaoxa-16-azacyclooctadec-16-ylmethyl)-2H-1-benzopyran-2-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	mixed	25°C	10%	C		K1=4.41	2001LWa (103242)	1064

Method: fluorimetry. Medium: 10%v/v acetonitrile/H2O.

C24H36N2O4Fe L CAS 145519-34-2 (6831)

1,1'-(1,4,10,13-Tetraoxa-7,16-diazacyclooctadeca-7,16-diyl)dimethylferrocene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	nmr	non-aq	25°C	100%	U		K1=5.13	1992MGa (103255)	1065

Method:NMR. Medium: MeCN, 0.1 M Bu4NPF6. Data also for other ferrocene[2.2] cryptands. In MeOH K=3.77

C24H36O6 L (1703)

Decalino-benzo-18-crown-6

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	alc/w	25°C	?	U		K1=5.55	1983KTa (103290)	1066

C24H36O9 L (5573)

20,20-Dimethyl-21,22-(1,4-Benzodioxinic)-1,4,7,10,13,16,19-heptaoxacyclotricos-21-ene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	alc/w	25°C	100%	U		K1=2.85	1989MGb (103292)	1067

Medium: MeOH

C24H36O10P2 L (5726)

1,4-Bis(2-(diethoxyphosphinylmethoxy)phenyl)-1,4-dioxabutane;
2(EtO)2PO.CH2O.C6H4.O.CH2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U		K1=3.7	1989EVa (103295)	1068

Medium: tetrahydrofuran/CHCl3 4:1 (volume)

C24H36O18 H4L (8196)

2,3,11,12-Tetrakis[N-(carboxymethyl)carbamoyl]-1,4,7,10,13,16-hexaoxacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	oth/un	25°C	0.10M	C		K1=2.81	1982BLc (103299)	1069

Method: K ion selective electrode. Medium: 0.10 M Tris buffer, pH 7.0

Data for a large range of 2,3,11,12-substituted derivatives.

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
K+	gl	R4N.X	25°C	0.10M	M		K1=2.9 B(KHL)=8.3	1991FGb (103308)	1070

Medium: 0.10 M Et4NNO3.

C24H42N2O6	L	CAS 129242-36-0	(8616)
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6,16,25-Tris(methylene)-4,8,14,18,23,27-hexaoxa-1,11-diazabicyclo[9.9.9]nonacosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	cal	alc/w	25°C	80%	C	H	K1=3.60	1995KZa (103354)	1071

Medium: 80% v/v CH3OH/H2O. DH(K1)=-43.5 kJ mol⁻¹, DS(K1)=-77.2 J K⁻¹ mol⁻¹

C24H42O6	L	CAS 88692-14-2	(1705)
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Decalino-cyclohexano-18-crown-6

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	alc/w	25°C	?	U		K1=5.95	1983KTa (103391)	1072

C24H42O10	L	(2505)
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2,5,8,11,14,17,20,23,26,29-Decaoxa-15,16-benzo-triconta-15-ene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	non-aq	22°C	100%	U		K1=6.58	1987CCc (103395)	1073

In deuteriochloroform

C24H44N4O10	L	CAS 57207-22-4	(8203)
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N,N,N',N',N'',N'',N'''-Octamethyl-1,4,7,10,13,16-hexaoxacyclooctadecane-2,3,11,12-tetracarboxami

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	R4N.X	25°C	0.10M	U		K1=1.85	1976BLb (103403)	1075

Method: K ion selective electrode. Medium: 0.10 M (Me4N)H2PO4, pH 7.0

Data for related N-substituted amides with K, NH4 and alkylammonium ions.

C24H44O5	L	(2341)
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16,18,23,25-Tetramethyl-2,5,8,11,14-pentaoxatricyclo(22.4.0.0(15,20))pentacosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ nmr non-aq 24°C 100% U M 1981BEb (103409)1076
K(K(picrate)+L)=7.1

Medium: CDCl3

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

K+ sol non-aq 25°C 100% C K1=5.10 1999KCa (103430)1077
Medium: acetonitrile. In propylene carbonate, K1=4.79

C24H48N2O9 L BOA15C5 CAS 31255-19-3 (6119)
3-Oxa-1,5-bis-(1-aza-4,7,10,13-tetraoxacyclopentadecyl)pentane;

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

K+ ISE a/c/w 25°C 90% U K1=4.75 B2=7.82 1988HKa (103458)1078
Medium: 90% w/w MeOH/H2O

C24H48N2O9 L Cryptand 3,3,3 CAS 132162-61-9 (1761)
Cryptand 3,3,3

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

K+ gl a/c/w 25°C 100% C I K1=5.4 1975LSc (103464)1079
Medium: MeOH

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

K+ gl R4N.X 25°C 0.10M U K1=3.42 1982GKc (103483)1080
Medium: 0.10 M NMe4NO3.

K+ gl R4N.X 25°C 0.10M U K1=3.4 1981GLa (103484)1081

K+ kin non-aq 25°C 100% C K1=5.85 1977LSc (103485)1082
Medium: 0.10 M Et4NBr in MeOH.

C24H48N6O6S2 L CAS 503465-10-9 (9242)
9,12,23,26,31,34-Hexaoxa-1,4,6,15,17,20-hexaazabicyclo[18.8.8]hexatricosane-5,16-dithione;

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

K+ gl a/c/w 25°C 95% C K1=3.87 2004KVa (103505)1083
Medium: 95% MeOH/H2O, 0.01 M Et4NClO4.

C24H48N7O5P3 L CAS 254441-66-2 (7955)
 2,5,8,11,14-Pentaoxa-16,18,19-triaza-1,15,17-triphosphabicyclo[13.3.1]nonadeca-1,15,17-triene,17,

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	EMF	R4N.X	RT	0.10M	M			K1=1.02	2001BSb (103512)	1084

Method: Ag/Ag+ electrode. Medium: 0.10 M Et4NN03.

 C24H48O12 L 36-Crown-12 (7046)
 1,4,7,10,13,16,19,22,25,28,31,34-Dodecaoxacyclohexatriacontane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	cal	alc/w	25°C	100%	U	H		K1=3.03	1993ILa (103520)	1085

Medium: MeOH. DH=-50.3 kJ mol⁻¹.

 C24H49NO5 L CAS 86181-93-3 (1709)
 N-Dodecyl-monoaza-18-crown-6

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	ISE	alc/w	25°C	100%	U	I		K1=4.98	1983MKa (103522)	1086

 C24H49NO7 L CAS 75006-62-1 (1713)
 N-(Octyl-di-(oxyethylene))-monoaza-18-crown-6

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	ISE	alc/w	25°C	100%	U			K1=5.73	1983MKa (103524)	1087

 C24H49NO7 L CAS 86170-86-7 (1719)
 N-(Octyl-tri(oxyethylene))-monoaza-15-crown-5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	ISE	alc/w	25°C	100%	U			K1=4.57	1983MKa (103526)	1088

 C24H50N2O6 L CAS 85726-95-0 (646)
 4,10-Dibutoxyethoxyethylidene-1,7-dioxo-4,10-diazacyclododecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	sol	non-aq	20°C	100%	C			K1=5.57	1983SLa (103528)	1089

Medium: CHCl3

 C24H72O12Si12 L CAS 18919-94-3 (1287)
 Tetracosamethyl-cyclododecasiloxane; ((CH3)2SiO)12

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+ con alc/w 25°C 100% U K1=0.39 19800Pa (103591)1090
Medium: MeOH, 0.1 M Me4NBr

C25H19N3O2 L (2157)
2,6-(Di-(8-methoxyquinolyl)-pyridine; C9H6N.O.CH2.C5H3N.CH2.O.C9H7N

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

K+ sp alc/w 25°C 100% U K1=2.75 B2=4.75 1977TMa (103595)1091
Medium: MeOH

C25H22O2P2 L CAS 207-21-8 (2099)
Methylenebis(diphenylphosphine oxide); Ph2P(O)CH2P(O)Ph2

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

K+ con non-aq 25°C C K1=3.7 1999ESa (103629)1092
In tetrahydrofuran; alkali metal is used as 2,4-dinitrophenolate

K+ con non-aq 25°C 100% U K1=3.5 1984YKa (103630)1093
Medium: tetrahydrofuran + CHCl3 4:1, K as 2,4-dinitrophenolate

C25H26N4O5 HL CAS 207800-93-9 (8967)
19,20,22,23,25,26-Hexahydro-9-methyl-11,7-metheno-7H-dibenzotetraoxatetraazacyclotr
icosin-28-ol

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

K+ sp diox/w 25°C 50% C K1=1.17 2001INa (103651)1094
Medium: 50% v/v dioxane/H2O, 3% v/v triethylamine, pH 12.

C25H30N3O5Cl HL CAS 172033-66-8 (8619)
5-Chloro-2-(3,6,12,15-tetraoxa-9,21-diazabicycloheptacos-1,17,19-trien-9-ylmethyl)-
8-quinolinol;

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

K+ cal non-aq 25°C 100% C H K(K+HL)=5.16 1997ZBb (103686)1095

Medium: MeOH. DH(K)=-38.8 kJ mol⁻¹, DS(K)=-31.4 J K⁻¹ mol⁻¹.

C25H30N3O5Cl HL CAS 172033-54-4 (8618)
5-Chloro-7(3,6,12,15-tetraoxa-9,21-diazabicycloheptacos-1,17,19-trien-9-ylmethyl)-
8-quinolinol;

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

K+ cal non-aq 25°C 100% C H K(K+HL)=4.01 1997ZBb (103690)1096

Medium: MeOH. DH(K)=-28.3 kJ mol⁻¹, DS(K)=-18.2 J K⁻¹ mol⁻¹.

C25H32O8 HL (6604)
2-[(6,7,9,10,18,19-Hexahydro-17H-dibenzo[1,4,7,10,13]pentaoxacyclohexadeca-18-yl]oxyhexanoic acid

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

K+ dis oth/un 25°C ? U K1=2.05 1991BUa (103748)1097

C25H37N2O7P L CAS 202407-79-2 (8035)
26,27-Dimethoxy-3,7,24-triMe-11,14,17,20-tetraoxa-2,4-diaza-phosphatricycloheptacosahexaeneoxide;

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

K+ dis non-aq 20°C 100% C K(KP+L)=4.23 1998DDc (103757)1098

Medium: CHCl₃. P is picrate.

C25H40O12 L CAS 239470-22-5 (8948)
4'-Carboxybenzo-30-crown-10;

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

K+ con non-aq 25°C 100% C T H K1=5.31 1999RGa (103775)1099

Medium: acetonitrile. Data for 5-35 C. DH(K1)=-67.2 kJ mol⁻¹, DS(K1)=-125 J K⁻¹ mol⁻¹.

C25H50N2O8 L BCA15C5 CAS 71972-29-7 (6116)
1,5-Bis-(1-aza-4,7,10,13-tetraoxacyclopentadecyl)pentane;

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

K+ ISE alc/w 25°C 90% U K1=2.69 1988HKa (103829)1100

Medium: 90% w/w MeOH/H₂O

C25H50N4O5 L CAS 61136-92-3 (1535)
Pentaoxa-4,10,16,22,27-tetraaza-1,7,13,19-tricyclo-tetratriacontane;

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

K+ gl R4N.X 25°C 0.10M U K1=2.5 1981GLa (103835)1101

C25H50N4O8S L CAS 503465-06-3 (9249)
4,7,15,18,24,27,32,35-Octaoxa-1,10,12,21-tetraazabicyclo[19.8.8]heptatriacontane-11-thione;

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

K+ gl alc/w 25°C 95% C K1=5.90 2004KVa (103844)1102
Medium: 95% MeOH/H2O, 0.01 M Et4NClO4.

C25H50O9 L CAS 91318-82-0 (1670)
2-Octyl-di(oxyethylene)-oxymethylene-1,4,7,10,13,16-hexaoxacyclooctadecane, R-18-crown-6

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

K+ ISE alc/w 25°C 100% U I K1=5.50 1984IEa (103849)1103
Medium: MeOH. In 90% MeOH: K1=4.8

C26H24N4O5 L CAS 188838-26-8 (7359)
Dipyrido[3,2-a:2',3'-c]-phenazo-(1,4,7,10,13-pentaoxacyclopentadecane);

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

K+ sp non-aq 25°C 100% U I M 1997YLa (103899)1104
K(Ru(II)(bpy)2L+K)=2.28

Medium: CH3CN;0.1M NBu4PF6. In (CH3)2CO: K=2.13. Data also for
bis(4,4'-di-tert-butylbipyridyl) and bis(phenanthroline) RuL complexes.

C26H24O2P2 L (6648)
Bis(diphenylphosphinyl)ethane; (C6H5)2PO.CH2CH2.PO(C6H5)2

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

K+ con non-aq 25°C 100% U K1=2.1 1990EAb (103911)1105
Medium: THF+CHCl3 4:1(vol). Metal as 2,4-dinitrophenolate

C26H24O3P2 L (7158)
1,3-Bis(diphenylphosphinyl)-2-oxopropane;

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

K+ con non-aq 25°C C K1=2.7 1999TEa (103917)1106
In: tetrahydrofurane/CHCl3 4:1 v/v

K+ oth non-aq 25°C 100% U K1=2.7 1995TEa (103918)1107

Medium: tetrahydrofurane:CHCl3 4:1 (v/v).
Metal ion is used as 2,4-dinitrophenolate.

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

K+ sp alc/w 25°C 100% U K1=3.51 B2=5.92 1977TMa (103978)1108
Medium: MeOH

C26H34N4 L CAS 677034-80-9 (9063)

1-(2-{10-[2-Piperazinoethyl]-9-anthryl}ethyl)piperazine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+	sp	non-aq	25°C	100%	C			K1=3.80	2003GHa (104074)	1109
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K(KL+K)=2.71

Method: fluorescence spectroscopy. Medium: acetonitrile, 0.05 M Et4NClO4.

C26H34O9 L CAS 67655-23-6 (8711)

7,8,16,17-Tetrahydro-7,16-(epoxyethanoxyethanoxyethanoxyethanoxy)-dibenzotetraoxacy clotetradecin;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+	ISE	none	25°C	0.0	C			K1=4.3	1978PAa (104108)	1110
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Method: K-sensitive electrode.

C26H34O10 L (5629)

1,10-bis(2-Carboxymethoxyphenyl)-1,4,7,10-tetraoxadecane diethyl ester;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+	ISE	alc/w	25°C	100%	U			K1=3.42	1981PTb (104111)	1111
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Medium: MeOH

C26H35N3O5 HL CAS 254900-33-9 (8919)

7-(10-Hydroxybenzoquinoline-9-ylmethyl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecan e;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+	cal	alc/w	25°C	100%	C	H			1999SBg (104116)	1112
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K(K+HL)=3.52

Medium: MeOH. DH(K)=-31.2 kJ mol⁻¹, DS(K)=-37.3 J K⁻¹ mol⁻¹.

C26H36N2O6 L DiBzCryptand222 (746)

5,6,14,15-Dibenzo-4,7,13,16,21,24-hexaoxa-1,10-diazabicyclo[8.8.8]hexacosan-5,14-di ene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+	gl	R4N.X	25°C	0.05M	U	H			1998DBa (104133)	1113
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Medium: 0.05 M Et4NClO4. By calorimetry: DH(K1)=-36.7 kJ mol⁻¹,

K+	cal	non-aq	25°C	100%	U	IH			1988DSa (104134)	1114
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Medium: MeCN. DH(K1)=-71.3 kJ mol⁻¹. Also data in propylene carbonate, dimethylformamide and dimethylsulphoxide

K+	ISE	non-aq	25°C	100%	U	M		K1=6.10	1987DSa (104135)	1115
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Medium: N,N-dimethylformamide

K+ ISE alc/w 25°C 100% C I K1=8.60 1985CKa (104136)1116

Medium: MeOH. In propylenecarbonate K1=9.0; in DMF K1=6.73; in DMSO K1=6.12

C26H36N2O6Cl2 H2L (7215)

7,16-Bis((5-chloro-2-hydroxybenzyl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;

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

K+ cal non-aq 25°C 100% C H 1995ZBa (104156)1117

K(K+H2L)=2.76

Medium: methanol. DH(K)=-24.1 kJ mol⁻¹, DS(K)=-28 J K⁻¹ mol⁻¹.

C26H36O9 L CAS 518019-36-8 (8969)

2,3:11,12-Dibenzo-1,4,7,10,13,16,19,22,25-nonaoxacycloheptacos-2,11-diene;

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

K+ sp non-aq 25°C 100% C K1=2.43 2002YEB (104163)1118

Method: steady state fluorescence spectroscopy. Medium: acetonitrile.

C26H36O9 L DiBz-27-crown-9 CAS 61260-08-0 (1775)

Dibenzo-27-crown-9.

2,3:17,18-Dibenzo-1,4,7,10,13,16,19,22,25-nonaoxacycloheptacos-2,15-diene;

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

K+ cal alc/w 25°C 70% U H K1=2.86 1976ITa (104172)1119

Medium: 70% w/w MeOH/H₂O. DH(K1)=-39.7 kJ mol⁻¹

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

K+ ISE alc/w 25°C 100% U K1=3.38 1992MGa (104186)1120

Medium: MeOH, 0.1 M Bu₄NPF₆

K+ gl alc/w 25°C 93% U K1=3.0 1978WVa (104187)1121

Medium: 93% MeOH/H₂O

C26H38N2O6 L CAS 155581-87-6 (8849)

7,16-Bis(2-methoxyphenyl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;

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

K+ sp alc/w RT 50% C K1=3.9 2002GLb (104194)1122

Medium: 50% MeOH/H₂O, pH 7.4 (0.1 M Tris buffer), 0.1 M Me₄NCl.

C26H38O6P2 L CAS 470454-13-8 (8995)
7,16-Dibenzyl-1,4,10,13-tetraoxa-7,16-diphosphacyclooctadecane-7,16-dioxide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+		dis non-aq	24°C	100%	C			K(K+A+L)=5.27	2002MRd (104212)	1123

Medium: CDCl3. HA is picric acid.

C26H38O8 L CAS 20740-89-0 (5613)
1,20-Diphenoxy-3,6,9,12,15,18-hexaoxaicosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+		gl alc/w	25°C	100%	M			K1=1.99	1976FAa (104216)	1124

C26H38O8 L (2507)
2,5,8,11,16,19,22,25-Octaoxa-12,13:14,15-dibenzoheptacosane-12,14-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+		ISE alc/w	25°C	100%	U			K1=1.45	1975CJa (104219)	1125

Medium: MeOH

C26H40N4O6 H2L CAS 227796-04-5 (8915)
7,16-Bis(5-amino-2-hydroxybenzyl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+		cal alc/w	25°C	100%	C	H			1999SBf (104226)	1126

K(K+H2L)=2.81

Medium: MeOH. DH(K)=-34.8 kJ mol⁻¹, DS(K)=-63.1 J K⁻¹ mol⁻¹.

C26H40O10 L CAS 123313-39-3 (5574)
23,23-Dimethyl-24,25-(1,4-Benzodioxinic)-21,4,7,10,13,16,19,22-octaoxacyclohexacosane-24-ene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+		gl alc/w	25°C	100%	U			K1=2.63 B2=4.73	1989MGB (104240)	1127

Medium: MeOH

C26H40O11P2 L (5727)
1,7-Bis(2-(diethoxyphosphinylmethoxy)phenyl)-1,4,7-trioxahexane;2(EtO)2PO.CH2OC6H4C2H4OC2H4)2O

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+		con non-aq	25°C	100%	U			K1=4.4	1989Eva (104243)	1128

Medium: tetrahydrofuran/CHCl3 4:1 (volume)

C26H45N3O6 L CAS 111928-04-2 (8968)
7-Phenyl-4,10,16,19,24,27-hexaoxa-1,7,13-triazabicyclo[11.8.8]nonacosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	dis	none	25°C	dil	C			K1=7.79 K(K+A+L(org))=KAL(org)=5.19	1987BBF (104279)	1129

Method: extraction of metal picrate from H2O into CHCl3.

C26H48N2O6 L (6003)
5,6,14,15-Dicyclohexyl-4,7,13,16,21,24-hexaoxa-1,10-diazabicyclo[8.8.8]hexacosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	ISE	alc/w	25°C	100%	U	H		K1=6.92	1987BUB (104295)	1130

In MeOH. DH=-36.1 kJ mol⁻¹

C26H48O6 L (2342)
19,21,26,28-Tetramethyl-2,5,8,11,14,17-hexaoxatricyclo[22.4.0.0(18,23)]octacosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	nmr	non-aq	24°C	100%	U	M		K(K(picrate)+L)=7.2	1981BEb (104309)	1131

Medium: CDCl₃

C26H50N2O7 L (6931)
N,N'-Bis(1-tetrahydrofuranyl-2-ethoxyethyl)-1,4-diaza-7,10,13-trioxacyclopentadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	cal	alc/w	25°C	90%	U	H		K1=3.59	1994IZa (104319)	1132

L=N,N'-Bis(1-tetrahydrofuranyl-2-ethoxyethyl)-1,4-diaza-7,10,13-trioxacyclopentadecane. Medium: 90% v/v MeOH/H₂O. DH(K1)=-43.2 kJ mol⁻¹.

C26H52N2O5 L Cryptand 221D CAS 62002-40-8 (8956)
5-Decyl-4,7,13,16,21-pentaoxa-1,10-diazabicyclo[8.8.5]tricosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	M	M		K1=6.91 K(KL+C104)=1.18	1999DSd (104321)	1133

Medium: acetonitrile.

C26H52N4O5 L CAS 78648-22-3 (1534)
4,10,16,22,33-Pentaoxa-1,7,13,19-tetraazatricyclo[11,11,6,5(7.19)pentatriacontane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+ gl R4N.X 25°C 0.10M U K1=2.52 1982GKc (104328)1134
Medium: 0.10 M NMe4NO3.

K+ gl R4N.X 25°C 0.10M U K1=<2 1981GLa (104329)1135

C26H52N6O7S2 L CAS 503465-16-5 (9245)
4,12,20,26,29,34,37-Hepta-oxa-1,7,9,15,17,23-hexaazabicyclo[21.8.8]nonatriacontane-8,
16-dithione;

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

K+ gl alc/w 25°C 95% C K1=5.33 2004KVa (104339)1136
Medium: 95% MeOH/H2O, 0.01 M Et4NClO4.

C26H52N6O7S2 L CAS 503465-12-1 (9243)
9,12,15,26,29,34,37-Hepta-oxa-1,4,6,18,20,23-hexaazabicyclo[21.8.8]nonatetricontane-5,
19-dithione;

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

K+ gl alc/w 25°C 95% C K1=3.76 2004KVa (104349)1137
Medium: 95% MeOH/H2O, 0.01 M Et4NClO4.

C26H53N06 L CAS 75006-60-9 (1716)
N-(Dodecyl-di-(oxyethylene))-monoaza-15-crown-5

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

K+ ISE alc/w 25°C 100% U I K1=3.55 1983MKa (104354)1138

C26H53N08 L CAS 86170-85-6 (1718)
N-(Octyl-tetra(oxyethylene))-monoaza-15-crown-5

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

K+ ISE alc/w 25°C 100% U K1=4.74 1983MKa (104356)1139

C26H53N08 L CAS 86170-87-8 (1712)
N-(Octyl-tri-(oxyethylene))-monoaza-18-crown-6

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

K+ ISE alc/w 25°C 100% U K1=5.74 1983MKa (104358)1140

C26H54N2O10 L CAS 85726-99-4 (652)
4,13-Dimethyloxyethoxyethoxyethylidene-1,7,10,16-tetraoxy-4,13-diazaoctadecane;

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

K+ sol non-aq 20°C 100% C K1=5.65 1983SLa (104360)1141
Medium: CHCl3

C27H26O2P2 L (6811)

1,2-Bis(2-Diphenylphosphinyl)-1-methylethane;

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

K+ con non-aq 25°C 100% U K1=2 1990EAb (104396)1142

Medium: THF+CHCl3 4:1(vol). Metal as 2,4-dinitrophenolate. Data also for
1,1-dimethyl, 1-hexyl, 1-heptyl, 1-octyl and 1-decyl analogues

C27H26O3P2 L (6812)

1,2-Bis(2-Diphenylphosphinyl)-1-hydroxymethylethane;

(C6H5)2PO.CH(CH2OH)CH2.PO(C6H5)2

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

K+ con non-aq 25°C 100% U K1=1.9 1990EAb (104401)1143

Medium: THF+CHCl3 4:1(vol). Metal as 2,4-dinitrophenolate. Data also for
3-hydroxypropyl analogue

C27H26O3P2 L (7159)

1,4-Bis(diphenylphosphinyl)-2-oxobutane;

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

K+ oth non-aq 25°C 100% U K1=2.9 1995TEa (104406)1144

Medium: tetrahydrofuran:CHCl3 4:1 (v/v).
Metal ion is used as 2,4-dinitrophenolate.

C27H32N05S+ L CAS 423763-94-4 (8997)

3-Ethyl-2-[4-(2,3,5,6,8,9,11,12-octahydro-1,4,7,10,13-benzopentaoxacyclopentadecin-
15-yl)butadien

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

K+ sp non-aq 25°C 100% C K1=3.11 2002GVc (104516)1145

Medium: acetonitrile, 0.1 M Et4NClO4.

C27H47N3O6 L (8029)

Tripodal ionophore 3;

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

K+ sp non-aq 25°C 100% C 2001LFa (104624)1146

K(KP+L=LiPL)=4.37

Method: Analyses by spectrophotometry. Medium: chloroform. P is picrate.

C28H24N2O4 L (5742)

5,6-Benzo-1,10-di(8-quinolyl)-1,4,7,10-tetraoxadecane;
C9H6N.O.C2H4.O.C6H4.O.C2H4.O.C9H6N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U		K1=5.0	1989BEa (104675)	1147

Medium: tetrahydrofuran/CHCl3 4:1 (volume)

C28H24O6 L TetBz18-Crown-6 CAS 99700-20-6 (6070)
2,3:8,9:11,12:14,15-Tetrabenzo-1,4,7,10,13,16-hexaoxacyclooctadeca-2,8,11,14-tetraene

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	dis	non-aq	23°C	100%	C		K1=4.0 K(K+A+L(org)=KAL(org))=3.94	1992HGb (104681)	1148

Extraction of metal chloride (A) from aqueous solution into nitrobenzene/
0.01M Bu4NB(Ph)4. Peak potential voltammetry and distribution of 42K.

C28H24O6 L CAS 72011-26-8 (8874)
2,3:8,9:11,12:17,18-Tetrabenzo-1,4,7,10,13,16-hexaoxacyclooctadeca-2,8,11,17-tetraene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	dis	non-aq	23°C	100%	C		K1=3.4 K(K+A+L(org)=KAL(org))=3.97	1992HGb (104686)	1149

Extraction of metal chloride (A) from aqueous solution into nitrobenzene/
0.01M Bu4NB(Ph)4. Peak potential voltammetry and distribution of 42K.

C28H28O3P2 L (6815)
1,5-Bis(diphenylphosphinyl)-3-oxapentane; O(CH2.CH2.PO(C6H5)2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U		K1=5.0	1993Eva (104710)	1150

Medium: THF+CHCl3 (4:1 vol)

K+	con	non-aq	25°C	100%	U		K1=2.7	1992BEa (104711)	1151
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Medium: THF+CHCl3 (4:1 vol)

C28H28O4P2 L (7891)
1,6-Bis(diphenylphosphinyl)-2,5-dioxohexane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C		C		K1=3.2	1999TEa (104721)	1152

In: tetrahydrofurane/CHCl3 4:1 v/v

C28H30N2O2P2 L CAS 68745-29-9 (5707)

N,N'-Bis(diphenylphosphinylmethyl)-1,2-diaminoethane; ((C6H5)2PO.CH2.NH.CH2-)₂

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+	con	non-aq	25°C	100%	U			K1=2.8	1984YKa (104726)	1153
Medium: tetrahydrofuran + CHCl ₃ 4:1, K as 2,4-dinitrophenolate										

C28H32N2O6		L						(5743)		
1,16-Di(8-quinolyl)-1,4,7,10,13,16-hexaoxahexadecane; C ₉ H ₆ N.O.(C ₂ H ₄ O) ₅ .C ₉ H ₆ N										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+	con	non-aq	25°C	100%	U			K1=5.9	1989BEa (104749)	1154
Medium: tetrahydrofuran/CHCl ₃ 4:1 (volume)										

C28H35O7P		L						CAS 90275-27-7	(2068)	
Adamantylphosphonyldibenzo-17-crown-6										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+	sol	non-aq	25°C	100%	U			K1=3.69	1987TCa (104767)	1155
Medium: CH ₂ Cl ₂ , 2% MeCN. Metal as picrate										

C28H36N2O7S2		HL						CAS 150196-54-6	(7735)	
3-(3-Sulfopropyl)-2-[4-[N-(1,4,7,10,13-pentaoxa-16-azacyclooctadeca)]]styryl-benzot hiazolium;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+	sp	non-aq	18°C	100%	C			K1=1.3	1997LHa (104783)	1156
Medium: acetonitrile.										

C28H40N2O6		L						(2443)		
Bicyclo-NcN'-1,10-diaza-4,7,13,16-tetraoxaoctadecane; (c=(CH ₂ .C ₆ H ₄ .O.CH ₂) ₂)										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+	gl	alc/w	25°C	93%	U			K1=2.65	1978WVa (104817)	1157
Medium: 93% MeOH/H ₂ O										

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+	con	non-aq	25°C	100%	C	I M			1983RCb (104841)	1158
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K(KL+Cl)=0.60
K(KL+ClO₄)=0.78
K(KL+A)=1.29
K(KL+B(C₆H₅)₄)=1.38

Medium: 100% methanol. HA=picric acid. Also data for 100% acetonitrile, propylene carbonate, dimethylformamide, isopropyl alcohol and butanol.

K+ con alc/w 25°C 100% U I M 1979BDa (104842)1159
K(KCl+L)=5.06

Medium: MeOH. In DMSO: K(KClO4+L)=3.42. In MeCN: K(KBPh4+L)=4.98

C28H40O8 L AN(MOE0EOM)2AN (2243)
29,30-Dimethoxy-13,27-dimethyl-3,6,9,17,20,23-hexaoxatricyclo-tricon-1,11,13,15,2
5,27-hexaene;

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

K+ dis non-aq 25°C 100% U H 1979KLa (104856)1160
K(K(picrate)+L)=3.94

Medium: CHCl3

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-decaoxacyclotriacon-2,17-diene;

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

K+ dis oth/un 25°C 0 U K1=4.33 19940Ua (104884)1161

K+ con non-aq 25°C 100% U I K1=5.96 1991ASb (104885)1162
Medium: 1,2-dichlorethane. In nitromethane: K1=5.37; in MeCN: K=4.63;
in acetone: K=4.39; in DMF: K=3.13

K+ vlt non-aq 25°C 100% U K1=12.4 1990SPa (104886)1163
Medium: 1,2-dichloroethane

K+ nmr non-aq 21°C 100% U B(K2L)=1.72 1987SRb (104887)1164

Medium: CH3NO2.

K+ sp mixed 25°C 20% U I K1=2.42 1986GSa (104888)1165
In 0.015 M Et4N.Cl, 20% CH3CN/H2O. In 40%, K1=2.71; 60%, K1=3.23;
80%, K1=3.88; 100% CH3CN, K1=4.90.

K+ nmr non-aq 20°C 100% U K1=4.30 1976LCa (104889)1166
Medium: acetone

K+ ISE alc/w 25°C 100% A K1=4.60 1971FRa (104890)1167
Medium: MeOH

C28H42N2O6 L (2451)
N,N'-Bis(4-methoxybenzyl)-1,10-diaza-4,7,13,16-tetraoxacyclooctadecane;

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

K+ gl alc/w 25°C 93% U K1=2.8 1978WVa (104927)1168
Medium: 93% MeOH/H2O

C28H42O9 L CAS 97583-32-9 (5614)

1,13-Diphenoxy-3,6,9,12,15,18,21-heptaoxatricosane;

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

K+ gl alc/w 25°C 100% M K1=2.44 1976FAa (104930)1169

C28H43NO5 L CAS 36080-62-3 (5355)

2:3,11:12-Dibenzo-16-octyl-1,4,7,10,13-pentaoxa-16-azaoctadeca-2,11-diene;

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

K+ EMF alc/w 25°C 100% A K1=4.10 1971FRa (104932)1170

Medium: MeOH

C28H44N4O6 H2L CAS 227796-02-3 (8913)

7,16-Bis(3-amino-2-hydroxy-5-methylbenzyl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;

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

K+ cal alc/w 25°C 100% C H 1999SBf (104938)1171

K(K+H2L)=2.36

Medium: MeOH. DH(K)=-10.6 kJ mol⁻¹, DS(K)=9.6 J K⁻¹ mol⁻¹.

For the 3-trifluoroacetamidobenzyl derivative, DH(K)=-70, DS(K)=-133.

C28H44O6 L (1704)

Decalino-(tert-butyl-benzo)-18-crown-6

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

K+ ISE alc/w 25°C ? U K1=5.47 1983KTa (104940)1172

C28H44O11 L CAS 123295-33-0 (5575)

26,26-Dimethyl-27,28-(1,4-Benzodioxinic)-1,4,7,10,13,16,19,22,25-nonoxacyclononacos a-27-ene;

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

K+ gl alc/w 25°C 100% U K1=2.60 B2=4.90 1989MGb (104942)1173

Medium: MeOH

C28H44O12P2 L (5728)

1,10-Bis(2-(diethoxyphosphinylmethoxy)phenyl)-1,4,7,10-tetraoxadecane;

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

K+ con non-aq 25°C 100% U K1=5.1 1989EVa (104945)1174
Medium: tetrahydrofuran/CHCl3 4:1 (volume)

C28H47NO11 L (1689)

N-(2-(2-(4'-Benzo-15-crown-5)-oxyethoxy)ethyl-1,4,7,10-tetraoxa-13-azacyclopentadecane;

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

K+ ISE a/c/w 25°C 10% U K1=3.16 1986HAa (104968)1175

Medium: 10% MeOH/H2O

C28H48O6 L CAS 88692-13-1 (1706)

Didecalino-18-crown-6

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

K+ ISE a/c/w 25°C ? U K1=6.18 1983KTA (104976)1176

C28H52O5 L (2339)

16,16,18,18,23,23,25,25-Octamethyl-2,5,8,11,14-pentaoxatricyclo(22.4.0.0(15,20))pentacosane;

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

K+ nmr non-aq 24°C 100% U M 1981BEb (105009)1177

K(K(picrate)+L)=5.2

Medium: CDCl3

C28H52O6 L (5352)

Di(t-butylcyclohexyl)-18-crown-6

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

K+ oth oth/un 25°C dil U K1=2.08 1970MSa (105015)1178

C28H52O10 L CAS 17455-26-4 (6071)

2,3:17,18-Dicyclohexyl-1,4,7,10,13,16,19,22,25,28-decaoxacyclotriacontane;

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

K+ sol non-aq 25°C 100% C I K1=4.86 1999KCa (105021)1179

Medium: acetonitrile. Also K1=4.66 (propylene carbonate), K1=4.50 (MeOH), K1=5.93 (i-PrOH), K1=5.47 (n-BuOH), K1=4.58 (acetone).

C28H54N2O8 L (6936)

N,N'-Bis(1-furanyl-2-ethoxyethyl)-1,4-diaza-7,10,13,16-tetraoxacyclooctadecane;

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

K+ cal alc/w 25°C 90% U IH K1=4.52 1994IZa (105026)1180
L=N,N'-Bis(1-furanyl-2-ethoxyethyl)-1,4-diaza-7,10,13,16-tetraoxacycloocta-
decane. Medium: 90% v/v MeOH/H2O. DH(K1)=-34.9 kJ mol⁻¹. Also in 100% MeOH

C28H56N2O6 L Cryptand 222D CAS 69878-46-2 (8957)
5-Decyl-4,7,13,16,21,24-hexaoxa-1,10-diazabicyclo[8.8.8]hexacosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	M	M	K1=>12 K(KL+Cl04)=0.87	1999DSd (105029)	1181

Medium: acetonitrile.

C28H56N2O11 L BOA18C6 (6118)
3-Oxa-1,5-Bis-(1-aza-4,7,10,13,16-pentaoxacyclooctadecyl)pentane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	alc/w	25°C	90%	U		K1=4.75 B2=7.82	1988HKa (105033)	1182

Medium: 90% w/w MeOH/H2O

C28H56N6O8S2 L CAS 503465-18-7 (9246)
4,12,15,23,29,32,37,40-Octaoxa-1,7,9,18,20,26-hexaazabicyclo[24.8.8]dotetracontane-
8,19-dithione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	alc/w	25°C	95%	C		K1=5.62	2004KVa (105040)	1183

Medium: 95% MeOH/H2O, 0.01 M Et4NCl04.

C28H56N6O8S2 L CAS 503465-14-3 (9244)
9,12,15,18,29,32,37,40-Octaoxa-1,4,6,21,23,26-hexaazabicyclo[24.8.8]dotetratriconta-
ne-5,22-dithio

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	alc/w	25°C	95%	C		K1=3.61	2004KVa (105050)	1184

Medium: 95% MeOH/H2O, 0.01 M Et4NCl04.

C28H57N07 L CAS 81239-49-8 (1708)
N-(Dodecyl-di(oxyethylene))-monoaza-18-crown-6

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	alc/w	25°C	100%	U	I	K1=5.62	1983MKa (105055)	1185

C28H57N07 L CAS 81239-49-8 (1715)
N-(Dodecyl-tri(oxyethylene))-monoaza-15-crown-5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ ISE alc/w 25°C 100% U I K1=4.46 1983MKa (105057)1186

C28H57NO9 L CAS 86181-95-5 (1711)
N-(Octyl-tetra-(oxyethylene))-monoaza-18-crown-6

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

K+ ISE alc/w 25°C 100% U K1=5.75 1983MKa (105059)1187

C28H58N2O8 L CAS 85726-98-3 (651)
4,13-Dibutoxyethoxyethylidene-1,7,10,16-tetraoxo-4,13-diazacyclooctadecane;

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

K+ sol non-aq 20°C 100% C K1=6.03 1983SLa (105061)1188
Medium: CHCl3

C29H30O3P2 L CAS 176849-77-7 (7160)
1,6-Bis(diphenylphosphinyl)-2-oxohexane;

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

K+ oth non-aq 25°C 100% U K1=2.6 1995TEa (105079)1189
Medium: tetrahydrofuran:CHCl3 4:1 (v/v).
Metal ion is used as 2,4-dinitrophenolate.

C29H30O3P2 L CAS 176849-78-8 (7161)
1,6-Bis(diphenylphosphinyl)-3-oxohexane;

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

K+ oth non-aq 25°C 100% U K1=2.3 1995TEa (105084)1190
Medium: tetrahydrofuran:CHCl3 4:1 (v/v).
Metal ion is used as 2,4-dinitrophenolate.

C29H30O4P2 L (7897)
1,7-Bis(diphenylphosphinyl)-2,6-dioxoheptane;

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

K+ con non-aq 25°C C K1=3.5 1999TEa (105089)1191
In: tetrahydrofuran/CHCl3 4:1 v/v

C29H35NO5 L CAS 201154-06-5 (7825)
N-(1-Pyrenylmethyl)-1,4,7,10,13-pentaoxa-16-azacyclooctadecane;

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

K+ sp mixed 25°C 90% C 1997KKa (105100)1192

K(KSCN+L)=4.75

Method: fluorescence emission. Medium: MeOH/CHCl₃ (9:1 v/v).

C29H36N06S+ L CAS 423763-96-6 (8998)
2-[4-(2,3,5,6,8,9,11,12,14,15-Decahydro-1,4,7,10,13,16-benzohexaoxacyclooctadecin-1
8-yl)butadien

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

K+ sp non-aq 25°C 100% C K1=4.81 2002GVc (105105)1193
Medium: acetonitrile, 0.1 M Et₄NClO₄.

C29H40N206Cl₂ L CAS 181706-77-4 (8627)
3,18-Dichlorooctahydro-5H,16H-6,15-(ethanoxyethanoxyethano)-dibenzotetraoxaazacyclo
heneicosine;

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

K+ cal non-aq 25°C 100% C H K1=4.58 1998ZBc (105137)1194
Medium: MeOH. DH(K₁)=-31.1 kJ mol⁻¹, DS(K₁)=-16.6 J K⁻¹ mol⁻¹.

C29H42N206 L (2444)
Bicyclo-NcN'-1,10-diaza-4,7,13,16-tetraoxaoctadecane;(c=(CH₂.C₆H₄.O.CH₂)₂.CH₂)

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

K+ gl alc/w 25°C 93% U K1=2.8 1978WVa (105147)1195
Medium: 93% MeOH/H₂O

C29H58N2010 L BCA18C6 CAS 74776-87-7 (6117)
1,5-Bis-(1-aza-4,7,10,13,16-pentaoxacyclooctadecyl)pentane;

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

K+ ISE alc/w 25°C 90% U K1=4.54 B2=7.62 1988HKa (105170)1196
Medium: 90% w/w MeOH/H₂O

C30H30N20010 L CAS 259886-49-2 (8959)
Cucurbit[5]uril;

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

K+ sol none 25°C dil C K1=1.31 2001BCf (105216)1197
Method: dissolution of ligand in a 0.002-0.02 M KX solution; spectrophoto
metric measurement. For decamethylcucurbit[5]uril, K₁=1.11.

C30H3204P₂ L (6816)
1,8-Bis(diphenylphosphinyl)-3,6-dioxaoctane;

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

 K+ con non-aq 25°C 100% U K1=2.80 1993EBa (105227)1198
 Medium: CH3CN. Data also for 3,5,8-trioxa, 3,5,8,11-tetraoxa and 3,5,8,11-pentaoxa analogues

K+ con non-aq 25°C 100% U K1=3.2 1992BEa (105228)1199
 Medium: THF+CHCl3 (4:1 vol)

 C30H32O5P2 L (7892)
 1,9-Bis(diphenylphosphinyl)-2,5,8-trioxononane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ con non-aq 25°C C K1=3.8 1999TEa (105235)1200
 In: tetrahydrofuran/CHCl3 4:1 v/v

 C30H34N2O2P2 L CAS 68743-31-3 (2066)
 Diaminoethane-N,N'-di-2-ethyldiphenylphosphine oxide; (CH2.NH.C2H4.P(O)(C6H5)2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ con non-aq 25°C 100% U K1=2.56 1986STb (105240)1201
 Medium: THF:CHCl3 4:1 v/v. M as 2,4-dinitrophenolate

 C30H36N8O3 Furan-cryptand CAS 121954-37-8 (7451)
 39,40,41-Trioxa-1,4,11,14,17,24,29,36-octaazapentacyclo[12.12.12.1.1.1]henLetetracododecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ sp non-aq 25°C 100% U K1=2.6 1996AAb (105254)1202
 Medium: MeCN

tacyclo[12.12.12.1(6,9).1(19,22).1(31,34)]hentetetraconta-4,6,8....dodecaene

 C30H36O6 L ANANAN(MOE)20 (2239)
 2,3,4,5,6,7,8,9,10-Tri(1,3-(2-methoxy-5-methylbenzo))-12,15,18-trioxacyclooctadeca-2,5,8-triene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ dis non-aq 25°C 100% U H 1979KLa (105260)1203
 K(K(picrate)+L)=9.06

Medium: CHCl3

 C30H37N5O7 HL CAS 552856-74-3 (8846)
 7-[2-Methoxy-4-[(4-nitrophenyl)azo]phenyl]-13-(2-methoxyphenyl)-1,4,10-trioxa-7,13-diazacyclopentene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ sp alc/w RT 50% C K1=1.6 2002GLb (105266)1204
Medium: 50% MeOH/H2O, pH 7.4 (0.1 M Tris buffer), 0.1 M Me4NCl.

C30H38N2O4 L (5828)

Trimethoxyphenylcryptand 3,1.

25,26,27-Trimethoxy-5,10,15-trimethyl-22-oxa-1,19-diazatetra-

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

K+ nmr non-aq 25°C 100% U K1=<8.68 1986CHc (105272)1205
In CDCl3

C30H38N2O8 L CAS 137571-97-2 (6821)

Anthraquinone[2.2]cryptand;

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

K+ ISE non-aq 25°C 100% U K1=6.22 1992CSc (105277)1206
Ag/Ag+ electrode. Medium: MeCN, 0.05 M Bu4NClO4

C30H42O10P4 L CAS 97910-31-1 (2083)

Tris-((2-(dimethylphosphinylmethoxy)phenoxy)methyl)phosphine oxide;

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

K+ con non-aq 25°C 100% U K1=3.72 1989KSa (105301)1207
Medium: tetrahydrofuran/CHCl3 4:1 (vol)

C30H44N2O6 L (2445)

Bicyclo-NcN'-1,10-diaza-4,7,13,16-tetraoxaoctadecane;(c=(CH2.C6H4.O.(C2H4)2)

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

K+ gl alc/w 25°C 93% U K1=2.85 1978WVa (105310)1208
Medium: 93% MeOH/H2O

C30H44O10 L CAS 96011-79-9 (653)

4,4'(5')-Dimethylbenzo-30-crown-10;

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

K+ sol non-aq 20°C 100% C K1=6.89 1983SLa (105318)1209
Medium: CHCl3

C30H46O10 L (5615)

1,26-Diphenoxy-3,6,9,12,15,18,21,24-octaoxahexacosane;

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

K+ gl alc/w 25°C 100% M K1=2.71 1976FAa (105324)1210

C30H48N4O6 L (6937)
N,N'-Bis(1-pyridyl-2-ethoxyethyl)-1,4-diaza-7,10,13,16-tetraoxacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	cal	alc/w	25°C	90%	U	H		K1=4.26	1994IZa (105326)	1211

L=N,N'-Bis(1-pyridyl-2-ethoxyethyl)-1,4-diaza-7,10,13,16-tetraoxacyclooctadecane. Medium: 90% v/v MeOH/H₂O. DH(K1)=-38.1 kJ mol⁻¹.

C30H48O12 L CAS 123313-40-6 (5576)
29,29-Dimethyl-30,31-(1,4-Benzodioxinic)-1,4,7,10,13,16,19,22,25,28-decaoxacyclodotriaconta30ene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	gl	alc/w	25°C	100%	U			K1=2.54 B2=4.74	1989MGB (105340)	1212

Medium: MeOH. Some other similar ligands also studied

C30H48O13P2 L CAS 112120-14-6 (5729)
1,13-Bis(2-(diethoxyphosphinylmethoxy)phenyl)-1,4,7,10,13-pentaoxatriadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U			K1=5.4	1989Eva (105343)	1213

Medium: tetrahydrofuran/CHCl₃ 4:1 (volume)

C30H57N08 HL 18NH15-C5A CAS 79145-86-1 (5405)
2-Carboxy-3-N-octadecanylformamide-1,4,7,10,13-pentaoxycyclopentadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	gl	alc/w	25°C	90%	U			K1=2.9 B(KHL)=8.3	1984FWa (105382)	1214

Medium: 90% v/v MeOH/H₂O, 0.05 M R4NX

C30H61N08 L CAS 86181-96-6 (1710)
N-(Dodecyl-tri(Oxyethylene))-monoaza-18-crown-6

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	ISE	alc/w	25°C	100%	U	I		K1=5.70	1983MKa (105384)	1215

C31H34O4P2 L (7157)
1,9-Bis(diphenylphosphinyl)-3,7-dioxononane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	oth	non-aq	25°C	100%	U			K1=2.5	1995TEa (105525)	1216

Medium: THF:CHCl₃ 4:1 v/v. K as 2,4-dinitrophenolate. Also other si

milar ligands

C31H46N2O6 L (2446)
Bicyclo-NcN'-1,10-Diaza-4,7,13,16-tetraoxaoctadecane; (c=(CH2.C6H4.O.C2H4)2.CH2)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	alc/w	25°C	93%	U		K1=2.65	1978WVa (105552)	1217

Medium: 93% MeOH/H2O

C32H28O4P2 L CAS 88928-04-5 (2072)
1,2-Dihydroxybenzene bis(diphenylphosphinylmethyl) ether

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C		C		K1=3.1	1999TEa (105575)	1218

In: tetrahydrofuran/CHCl3 4:1 v/v

C32H29O3P3 L CAS 21851-89-8 (2640)
P,P,P',P'',P'''-Pentaphenyldimethylenetri(phosphineoxide); (Ph2P(O)CH2)2P(O)Ph

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	non-aq	25°C	100%	U	M		1981SPb (105582)	1219

K(KI+L)=1.77

Medium: CH3CN

C32H33N3O12F2 L CAS 149696-88-8 (7035)
2,3:14,15-Difluorobenzo-8,9-(4-dicarboxymethyliminobenzo)-4,13-diaza-4,13-dicarboxy methylcyclooc-

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	R4N.X	30°C	0.10M	U			1993SKf (105617)	1220

K1eff=1.99

Medium: Me4NCl. K1eff at pH 7.2

C32H36O5P2 L CAS 137728-07-5 (6837)
1,11-Bis(diphenylphosphinyl)-3,6,9-trioxaundecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U		K1=3.9	1992BEa (105645)	1221

Medium: THF+CHCl3 (4:1 vol)

C32H36O6P2 L (7893)
1,12-Bis(diphenylphosphinyl)-2,5,8,11-tetraoxododecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ con non-aq 25°C C K1=4.4 1999TEa (105650)1222
In: tetrahydrofuran/CHCl3 4:1 v/v

C32H38N2O7 L CAS 488759-47-3 (9009)

cis-2,12-Dimethyl-2,12-bis[(8-quinolyloxy)methyl]-15-crown-5;

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

K+ sp non-aq 25°C 100% C K1=4.84 2002NMa (105668)1223

Medium: THF, using metal picrate salt. For the trans- ligand, K1=4.28.

C32H38N2O7 L CAS 225792-57-4 (9008)

cis-2,6-Dimethyl-2,6-bis[(8-quinolyloxy)methyl]-15-crown-5;

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

K+ sp non-aq 25°C 100% C K1=4.88 2002NMa (105670)1224

Medium: THF, using metal picrate salt. For the trans- ligand, K1=4.26.

C32H38N2O7 L (9015)

cis-2,9-Dimethyl-2,6-bis[(8-quinolyloxy)methyl]-15-crown-5;

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

K+ sp non-aq 25°C 100% C K1=5.98 2002NMa (105672)1225

Medium: THF, using metal picrate salt. For the trans- ligand, K1=4.22.

C32H38N2O10 L (7073)

7,16-Bis(6-methoxy-2-oxo-2H-1-benzopyran-7-yl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;

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

K+ sp none RT 0 U K1=1.68 1994CGa (105674)1226

Method: fluorimetry

C32H38N4O6Cl2 HL CAS 172033-56-6 (8675)

2,2'-[1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diylbis(methylene)]bis[5-chloro-8-quinolinol]

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

K+ cal non-aq 25°C 100% C H 1995ZBa (105679)1227

K(K+HL)=6.61

Medium: methanol. DH(K)=-58.1 kJ mol⁻¹, DS(K)=-68.5 J K⁻¹ mol⁻¹.

C32H38N4O6Cl2 H2L (7214)

7,16-Bis((5-chloro-8-hydroxy-7-quinolinyl)methyl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	cal	alc/w	25°C	100%	U	H			1996BBf (105690)	1228
K(K+H2L)=3.39										
Medium: MeOH; 0.1 M Me4NCl. DH(K)=-24.4 kJ mol ⁻¹ . Data also for similar lariat ligands with substituted oxine side chains										

C32H40N4O4		L						CAS 340963-90-8	(8926)	
8,8'-[1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diylbis(methylene)bisquinoline];										

K+	cal	alc/w	25°C	100%	C	H		K1=4.58	2001DXa (105714)	1229
Medium: MeOH. DH(K1)=-39.1 kJ mol ⁻¹ , DS(K1)=-43.6 J K ⁻¹ mol ⁻¹ .										

C32H40N4O6		H2L						CAS 254900-38-4	(8920)	
7,16-Bis(8-hydroxyquinoline-2-ylmethyl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;										

K+	cal	alc/w	25°C	100%	C	H			1999SBg (105719)	1230
K(K+H2L)=5.88										
Medium: MeOH. DH(K)=-55.6 kJ mol ⁻¹ , DS(K)=-73.8 J K ⁻¹ mol ⁻¹ . K and DH(K) determined by competitive calorimetric titration.										

C32H40N6O6Cl2		H2L						CAS 254900-39-5	(8921)	
7,16-Bis(3-(5-chloro-2-hydroxyphenyl)pyrazol-1-ylmethyl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;										

K+	cal	alc/w	25°C	100%	C	H			1999SBg (105729)	1231
K(K+H2L)=3.82										
Medium: MeOH. DH(K)=-47.8 kJ mol ⁻¹ , DS(K)=-87.3 J K ⁻¹ mol ⁻¹ .										

C32H41N5O8		HL						CAS 552856-75-4	(8847)	
7-[2-Methoxy-4-[(4-nitrophenyl)azo]phenyl]-16-(2-methoxyphenyl)-1,4,10,13-tetraoxa-7,16-diazacyc;										

K+	sp	alc/w	RT	50%	C			K1=2.1	2002GLb (105734)	1232
Medium: 50% MeOH/H2O, pH 7.4 (0.1 M Tris buffer), 0.1 M Me4NCl.										

C32H43N2O7S		HL						CAS 189057-31-6	(7756)	
3-(4-Carboxybutyl)-2-[4-[N-(1,4,7,10,13-pentaoxa-16-azacyclooctadeca)]]styryl-benzo thiazolium;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	sp	non-aq	18°C	100%	C			K1=2.0	1997LHa (105756)	1233
Medium: acetonitrile.										

C32H44O12P2		L						CAS 112120-16-8	(5738)	
3,4:9,10:15,16-Tribenzo-1,18-di(diethoxyphosphinyl)-2,5,8,11,14,17-hexaoxaoctadeca-3.9.15-triene;										
K+	con	non-aq	25°C	100%	U			K1=4.9	1989BEa (105776)	1234
Medium: tetrahydrofuran/CHCl3 4:1 (volume)										

C32H46N2O8Cl2		L						CAS 181706-75-2	(8626)	
3,18-Dichlorododecahydro-5H,16H-6,15-(ethanoxyethanoxyethano)dibenzohexaoxadiazacyclohexacosine;										
K+	cal	non-aq	25°C	100%	C	H		K1=4.66	1998ZBc (105787)	1235
Medium: MeOH. DH(K1)=-43.1 kJ mol ⁻¹ , DS(K1)=-55.4 J K ⁻¹ mol ⁻¹ .										

C32H46O10		L						CAS 77846-54-9	(5820)	
Biphenyl bis-19-crown-5, Octadecahydro-benzopentaoxacyclononadecinobenzopentaoxacyclononadecane;										
K+	gl	non-aq	25°C	100%	U			K1=1.34 B2=1.22	1985RCa (105791)	1236
Medium: (CH3)2CO. L=Octadecahydro-4H,18H-[2,5,8,11,14]benzopentaoxacyclononadecino[18,17,16-pqr][2,5,8,11,14]benzopentaoxacyclononadecane										

C32H48N2O6		L						(2447)		
Bicyclo-NcN'-1,10-diaza-4,7,13,16-tetraoxa-octadecane;(c=(CH2.C6H4.O.C3H6)2)										
K+	gl	alc/w	25°C	93%	U			K1=2.9	1978WVa (105802)	1237
Medium: 93% MeOH/H2O										

C32H48N2O10		L						CAS 84992-99-4	(665)	
Diaminoethane-N,N'-dimethenyl-di-(benzo-15-crown-5);										
K+	cal	mixed	25°C	0.15M	C			K1=3.14	1986LWa (105805)	1238

C32H52O14P2		L						CAS 112120-15-7	(5730)	
1,13-Bis(2-(diethoxyphosphinylmethoxy)phenyl)-1,4,7,10,13,16-hexaoxahexadecane;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U		K1=5.1	1989EVa (105823)	1239
Medium: tetrahydrofuran/CHCl3 4:1 (volume)									

C32H55N013		L					CAS 105495-11-2	(1690)	
N-(2-(2-(4'-Benzo-18-crown-6)-oxyethoxy)ethyl-1,4,7,10,13-pentaoxa-16-azacyclooctadecane;									
K+	ISE	alc/w	25°C	10%	U		K1=4.66 B2=7.51	1986HAa (105832)	1240
Medium: 10% MeOH/H2O									

C32H58N2012		H2L					CAS 88454-81-3	(5409)	
2,11-Bis(carboxy)-3,12-bis(octanylformamide)-18-crown-6 (anti);									
K+	gl	alc/w	25°C	90%	U		K1=6.4 B(KHL)=11.8	1984FWa (105837)	1241
Medium: 90% v/v MeOH/H2O, 0.05 M R4NX									

C32H58N2012		H2L					CAS 88454-82-4	(5408)	
3,11-Bis-carboxy-2,12-bis(octanylformamide)-18-crown-6 (syn);									
K+	gl	alc/w	25°C	90%	U		K1=5.4 B(KHL)=11.0	1984FWa (105843)	1242
Medium: 90% v/v MeOH/H2O, 0.05 M R4NX									

C32H64N4010		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;									
K+	ISE	alc/w	25°C	95%	C		K1=4.8 K(KL+K)=3.9	1977LSc (105850)	1243
Medium: 95% (w/w) MeOH/H2O, 0.1 M Et4NBr.									

C32H66N204		L					CAS 79495-97-9	(6655)	
1,10-Didecyl-1,10-diaza-4,7,13,16-tetraoxacyclooctadecane;									
K+	con	non-aq	25°C	100%	C T H		K1=5.53	1997TAa (105862)	1244
Medium: acetonitrile. DH(K1)=-43.6 kJ mol ⁻¹ , DS(K1)=-39.5 J K ⁻¹ mol ⁻¹ .									

Data for 10-25 C.

K+ cal alc/w 25°C 100% U H 1986BUd (105863)1245
In MeOH. DH=-31.5 kJ mol⁻¹

C33H41N3O6 L (8027)

Tripodal ionophore ;

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

K+ sp non-aq 25°C 100% C 2001LFa (105923)1246

K(KP+L=LiPL)=3.42

Method: Analyses by spectrophotometry. Medium: chloroform. P is picrate.

C33H41N3O6Cl2 L CAS 181706-78-5 (8628)

3,18-Dichlorohexahydro(ethanoxyethanoxyethano)-23,27-nitrilodibenzotetraoxadiazacyclopentacosine;

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

K+ cal non-aq 25°C 100% C H K1=4.41 1998ZBc (105927)1247

Medium: MeOH. DH(K1)=-23.0 kJ mol⁻¹, DS(K1)=7.28 J K⁻¹ mol⁻¹.

C33H46N2O12 L (7049)

1,4-Diaza-1,4-di(5'-benzo-15-crown-5)-hepta-2,6-dione; CH2(CH2CONH.C14H19O5)2

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

K+ sp non-aq 25°C 100% U K1=9.20 1979K Mb (105981)1248

Medium: CHCl₃

C33H57N3O9 L Enniatin B CAS 917-13-5 (4177)

Enniatin B

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

K+ gl alc/w 20°C 100% U K1=2.93 1968WPa (105997)1249

Medium: MeOH, 1 M KI

C34H38N2O14 H2L (7072)

7,16-Bis(3-carboxy-6-methoxy-2-oxo-2H-1-benzopyran-7-yl)-1,4,10,13-tetraoxa-diazacyclooctadecane;

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

K+ sp none RT 0 U K1=1.66 1994CGa (106028)1250

Method: fluorimetry

C34H38O12P2 L (6906)

1,2:10,11:15,16:24,25-Tetrabenzo-13,27-di(methylphospha)-3,6,9,12,14,17,20,23,27,28

-10-crown-28

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+		oth non-aq	22°C	100%	U			K1=1.0	1978YSa (106039)	1251
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Medium: 1:1 v/v EtOH+CHCl₃. K as acetate salt

C34H40O6P2		L						CAS 137728-08-6	(6838)	
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1,14-Bis(diphenylphosphinyl)-3,5,8,11-tetraoxatetradecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+		con non-aq	25°C	100%	U			K1=5.0	1992BEa (106043)	1252
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Medium: THF+CHCl₃ (4:1 vol)

C34H40O7		L						CAS 488759-49-5	(9011)	
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cis-2,9-Dimethyl-2,9-bis[(1-naphthyloxy)methyl]-15-crown-5;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+		sp non-aq	25°C	100%	C			K1=3.87	2002NMa (106047)	1253
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Medium: THF, using metal picrate salt.

C34H40O7P2		L						(7894)		
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1,15-Bis(diphenylphosphinyl)-2,5,8,11,14-pentaoxopentadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+		con non-aq	25°C		C			K1=5.0	1999TEa (106050)	1254
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In: tetrahydrofuran/CHCl₃ 4:1 v/v

C34H42N2O6Cl2		L						CAS 181706-79-6	(8629)	
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3,18-Dichlorooctahydro-5H,16H-6,15-(ethanoxyethanoxyethano)tribenzotetraoxadiazacyc
lodocosine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+		cal non-aq	25°C	100%	C	H		K1=5.10	1998ZBc (106058)	1255
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Medium: MeOH. DH(K1)=-17.0 kJ mol⁻¹, DS(K1)=40.6 J K⁻¹ mol⁻¹.

C34H44N2O5		L						CAS 101671-92-5	(5825)	
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Trimethoxyphenylcryptand 3,1,1.

30,31,32-Trimethoxy-5,10,15-trimethyl-22,27-dioxo-1,9-diaza....

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+		nmr non-aq	25°C	100%	U			K1=11.00	1986CHc (106068)	1256
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Medium: CDCl₃

C34H46O10		L						CAS 210485-26-0	(3146)	
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15,31-Diethylhexadecahydroanthra[2,3-b:6,7-b']bis[1,4,7,10,13]pentaoxacyclopentadec
in;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	sp	mixed	20°C	80%	C			K1=5.65 K(KL+K)=2.27	19990Ba (106079)	1257

Medium: 80% v/v CHCl₃/MeOH.

C34H53O8Br H2L CAS 38784-08-6 (2336)
5-Bromolasalocid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	gl	alc/w	25°C	100%	M	H		K(K+HL)=3.49	1988PJa (106098)	1258

Also used K+ sensitive glass electrode. DH = -8.8 kJ mol⁻¹; DS = 37

C34H54O8 H2L Lasalocid CAS 25999-20-6 (2335)
Lasalocid acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	nmr	non-aq	20°C	100%	C			K(K+HL)=1.8	1998MLa (106138)	1259

Medium: CD₃OD. Method: ¹³C nmr.

K+	dis	oth/un	25°C	0.0	U			K1=2.1	1992LPb (106139)	1260
K+	gl	alc/w	25°C	100%	M	H		K(K+HL)=3.56 K(K+H2L)=1.3	1988PJa (106140)	1261

Medium: MeOH. Also using K+ sensitive glass elect. DH=-9.4 kJ mol⁻¹; DS=37

K+	gl	alc/w	25°C	100%	U			K(K+2HL)=3.45	1982BDc (106141)	1262
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Medium: MeOH

C34H58N4O14 H2L CAS 83458-45-1 (5569)
2,11-Dicarboxy-3,12-dipiperidinenitroxide-18-crown-6 derivative;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	nmr	alc/w	25°C	90%	U			K1=5.4 K(K+HL)=4.4	1987DDa (106171)	1263

Medium: 90% MeOH/H₂O. Syn-isomer

K+	nmr	alc/w	25°C	90%	U			K1=6.8 B2=11.90	1987DDa (106172)	1264
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Medium: 90% MeOH/H₂O. Anti-isomer

C34H60N4O12 H2L CAS 111216-14-9 (5570)
syn-2,11-Dicarboxy-3,12-dipiperidine-18-crown-6 derviative;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	nmr	alc/w	25°C	90%	U		K1=5.4 K(K+HL)=4.3 K(K+H2L)=4.2	1987DDa (106174)	1265

Medium: 90% MeOH/H2O

C34H64O10 H2L D218-6A2 CAS 88454-79-9 (5406)
11,12-Bis(dodecanyl)-1,2-bis(carboxy)-1,4,7,10,13,16-hexaoxacyclooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	alc/w	25°C	90%	U		K1=6.3 B(KHL)=12.1	1984FWa (106178)	1266

Medium: 90% v/v MeOH/H2O, 0.05 M R4NX

C34H68N4O8 L CAS 49811-34-9 (8578)
10,13,25,28,33,36,41,44-Octaoxa-1,7,16,22-tetraazatricyclo[20.8.8.87,16]hexatetraco
ntane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	alc/w	25°C	95%	C		K1=4.0 K(KL+K)=3.2	1977LSc (106181)	1267

Medium: 95% (w/w) MeOH/H2O, 0.1 M Et4NBr.

C35H45N9 L CAS 312304-65-7 (7962)
29,32,35-TriMe-1,14,29,32,35,38,39,40,41-Nonaazahexacyclohentetraconta-3,5,7,8,10,1
2,16,18,20,21,

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	R4N.X	25°C	0.10M	U		K1=3.6 K(KL+H)=9.8 K(KHL+H)=9.3	2001BBa (106202)	1268

Medium: 0.10 M NMe4NO3.

C36H30O3Si3 L CAS 512-63-0 (1285)
Hexaphenyl-cyclotrisiloxane; ((C6H5)2SiO)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	alc/w	25°C	100%	U		K1=<-0.3	19800Pa (106216)	1269

Medium: MeOH, 0.1 M Me4NBr

C36H32N2O6 L (5744)
5,6:11,12-Dibenzo-1,16-di(8-quinolyl)-1,4,7,10,13,16-hexaoxahexadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U			K1=5.8	1989BEa (106219)	1270
Medium: tetrahydrofuran/CHCl3 4:1 (volume)										

C36H36N24O12		L		Cucurbituril				CAS 283175-97-3	(6744)	
Cucurbit[6]uril;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	sol	none	25°C	dil	C			K1=2.85	2001BCf (106259)	1271
Method: dissolution of ligand in a 0.002-0.02 M KX solution; spectrophotometric measurement.										
K+	cal	mixed	25°C	50%	C	H		K1=2.79	1998BJb (106260)	1272
Medium: 50% (v/v) HCOOH/H2O. DH(K1)=-2.3 kJ mol-1.										
K+	sp	none	25°C	0	U			K1=2.75 B2=4.05	1994HKa (106261)	1273
K+	sol	none	25°C	0.0	U			K1=7.91	1992BCa (106262)	1274

C36H36O4P2		L						(2073)		
3-t-Butyl-1,2-dihydroxybenzene bis(diphenylphosphinylmethyl) ether										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U			K1=2.95	1989KSa (106280)	1275
Medium: tetrahydrofuran/CHCl3 4:1 (vol)										

C36H36O6P2		L						CAS 103990-64-3	(2077)	
1,2-Bis(2-(diphenylphosphinylmethoxy)ethoxy)benzol;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U			K1=4.02	1989KSa (106284)	1276
Medium: tetrahydrofuran/CHCl3 4:1 (vol)										

C36H40O4S2		L		ANAN(MSM)2ANAN				CAS 1129-04-9	(2240)	
Tetra(1,3-(2-methoxy-5-methylbenzo))-9,18-dithiacyclooctadeca-2,5,12,14-tetraene;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	dis	non-aq	25°C	100%	U	H			1979KLa (106294)	1277
K(K(picrate)+L)=3.28										
Medium: CHCl3										

C36H40O6		L		ANANAN(MOM)2ANAN				CAS 1129-07-2	(2238)	
Tetra(1,3-(2-methoxy-5-methylbenzo))-12,18-dioxacyclooctadeca-2,5,8,14-tetraene;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	dis	non-aq	25°C	100%	U	H		1979KLa (106300)	1278
							K(K(picrate)+L)=4.82		

Medium: CHCl3

C36H40O6 L ANAN(MOM)2ANAN CAS 1129-06-1 (2241)
Tetra(1,3-(2-methoxy-5-methylbenzo))-9,18-dioxacyclooctadeca-2,5,10,14-tetraene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	dis	non-aq	25°C	100%	U	H		1979KLa (106306)	1279
							K(K(picrate)+L)=3.38		

Medium: CHCl3

C36H44O7P2 L (5725)
1,17-Di(diphenylphosphinyl))-3,6,9,12,15-pentaoxaseptadecane;
Ph2PO.C2H4(O.C2H4)4OC2H4POPh2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U		K1=4.9	1992BEa (106334)	1280
Medium: THF+CHCl3 (4:1 vol)									

K+	cal	non-aq	25°C	100%	U		K1=2.75 B2=3.50	1991SGa (106335)	1281
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Medium: CH3CN; K as KNCS

C36H44O8P2 L (7895)
1,18-Bis(diphenylphosphinyl)-hexaoxooctadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C		C		K1=5.4	1999TEa (106344)	1282
In: tetrahydrofuran/CHCl3 4:1 v/v									

C36H47N3O6 L (8028)
Tripodal ionophore 2;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	non-aq	25°C	100%	C			2001Lfa (106374)	1283
							K(KP+L=LiPL)=3.20		

Method: Analyses by spectrophotometry. Medium: chloroform. P is picrate.

C36H48N2O6 L CAS 101695-36-7 (5826)
Trimethoxyphenylcryptand 3,2,1.
33,34,35-Trimethoxy-5,10,15-trimethyl-22,25,30-trioxa-1,19-diaza-

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ nmr non-aq 25°C 100% U K1=>14.57 1986CHc (106378)1284
In CDCl3

C36H52N2O10 L CAS 84993-03-3 (666)

Hexadamine-N,N'-dimethenyl-di-(benzo-15-crown-5);

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

K+ cal mixed 25°C 0.15M C K1=3.56 1986LWa (106393)1285

C36H52O14P2 L (5739)

3,4:12,13:21,22-Tribenzo-1,24-di(diethoxyphosphinyl)-2,5,8,11,14,17,20,23-octaoxate
tracosatriene;

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

K+ con non-aq 25°C 100% U K1=5.0 1989BEa (106396)1286

Medium: tetrahydrofuran/CHCl3 4:1 (volume)

C36H54O10 L CAS 86116-04-3 (5647)

1,8-Bis(4'-(2,3-benzo-1,4,7,10,13-pentaoxacyclopentadecane))-octane;

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

K+ ISE alc/w 25°C 90% U K1=4.17 B2=5.70 1987KHa (106418)1287

90% w/w MeOH/H2O. Also data for the 1,4,7,10-tetraoxadecane-bridged
ligand: K1=4.64; K2=2.01.

C36H56O6 L CAS 54535-81-8 (1263)

2,3:11,12-Bis(3',5'-di-tert-butylbenzo)-1,4,7,10,13,16-hexaoxacyclooctadecane;

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

K+ con alc/w 25°C 100% U I M 1979BDa (106436)1288

K(KCl+L)=3.20

Medium: MeOH. In DMSO: K(KClO4+L)=3.32. In MeCN: K(KBPh4+L)=4.04

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

K+ con non-aq 25°C 100% C H K1=2.97 1997PBb (106501)1289

Medium: acetonitrile. Additional method: potentiometry with ISE.

By calorimetry, DH(K1)=-22 kJ mol⁻¹, DS(K1)=-11 J K⁻¹ mol⁻¹.

K+ vlt non-aq 25°C 100% C I K1=9.7 1997WRa (106502)1290

Method: cyclic voltammetry. Medium: acetonitrile, 0.05 M Et4NClO4. In DMSO
K1=5.1; in acetone, K1=8.7; in hexamethylphosphoric triamide, K1=1.9.

K+ vlt non-aq 23°C 100% U I K1=9.7 1994FRa (106503)1291
Medium: MeCN. In PrCN: K1=9.2; acetone: 8.7; DMF: 7.3; Me-pyrrol.: 6.0;
NN-DMA: 5.6; DMSO: 5.1; Di-Et-formamide: 4.6; Di-Et-acetamide: 4.5; PC: 9.1

K+ ISE alc/w 25°C 100% M K1=4.97 1984CTa (106504)1292
Medium: MeOH

K+ ISE non-aq 25°C 100% M K1=7.35 1984CTa (106505)1293
Medium: N,N-dimethylformamide. In DMSO K1=5.05

K+ ISE alc/w 25°C 100% U K1=7.28 1984CTb (106506)1294
Medium: EtOH

K+ gl alc/w 25°C 100% U K1=5.18 1978HPa (106507)1295

K+ oth alc/w 25°C 100% U H K1=4.48 1971FCa (106508)1296
Method: micro-calorimetry. Medium: MeOH. DH=-16.2 kJ mol⁻¹, DS=31 J K⁻¹ mol⁻¹

K+ oth alc/w 25°C 100% U H K1=4.60 1971LFa (106509)1297
Method: micro-calorimetry. Medium: MeOH. DH=-15.6 kJ mol⁻¹, DS=35 J K⁻¹ mol⁻¹

K+ ISE alc/w ? 100% U K1=4.98 1970LWb (106510)1298
Medium: MeOH. In methylcellosolve/H₂O, 80:20, K1=3.82

C37H54N2O14 L (7050)
1,4-Diaza-1,4-di(5'-benzo-18-crown-6)-hepta-2,6-dione; CH₂(CH₂CONH.C16H23O6)2

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

K+ sp non-aq 25°C 100% U K1=8.03 1979KMb (106632)1299
Medium: CHCl₃

C38H32O3P2 L (6804)
1,3-Bis(2-Diphenylphosphinylphenyl)-2-oxapropane; O(CH₂.C₆H₄(PO.(C₆H₅)₂)

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

K+ con non-aq 25°C 100% U K1=3.2 1993BEb (106642)1300
Medium: THF+CHCl₃ 4:1(vol)

C38H32O4P2 L (1320)
1,4-Di(2-diphenylphosphinylphenyl)-1,4-dioxabutane;
Ph₂PO.C₆H₄.O.CH₂.CH₂.O.C₆H₄.P(O)Ph₂

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

K+ con non-aq 25°C 100% U K1=3.7 1991EBa (106648)1301
Medium: THF+CHCl₃ 4:1(vol)

C38H40O6P2 L (6833)

1,2-Bis(2-(2-(diphenylphosphinyl)ethoxy)ethoxy)benzene;
 C₆H₄(OCH₂CH₂OCH₂CH₂PO(C₆H₅)₂)₂

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U		K ₁ =4.6	1993EVa (106659)	1302
Medium: THF+CHCl ₃ (4:1 vol). Also data for other solvents									

C ₃₈ H ₄₈ O ₈ P ₂		L					CAS 145864-37-5	(6839)	
1,20-Bis(diphenylphosphinyl)-3,5,8,11,14,17-hexaoxaeicosane;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U		K ₁ =5.3	1992BEa (106680)	1303
Medium: THF+CHCl ₃ (4:1 vol)									

C ₃₈ H ₄₈ O ₉ P ₂		L					(7896)		
1,21-Bis(diphenylphosphinyl)-2,5,8,11,14,17,20-heptaoxoheneeicozane;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C		C		K ₁ =5.1	1999TEa (106685)	1304
In: tetrahydrofurane/CHCl ₃ 4:1 v/v									

C ₃₈ H ₅₂ N ₂ O ₇		L					CAS 101671-93-6	(5827)	
Trimethoxyphenylcryptand 3,2,2.									
36,37,38-Trimethoxy-5,10,15-trimethyl-22,25,30,33-tetraoxa-1,19-									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	nmr	non-aq	25°C	100%	U		K ₁ =13.93	1986CHc (106690)	1305
In CDCl ₃									

C ₃₈ H ₅₄ O ₁₀		L					CAS 210485-29-3	(3260)	
Hexadecahydro-15,31-bis(2-methylpropyl)anthra[2,3:6,7]bis[1,4,7,10,13]pentaoxacyclo pentadecin;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	mixed	20°C	80%	C		K ₁ =4.87 K(KL+K)=2.27	19990Ba (106699)	1306
Medium: 80% v/v CHCl ₃ /MeOH.									

C ₃₉ H ₅₀ N ₂ O ₁₆		L					CAS 332843-42-2	(8210)	
19,19'-(1,3-Propandiyl)bis(1,4,7,10,13,16-hexaoxacyclooctadecino[2,3]isoindole-18,2 0-dione;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	non-aq	25°C	100%	C		K ₁ =3.9	20010Ya (106721)	1307

Medium: methanol. For the 1,4-butanediyl- derivative, K1=4.1

C40H36O4P2 L (6805)
1,6-Bis(2-Diphenylphosphinylphenyl)-2,5-dioxahexane; (CH2.0.CH2.C6H4(P0(6H5)2)2

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

K+ con non-aq 25°C 100% U K1=3.2 1993BEb (106733)1308
Medium: THF+CHCl3 4:1(vol)

C40H36O5P2 L CAS 86341-96-0 (5724)
1,7-Di(2-diphenylphosphinyl)phenyl-1,4,7-trioxaheptane; Ph2P0.C6H4.0.C2H4.0.C2H4.0.C6H4.POPh2

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

K+ con non-aq 25°C 100% U K1=3.9 1991EBa (106745)1309
Medium: THF+CHCl3 4:1(vol). Data also for 1,4,7,10-tetraoxa,1,4,7,10,13-pentaoxa and 1,4,7,10,13,16-hexaoxa and 4-tributyl analogues

C40H44O4P2 L (2074)
3,5-Di(t-butyl)-1,2-dihydroxybenzene bis(diphenylphosphinylmethyl)ether

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

K+ con non-aq 25°C 100% U K1=2.66 1989KSa (106764)1310
Medium: tetrahydrofuran/CHCl3 4:1 (vol)

C40H46O7 L CAS 177723-37-4 (8912)
25,27-Diethoxycalix[4]arenecrown-5, 1,3-alternate;

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

K+ dis non-aq 22°C 100% C M K(KA+L(org))=KAL(org))=9.77 1996CPa (106771)1311

Medium: CHCl3 saturated with H2O. Method: extraction of KA into CHCl3/L solution. HA is picric acid. For the cone conformation, K=5.71.

C40H46O8 L CAS 161282-95-7 (8680)
25,27-Dimethoxycalix[4]arene-crown-6;

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

K+ sp non-aq 25°C 100% C K1=2.13 1995CUa (106776)1312
Medium: methanol, 0.01 M Et4NCl.

C40H48O8 L AN2DP(OEOEO)2E (2235)
3,4,5,6-Bis(3-methyl-5-(2-methoxy-5-methylbenzo))-2,7,10,13,16,19-hexaoxacyclodocosane-3,5-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	dis	non-aq	25°C	100%	U	H		1979KLa (106794)	1313

K(K(picrate))+L)=8.51

Medium: CHCl₃

C40H50N2O010 L CAS 143902-45-8 (8935)
Decamethylcucurbit[5]uril;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	cal	mixed	25°C	50%	C	H	K1=3.48	2000ZKb (106806)	1314

Medium: 50% v/v formic acid/H₂O. DH(K1)=-10 kJ mol⁻¹, DS(K1)=33 J K⁻¹ mol⁻¹.

C40H52N4O4 L CAS 205066-94-0 (8760)
Tetraphenyl-1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraethanol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	non-aq	25°C	100%	C		K1=4.10	1998WLc (106822)	1315

Medium: DMF, 0.05 M Et₄NClO₄.

C40H52O14P2 L CAS 127832-94-4 (5740)
2,3:9,10:15,16:21-Tetrabenzo-1,24-di(diethoxyphosphinyl)-2,5,8,11,14,17,20,23-octaoxatetracosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U		K1=5.2	1989BEa (106827)	1316

Medium: tetrahydrofuran/CHCl₃ 4:1 (volume)

C40H60N2O10 n L CAS 84993-07-7 (667)
15,15'-Decamethylenedinitrilodimethylidyne-bis-(octahydro-1,4,7,10,13-benzopentaoxa cyclopentadeci

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	cal	mixed	25°C	0.15M	C		K1=3.12	1986LWa (106831)	1317
K+	kin	alc/w	23°C	100%	U		K1=4.08	1982HLc (106832)	1318

Medium: MeOH. Data also for nonamethylene(K=4.65) and tetramethylene(K=4.18) analogues

C40H62O12 L CAS 86116-05-4 (5648)
1,8-Bis(4'-(2,3-benzo-1,4,7,10,13,16-hexaoxacyclooctadecane))-octane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	alc/w	25°C	90%	U		K1=4.98 B2=9.12	1987KH a (106835)	1319

90% w/w MeOH/H₂O. Also data for the 1,4,7,10-tetraoxadecane-bridged ligand: K₁=5.05; K₂=3.93.

C40H64O12 L Nonactin CAS 6833-84-7 (4179)
Nonactin

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	sp	non-aq	25°C	100%	C			K ₁ =4.15	1977CEb (106842)	1320
Method: temperature jump relaxation. Medium: MeOH.										
K+	vlt	non-aq	22°C	100%	U			K ₁ =4.43	1974RKd (106843)	1321
Medium: 0.025 NBu ₄ ClO ₄ in CH ₃ CN										
K+	cal	alc/w	25°C	100%	U	H		K ₁ =4.49	1973ZFa (106844)	1322
Method: micro-calorimetry. Medium: MeOH. DH=-43.6 kJ mol ⁻¹ , DS=-60.3 J K ⁻¹ mol ⁻¹ In EtOH: K ₁ =5.26, DH=-52.2 kJ mol ⁻¹ , DS=74.4 J K ⁻¹ mol ⁻¹										
K+	oth	alc/w	30°C	100%	U			K ₁ =3.59	1973ZFa (106845)	1323
Method: vapour pressure osmometry. Medium: MeOH. In EtOH, K ₁ =4.61										
K+	cal	alc/w	25°C	100%	U	H		K ₁ =4.30	1971FCa (106846)	1324
Method: micro-calorimetry. Medium: MeOH. DH=-45.9 kJ mol ⁻¹ , DS=-71 J K ⁻¹ mol ⁻¹										
K+	nmr	non-aq	17°C	100%	U			K ₁ =4.85	1970PCa (106847)	1325
Medium: KClO ₄ , acetone. With 0.5 mol fraction water, K ₁ =4.3										
K+	ISE	alc/w	20°C	100%	U			K ₁ =3.59	1968WPa (106848)	1326
Medium: MeOH, 0.1 M KSCN										
K+	oth	alc/w	30°C	100%	U			K ₁ =3.80	1967PWb (106849)	1327
Medium: MeOH, 0.1 M KSCN. Method: osmotic vapour pressure										

C40H68O11 HL CAS 28380-24-7 (5372)
Nigericin (Antibiotic K178);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	cal	alc/w	25°C	100%	U	H		K ₁ =5.6	1971LFa (106863)	1328
Method: micro-calorimetry. Medium: MeOH. DH=-4.1 kJ mol ⁻¹ , DS=93 J K ⁻¹ mol ⁻¹										
K+	ISE	alc/w	?	100%	U			K ₁ =5.18	1970LWb (106864)	1329
Medium: MeOH. In methylcellosolve:H ₂ O, 80:40, K ₁ =4.48										

C40H80O20 L (5376)
Dibenzo-60-crown-20;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	ISE	alc/w	25°C	100%	A			K ₁ =3.90	1971FRa (106868)	1330

Medium: MeOH

C41H42O6 L CAS 151832-07-4 (6874)
9-(Dimethylethyl)-29,30,31,32,33-pentamethoxy-23-oxahexacyclotritriacontapentadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	dis	non-aq	25°C	100%	U			1993HSa (106870)	1331
							K(K(picrate)+L)=7.72		

Medium: CDCl3. With 23-thia- analogue K=7.15

C41H66O12 L Monactin CAS 7182-54-9 (4180)
Monactin

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	non-aq	25°C	100%	C		K1=4.38	1977CEb (106887)	1332
Method: temperature jump relaxation. Medium: MeOH.									

K+	vlt	non-aq	22°C	100%	U		K1=4.78	1974RKd (106888)	1333
Medium: 0.025 NBu4ClO4 in CH3CN									

K+	oth	alc/w	30°C	100%	U		K1=4.04	1973ZFa (106889)	1334
Method: vapour pressure osmometry. Medium: MeOH. In EtOH, K1=4.46									

K+	oth	alc/w	30°C	100%	U		K1=5.5	1967PWb (106890)	1335
Medium: MeOH, 0.1 M KSCN. Method: osmotic vapour pressure									

C42H40O4P2 L (7153)
1,2-Bis(2-(2-(diphenylphosphinyl)ethyl)phenoxy)ethane

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	oth	non-aq	25°C	100%	U		K1=2.4	1995TEa (106911)	1336
Medium: THF:CHCl3 4:1 v/v. K as 2,4-dinitrophenolate									

C42H40O4P2 L (6809)
1,6-Bis(2-Diphenylphosphinylphenyl)-3,4-dimethyl-2,5-dioxahexane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U		K1=3.1	1993BEb (106916)	1337
Medium: THF+CHCl3 4:1(vol)									

C42H40O5P2 L CAS 163172-12-6 (2080)
Bis((2-diphenylphosphinylmethyl)phenyl)diethyleneglycol ether;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ con non-aq 25°C 100% U K1=3.9 1993BEb (106925)1338
Medium: THF+CHCl3 4:1(vol)

K+ con non-aq 25°C 100% U K1=4.01 1989KSa (106926)1339
Medium: tetrahydrofuran/CHCl3 4:1 (vol)

C42H4007P2 L CAS 95651-36-8 (2079)
1,7-Di(2-(diphenylphosphinylmethoxy)phenyl)-1,4,7-trioxaheptane;
(Ph2PO.CH2.O.C6H4.O.C2H4)20

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
K+ con non-aq 25°C 100% U K1=4.19 1989KSa (106935)1340
Medium: tetrahydrofuran/CHCl3 4:1 (vol)

K+ con non-aq 25°C 100% U K1=4.19 1989TKb (106936)1341
Medium: tetrahydrofuran/CHCl3 4:1 (volume)

C42H5007 L CAS 177723-38-5 (8793)
1,3-Diisopropoxycalix[4]arene-crown-5, 1,3-alternate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
K+ sp non-aq 25°C 100% C K1=>=10 2000PBa (106950)1342
Medium: MeOH.

K+ dis non-aq 22°C 100% C M 1996CPa (106951)1343
K(KA+L(org))=KAL(org))=9.83
Medium: CHCl3 saturated with H2O. Method: extraction of KA into CHCl3/L
solution. HA is picric acid. For the cone conformation, K=5.27.

C42H54015 L CAS 104512-99-4 (7749)
Tris-(15-Crown-5)triphenylene ;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
K+ ISE mixed 25°C 50% C K1=4.6 1991LMc (106969)1344
K(KL+K)=3.5
K(K2L+K)=1.7

Method: K ion selective glass electrode. Medium: 50% w/w MeOH/DMF.

C42H68N204 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]tetraoxadiazacyc
lohexadecine

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
K+ sp non-aq RT 100% C I K1=3.35 2000GDa (106973)1345
Medium: acetonitrile. In MeOH, K1=3.15.

C42H68O12 L CAS 20261-85-2 (5373)

Dinactin;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+	sp	non-aq	25°C	100%	C			K1=4.63	1977CEb (106980)	1346
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Method: temperature jump relaxation. Medium: MeOH.

K+	vlt	non-aq	22°C	100%	U			K1=5.24	1974RKd (106981)	1347
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Medium: 0.025 NBu4ClO4, CH3CN

K+	oth	alc/w	30°C	100%	U			K1=3.73	1973ZFa (106982)	1348
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Method: vapour pressure osmometry. Medium: MeOH

C43H42O4P2 L (7156)

1,3-Bis((2-diphenylphosphinyl)phenoxy)propane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+	oth	non-aq	25°C	100%	U			K1=2.4	1995TEa (106999)	1349
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Medium: THF:CHCl3 4:1 v/v. K as 2,4-dinitrophenolate. Also other similar ligands

C43H42O6P2 L (5734)

1,7-Di((2-diphenylphosphinylmethoxy)phenyl)-1,7-dioxheptane;

(Ph2PO.CH2O.C6H4.O.C2H4)2CH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+	con	non-aq	25°C	100%	U			K1=2.11	1989TKb (107004)	1350
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Medium: tetrahydrofuran/CHCl3 4:1 (volume)

C43H54N2O10 L (668)

4,4'-Diaminodiphenylmethane-N,N'-dimethenyl-di(3-benzo-15-crown-5);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+	cal	mixed	25°C	0.15M	C			K1=2.79	1986LWa (107010)	1351
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C43H70O12 L CAS 7561-71-9 (5374)

Trinactin;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+	vlt	non-aq	22°C	100%	U			K1=5.44	1974RKd (107031)	1352
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Medium: 0.025 NBu4ClO4 in CH3CN

C44H36O4P2 L (6810)

1,2-Bis(2-Diphenylphosphinylphenylmethoxy)benzene; C6H4(OCH2.C6H4(PO(C6H5)2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U		K1=2.4	1993BEb (107090)	1353
Medium: THF+CHCl3 4:1(vol)									

C44H42O6P2 L (6806)
1,12-Bis(2-Diphenylphosphinylphenyl)-2,5,8,11-tetraoxadodecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U		K1=4.4	1993BEb (107109)	1354
Medium: THF+CHCl3 4:1(vol)									

C44H44O5P2 L (5735)
1,7-Di((2-diphenylphosphinylmethoxy)phenyl)-4-oxaheptane; (Ph2PO.CH2O.C6H4.C3H6)2O

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U		K1=2?	1989TKb (107113)	1355
Medium: tetrahydrofuran/CHCl3 4:1 (volume)									

C44H44O5P2 L (5733)
1,7-Di(2-(diphenylphosphinylethyl)phenyl)-1,4,7-trioxaheptane;
(Ph2PO.C2H2.C6H4.OC2H4)2O

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	oth	non-aq	25°C	100%	U		K1=2.3	1995TEa (107117)	1356
Medium: THF:CHCl3 4:1 v/v. K as 2,4-dinitrophenolate									

K+	con	non-aq	25°C	100%	U		K1=2.11	1989TKb (107118)	1357
Medium: tetrahydrofuran/CHCl3 4:1 (volume)									

C44H44O6P2 L CAS 126763-09-5 (7790)
1,8-Bis[2-(diphenylphosphinylmethyl)phenoxy]-3,6-dioxaoctane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	cal	non-aq	25°C	100%	U H		K1=1.75 B2= 3.68	1998SBb (107127)	1358
Medium: MeCN Calorimetric titration of LiNCS. DH(K1)=-20.6 kJ mol ⁻¹ DH(B2)=-6.9									

C44H48O10 L CAS 155500-94-0 (7357)
5,17-Di-tert-butyl-26,28-bis(carboethoxymethoxy)calix[4]diquinone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	non-aq	23°C	100%	U		K1=4.8	1997BGa (107132)	1359
Medium: 4/1 v/v CH2Cl2/CH3CN; 0.1 M Bu4NBF4 Data also for other related calix[4]diquinones									

C44H50N2O6 L (9016)
4,13-Bis[2-(9-anthryloxy)ethyl]-4,13-diaza-18-crown-6;

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

K+ sp non-aq 20°C 100% C K1=5.85 2002MTb (107136)1360
Medium: methanol.

C44H50N2O10 H2L CAS 329183-28-0 (8807)
25,27-Bis(carboxymethoxy)-26,28-bis[(N,N-diethylaminocarbonyl)methoxy]calix[4]arene
;

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

K+ gl non-aq 25°C 100% C K1=4.89 2000ABb (107143)1361
B(K2L)=7.74

Medium: MeOH, 0.05 M Et4NClO4.

C44H52N4O8 L CAS 246035-33-6 (2925)
25,27-Bis(N,N-diethylaminocarbonylmethoxy)-26,28-bis(aminocarbonylmethoxy)calix[4]a
rene;

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

K+ sp non-aq 25°C 100% C K1=4.1 1999USa (107158)1362
Medium: MeOH, 0.10 M Et4NCl

C44H52O10 L CAS 163317-54-2 (9089)
1,3-Calix[4]-bis-crown-5;

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

K+ sp non-aq 25°C 100% C IH K1=4.47 1996AAe (107164)1363
Medium: acetonitrile. By calorimetry, DH(K1)= -59 kJ mol⁻¹, DS(K1)=-114
J K⁻¹ mol⁻¹. In 100% MeOH, K1=4.76, DH(K1)=-57.0, DS(K1)=-100.

C44H54O8 L CAS 162989-76-6 (8794)
1,3-Diisopropoxycalix[4]arene-crown-6, 1,3-alternate;

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

K+ sp non-aq 25°C 100% C K1=4.6 2000PBa (107170)1364
Medium: MeOH.

C44H54O8 L CAS 161282-98-0 (8679)
25,27-Bis(1-propyloxy)calix[4]arene-crown-6, 1,3-alternate;

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

K+ EMF non-aq 25°C 100% C K1=4.3 1995CUa (107175)1365
Medium: methanol, 0.01 M Et4NClO4. Method: Ag-competitive potentiometry.

C44H54O8 L CAS 161282-96-8 (8678)

25,27-Bis(2-propyloxy)calix[4]arene-crown-6, 1,3-alternate;

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

K+ sp non-aq 25°C 100% C H K1=4.5 1995CUa (107181)1366

Medium: methanol, 0.01 M Et4NCl. Alternative method: Ag-competitive potentiometry. By calorimetry, DH(K1)=-18.1 kJ mol⁻¹, DS(K1)=25 J K⁻¹ mol⁻¹.

C44H56O4 H4L (7294)

4-Tert-butyl-calix[4]arene;

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

K+ sp non-aq 25°C 100% U K1=1.2 1996ABa (107186)1367

Medium: MeCN

C44H72N4O8 L CAS 61894-23-3 (8580)

7,16:25,34-Bis(ethanoxyethanoxyethano)dibenzo[1,4,17,20,7,14,23,30]tetraoxatetraaza cyclodotriac..

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

K+ ISE alc/w 25°C 95% C K1=3.6 1977LSc (107193)1368

K(KL+K)=2.7

Medium: 90% (w/w) MeOH/H2O, 0.1 M Et4NBr. In H2O, K1=ca.1.5.

C45H39O3P3 L CAS 73218-92-5 (5679)

1,3,5-Tris(diphenylphosphinylmethyl)-benzene; C6H3(CH2.PO(C6H5)2)3

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

K+ con non-aq 25°C 100% U K1=4.0 1984YKa (107212)1369

Medium: tetrahydrofuran + CHCl3 4:1, K as 2,4-dinitrophenolate

C45H48N3O3P3 L CAS 90179-28-5 (5682)

N,N',N''-tris(Diphenylphosphinylmethyl)-1,4,7-triazacyclononane;

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

K+ con non-aq 25°C 100% U K1=3.2 1984YKa (107225)1370

Medium: tetrahydrofuran + CHCl3 4:1, K as 2,4-dinitrophenolate

C46H40O6P2 L (6814)

1,2-Bis((2-(2-diphenylphosphinyl)phenoxy)ethoxy)benzene;

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

K+ con non-aq 25°C 100% U K1=4.9 1991EBa (107240)1371
Solvent : Tetrahydrofuran + CHCl3 4:1(vol)

C46H46N2O4 L CAS 185118-12-1 (7824)
N,N'-Bis(1-pyrenylmethyl)-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane;

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

K+ sp mixed 25°C 90% C K(KSCN+L)=3.38 1997KKa (107249)1372

Method: fluorescence emission. Medium: MeOH/CHCl3 (9:1 v/v).

C46H46N2O16 H4L (7071)
7,16-Bis[2-(2,4-dicarboxyphenyl)-5-methoxy-1-benzofuran-6-yl]-tetraoxa-7,16-diazacyclooctadecane;

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

K+ sp none RT 0 U K1=2.22 1994CGa (107256)1373
Method: fluorimetry. L=7,16-bis[2-(2,4-dicarboxyphenyl)-5-methoxy-1-benzofuran-6-yl]-1,4,10,13-tetraoxa-7,16-diazacyclooctadecane

C46H46O7P2 L (6807)
1,15-Bis(2-Diphenylphosphinylphenyl)-2,5,8,11,14-pentaoxapentadecane;

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

K+ con non-aq 25°C 100% U K1=4.8 1993BEb (107259)1374
Medium: THF+CHCl3 4:1(vol)

C46H48O6P2 L (7155)
1,8-Bis(2-(2-(diphenylphosphinyl)ethyl)phenoxy)-3,6-dioxyoctane

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

K+ oth non-aq 25°C 100% U K1=2.8 1995TEa (107270)1375
Medium: THF:CHCl3 4:1 v/v. K as 2,4-dinitrophenolate. Also other similar ligands

C46H48O9P2 L CAS 95651-38-0 (2082)
1,5-Bis(2-(2-(diphenylphosphinylmethoxy)ethoxy)phenoxy)-3-oxapentane;

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

K+ con non-aq 25°C 100% U K1=4.73 1989KSa (107279)1376
Medium: tetrahydrofuran/CHCl3 4:1 (vol)

C48H44O8P2 L CAS 95651-37-9 (2081)
1,2-Bis(2-(2-(diphenylphosphinylmethoxy)phenoxy)ethoxy)benzol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U			1989KSa (107360)	1377
Medium: tetrahydrofuran/CHCl3 4:1 (vol)									

C48H5008P2	L						(6808)		
1,18-Bis(2-Diphenylphosphinylphenyl)-2,5,8,11,14,17-hexaoxananodecane;									
K+	con	non-aq	25°C	100%	U		K1=5.3	1993BEb (107364)	1378
Medium: THF+CHCl3 4:1(vol)									

C48H54010P4	L						CAS 97910-30-0 (2084)		
Tris((2-(diphenylphosphinylmethoxy)ethoxy)methyl)phosphine oxide;									
K+	con	non-aq	25°C	100%	U		K1=4.12	1989KSa (107387)	1379
Medium: tetrahydrofuran/CHCl3 4:1 (vol)									

C48H6008	H2L	R-Bu-Calixarene					CAS 147513-53-9 (6705)		
4-tert-Butylcalix[4]arenedicarboxylic acid;									
K+	gl	alc/w	25°C	100%	C		K1=4.7 B(K2L)=8.3 B(KHL)=12.4	1993ABb (107402)	1380
Medium: MeOH, 0.01 M Et4NClO4. Data also for di-tert-butyl ester									

C48H60012	L						CAS 157769-14-7 (9090)		
1,3-Calix[4]-bis-crown-6;									
K+	sp	non-aq	25°C	100%	C	IH	K1=4.12	1996AAe (107410)	1381
Medium: acetonitrile. By calorimetry, DH(K1)=-17 kJ mol-1, DS(K1)=23									
J K-1 mol-1. In 100% MeOH, K1=4.1, DH(K1)=-31.7, DS(K1)=-28.									

C48H60016	H4L						(8251)		
5,11,17,23-Tetrahydroxycalix[4]arene-bis(crown-6);									
K+	sp	non-aq	25°C	100%	C		K1=4.4	2001PCa (107415)	1382
Medium: methanol									

C48H96N204	L						CAS 72469-41-1 (5351)		

N,N-Dioctadecyl-N',N'-dipropyl-3,6-dioxaoctanediamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+		ISE oth/un	21°C	100%	C			K1=4.7	1999CPa (107446)	1383
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Medium: PVC/DOS ion selective electrode membrane (DOS: bis(2-ethylhexyl)-sebacate). Data for structurally related ionophores.

C52H64O12		H4L		R-Bu-Calixarene	CAS 113215-72-8				(6704)	
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5,11,17,23-Tetra-(t-butyl)-25,26,27,28-tetrakis[(hydroxycarbonyl)methoxy]calix[4]arene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+		gl alc/w	25°C	100%	C			K1=9.05	1993ABb (107489)	1384
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B(KHL)=19.77

B(KH2L)=29.35

B(KH3L)=37.35

In methanol; 0.01 M (CH₃CH₂)₄NClO₄

C52H68N4O8					CAS 150588-24-2				(3074)	
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25,26,27,28-Tetrakis-(N,N-diethylaminocarbonylmethoxy)calix[4]arene; L

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+		sp non-aq	25°C	100%	C	H		K1=5.0	1999USa (107498)	1385
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Medium: MeOH, 0.10 M Et₄NCl. DH(K₁)=-33.3 kJ mol⁻¹

C52H68N4O8		L							(4823)	
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25,27-Bis(N,N-diethylaminocarbonylmethoxy)-26,28-bis(N-butylaminocarbonylmethoxy)calix[4]arene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+		sp non-aq	25°C	100%	C			K1=2.2	1999USa (107507)	1386
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Medium: MeOH, 0.10 M Et₄NCl

C52H72O6		L							(9263)	
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5,11,17,23-Tetra(t-butyl)-25,27-dimethoxy-26,28-dimethoxyethoxycalix[4]arene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+		sp non-aq	25°C	100%	C			K1=3.36	2004BCb (107525)	1387
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Medium: acetonitrile, 0.01 M Et₄NClO₄.

C54H74O7		L							(7302)	
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25,27-Dimethoxy-4-tert-butylcalix[4]arene-crown-5;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+ dis non-aq 22°C 100% U K1=8.48 1996SCa (107541)1388

Medium: CHCl₃ saturated with H₂O

Data also for other substituted t-butylcalix[4]arene-crown-5 analogues

C54H90N6O18 L Valinomycin CAS 2001-95-8 (2142)

Valinomycin, Potassium Ionophore

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

K+ dis non-aq 22°C 100% C M 1996CPa (107549)1389

K(KA+L(org))=KAL(org))=9.35

Medium: CHCl₃ saturated with H₂O. Method: extraction of KA into CHCl₃/L solution. HA is picric acid.

K+ cal alc/w 25°C 100% U H K1=4.90 1977ILa (107550)1390

Medium: MeOH. DH(K1)=-19.0 kJ mol⁻¹

K+ sp alc/w 25°C 100% U K1=4.48 1972FEb (107551)1391

Medium: methanol/0.1M tetrabutyl-ammonium-perchlorate

K+ oth alc/w 25°C 100% U H 1971FCa (107552)1392

Method: micro-calorimetry. Medium: MeOH. DH=-19 kJ mol⁻¹

In EtOH: K1=6.08, DH=-37.2, DS=9.02 J K⁻¹ mol⁻¹

K+ gl alc/w 20°C 100% U K1=>3.9 1968WPa (107553)1393

Medium: MeOH, 1 M KI

C56H60O12 L CAS 157769-17-0 (9091)

1,3-Calix[4]-bis-benzo-crown-6;

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

K+ sp non-aq 25°C 100% C K1=4.32 1996AAe (107577)1394

Medium: acetonitrile.

C56H62O14 HL CAS 474540-94-8 (8852)

25,27-[4-Methyl-2-oxochromene-6,7-diylbis[2-(2-oxyethoxy)ethoxy]]-26,28-[ethylenebis[2-(2-oxyethoxy)ethoxy]]-

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

K+ oth non-aq RT 100% C I K1=5.03 2002LAa (107582)1395

K(KL+K)=2.47

B(K2L)=7.5

Method: fluorimetry. Medium: EtOH. In CH₃CN, K1=5.03, K(KL+K)=2.3,

B(K2L)=7.33.

C56H64O10 L CAS 405108-40-9 (8249)

1,2-Di-O-[2-(2-benzyloxyethoxy)ethyl]-3,4,5,6-tetra-O-benzyl-myo-inositol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	dis	non-aq	25°C	100%	C				2001SSb (107586)	1396

K(K.pic+L(org)=KL.pic)=0.72

Distribution of picrate salt into CHCl₃/HL.

K: K.pic(aq)+L(org)=KL.pic(org). Data for series of myo-inositol ligands

C56H7208	L	CAS 123311-74-0	(6160)
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Tetramethyl-t-butylcalix[4]arenetetraketone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	sp	alc/w	25°C	100%	U I			K1=3.1	1989ACb (107597)	1397

Medium: MeOH. In CH₃CN, K1=4.4

C56H72012	L	(8751)
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Tetramethyl-4-t-Butylcalix[4]arenetetraethanoate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	EMF	non-aq	25°C	100%	C IH			K1=4.01	1995DGa (107601)	1398

Medium: acetonitrile, 0.05 M Et₄NClO₄. Competitive method: Ag/Ag+ electrode. DH(K1)=-40.6 kJ mol⁻¹, DS=-59.4. Also data in benzonitrile.

C56H7808	L	CAS 122356-76-7	(8681)
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Tetra-tert-butyl-1,3-dimethoxycalix[4]arene-crown-6;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	sp	non-aq	25°C	100%	C			K1=2.54	1995CUa (107606)	1399

Medium: methanol, 0.01 M Et₄NCl.

C56H8008	L	(9259)
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5,11,17,23-Tetra(t-butyl)-25,26,27,28-tetramethoxyethoxycalix[4]arene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	sp	non-aq	25°C	100%	C H			K1=4.51	2004BCb (107613)	1400

Medium: acetonitrile, 0.01 M Et₄NClO₄. By calorimetry: DH(K1)=-28.3 kJ mol⁻¹, DS(K1)=-8.7 J K⁻¹ mol⁻¹.

C58H78011	HL	CAS 465527-74-6	(9287)
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7,13,19,25-Tetra-t-butyl-28-methoxy-27,29,30-triethylacetate-2,3-dihomo-3-oxacalix[4]arene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	sp	alc/w	25°C	100%	C			K1=2.6	2001MAa (107622)	1401

Medium: MeOH, 0.01 M Et₄NCl.

C58H80O10 L (9264)
 5,11,17,23-Tetra-t-butyl-25,27-di(2-methoxyethoxy)-26,28-di(ethylacetate)calix[4]arene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	sp	non-aq	25°C	100%	C	H		K1=5.06	2004BCb (107631)	1402

Medium: acetonitrile, 0.01 M Et4NClO4. DH(K1)=-44.5 kJ mol⁻¹, DS(K1)=-52.3 J K⁻¹ mol⁻¹.

 C60H54N06P3 L (8067)
 Tris[2-diphenylphosphoryl]phenoxyethylamine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	cal	non-aq	25°C	100%	U	H		K1=2.44 B2= 4.49	1998SBb (107638)	1403

Medium: MeCN Calorimetric titration of LiNCS. DH(K1)=-16.6 kJ mol⁻¹ DH(B2)=-13.1

 C60H80O12 L CAS 97600-39-0 (6158)
 Tetraethyl-4-t-butylcalix[4]arenetetraethanoate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	C	H		K1=4.35	2002ASc (107649)	1404

Medium: acetonitrile. DH(K1)=-42.56 kJ mol⁻¹, DS(K1)=-59.30 J K⁻¹ mol⁻¹.

K+	EMF	non-aq	25°C	100%	C	IH		K1=4.04	1995DGa (107650)	1405
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Medium: acetonitrile, 0.05 M Et4NClO4. Competitive method: Ag/Ag+ electrode. DH(K1)=-45.7 kJ mol⁻¹, DS=-76. Also data for tetrabutyl deriv.

K+	sp	alc/w	25°C	100%	U	I		K1=2.4	1989ACb (107651)	1406
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Medium: MeOH. In CH3CN, K1=4.5

 C60H82N2O10 L CAS 155377-20-1 (8806)
 5,11,17,23-Tetra-butyl-25,27-bis(carboxymethoxy)-bis[(N,N-diethylaminocarbonyl)methoxy]calix[4]arene

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
K+	gl	non-aq	25°C	100%	C			K1=4.81 B(K2L)=9.10	2000ABb (107666)	1407

Medium: MeOH, 0.05 M Et4NClO4.

C60H84N4O8 L CAS 246035-32-5 (2735)
 25,27-Bis(N,N-diethylaminocarbonylmethoxy)-26,28-bis(aminocarbonylmethoxy)-t-butylcalix[4]arene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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K+ sp non-aq 25°C 100% C K1=<1 1999USa (107679)1408
Medium: MeOH, 0.10 M Et4NCl

C62H84O14 L CAS 135581-11-2 (8630)
9,23-Dioxpentacyclo[23.3.1.13,7.111.15.117.21]dotriacontane, ethanoic acid
derivative;

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

K+ sp non-aq 25°C 100% C K1=3.9 1991ACc (107694)1409
Medium: acetonitrile, 0.01 M Et4NClO4.

C62H111N11O12 L CAS 59865-13-3 (9048)
Cyclosporin A;

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

K+ oth non-aq 25°C 100% C K1=<1 2003CGa (107717)1410
Method: CD titration. Medium: acetonitrile.

C63H60N06P3 L (8437)
Tris[2-(diphenylphosphorylmethyl)phenoxyethyl]amine;

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

K+ cal non-aq 25°C 100% U H K1=2.02 B2= 5.01 1998SBb (107719)1411
Medium: MeCN Calorimetric titration of LiNCS. DH(K1)=-12.6 kJ mol⁻¹
DH(B2)=-4.3

C64H60O12 L CAS 211870-40-5 (4258)
Calix[4]arene-bis(dibenzo)crown-6;

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

K+ sp non-aq 25°C 100% C H K1=5.22 1999Lda (107734)1412
B(K2L)=8.05

Medium: acetonitrile, 0.01 M Et4NClO4
By calorimetry, DH(K1)=-10.7 kJ mol⁻¹, DH(K2L)=-23.8 kJ mol⁻¹

C64H62O6P4 L (6813)
1,2-Bis(4,5-di(diphenylphosphinyl)-pent-1-oxy)benzene;

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

K+ con non-aq 25°C 100% U K1=3.1 1990EAb (107739)1413
Medium: THF+CHCl3 4:1(vol). Metal as 2,4-dinitrophenolate

C64H64O12 L CAS 162898-44-4 (9092)
1,3-Calix[4]-bis-naphtho-crown-6;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	non-aq	25°C	100%	C		K1=4.2	1996AAe (107744)	1414
Medium: acetonitrile.									

C64H64016		L					CAS 474540-93-7 (8853)		
25,27:26,28-Bis[4-methyl-2-oxochromene-6,7-diylbis[2-(2-oxyethoxy)ethoxy]]calix[4]arene;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	oth	non-aq	RT	100%	C	I	K1=4.81 K(KL+K)=2.46 B(K2L)=7.29	2002LAa (107749)	1415
Method: fluorimetry. Medium: EtOH. In CH3CN, K1=4.25, K(KL+K)=2.19, B(K2L)=6.44.									

C64H72N404P4		L					CAS 104786-07-4 (2065)		
1,4,7,10-Tetra(diphenylphosphinyylethyl)-1,4,7,10-tetraazacyclododecane;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	con	non-aq	25°C	100%	U		K1=5.04	1986STb (107752)	1416
Medium: THF:CHCl3 4:1 v/v. M as 2,4-dinitrophenolate									

C64H8006		L					(9262)		
5,11,17,23-Tetra-t-butyl-25,27-di(phenylmethoxy)-26,28-di(2-methoxyethoxy)-calix[4]arene;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	non-aq	25°C	100%	C	H	K1=2.69	2004BCb (107761)	1417
Medium: acetonitrile, 0.01 M Et4NClO4. DH(K1)=-8.4 kJ mol-1, DS(K1)=23.1 J K-1 mol-1.									

C64H8607		L					CAS 182684-17-9 (7455)		
4-tert-Butylcalix[5]crown-4 trimethylester;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	alc/w	25°C	100%	U		K1=2.82	1996AAc (107768)	1418
Medium MeOH, 0.1M Et4NCl. Data also for the crown-5 and crown-6 analogues									

C66H8008		L					(9261)		
5,11,17,23-Tetra(t-butyl)-25,27-diethoxycarbonylmethoxy-26,28-diphenylmethoxycalix[4]arene;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	non-aq	25°C	100%	C		K1=2.90	2004BCb (107776)	1419

Medium: acetonitrile, 0.05 M Bu₄NClO₄. Method: by competition with Ag⁺.

4-tert-Butylcalix[4]arene tetracyrrolidinylamide:

Medium: 100% Methanol. $\Delta H(K1) = -32.6 \text{ kJ mol}^{-1}$, $\Delta S(K1) = -6 \text{ J K}^{-1} \text{ mol}^{-1}$.

C68H9608 | (6161)

Tetra-*t*-butyl]-4-*t*-butylcalix[4]arenetetraketone:

Medium: MeOH, 0.1 M Et₄NCl

25 26 27 28-Tetrakis(butoxycarbonylmethoxy)-5, 11, 17, 23-tetra-*t*-butylcalix[4]a

Medium: MeOH, 0.01 M Et₄NClO₄. Data also for many substituted p-tert-butyl-

25 27-Bis(N,N-diethylaminocarbonylmethoxy)-26,28-bis(N-butylaminocarbonylmethoxy)-2,6,11,13-tetraoxa-4,10-diphospha-1,9-dioxabicyclo[3.3.1]nonane

Medium: MeOH, 0.10 M Et₄NCl

4-tert-Butylcalix[4]arene tetradiethylacetamide:

K+ cal alc/w 25°C 100% U IH 1995ABc (107813)1425
 Medium: 100% Methanol. DH(K1)=-42.4 kJ mol⁻¹, DS(K1)=-31 J K⁻¹ mol⁻¹.
 In acetonitrile, K1>8.5, DH(K1)=-64 kJ mol⁻¹, DS(K1)=>-52 J K⁻¹ mol⁻¹.

K+ dis non-aq 20°C 100% C M 1988AGa (107814)1426
 K(K+A+L(org))=KAL(org))=7.45

Method: extraction of metal picrate into CHCl₃/L solution. HA is picric acid.

 C69H102N4O9 L CAS 116352-85-3 (9286)
 para-t-Butyldihomooxacalix[4]arene tetra(diethyl)amide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ EMF alc/w 25°C 100% C H K1=6.73 2004MFa (107834)1427
 Competitive potentiometry with Ag+. Medium: MeOH, 0.01 M Et₄NCI.
 By calorimetry, DH(K1)=-38.1 kJ mol⁻¹, DS(K1)=0 J K⁻¹ mol⁻¹.

 C72H68O10P4 L CAS 88928-02-3 (5680)
 Tetrakis-4',5',4'',5''-(diphenylphosphinylmethyl)-2,3:11,12-dibenzo-18-crown-6;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ con non-aq 25°C 100% U K1=3.95 1985YKa (107846)1428
 Medium: EtOH+CHCl₃ 1:1; M is used in nitrophenolate form

 C73H88O7 L Calixspherand CAS 154747-96-3 (7186)
 2,26,31,41-Tetrakis(1,1-dimethylethyl)-45-ethoxy-35,38,44,46-tetramethoxy-9,14,19-trimethylcalix-

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ kin mixed 25°C 0 U 1994BHb (107852)1429
 K(KX+L)=10.41

Medium: CDCl₃, saturated with H₂O. X=picrate Data also for 2 analogues calixspherands

 C75H100O15 L CAS 152495-34-6 (7033)
 Penta-tert-butylpentakis(ethoxycarbonylmethoxy)calix[5]arene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ EMF alc/w 25°C 100% U K1=5.3 1993BMa (107859)1430
 Medium: MeOH, 0.1 M Et₄NCI₀₄.

 C76H80O8 L (6162)
 5,11,17,23-Tetra-t-butyl-25,26,27,28-tetra(benzoyl)methoxycalix[4]arene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+ sp non-aq 25°C 100% U K1=5.1 1989ACb (107869)1431
Medium: CH3CN

C76H98N2O16 L CAS 170514-24-6 (7124)

25,27-Bis((4-benzo-15-crown-5)aminocarbonylmethoxy)calix[4]arene;

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

K+ nmr non-aq RT 100% U 1995BDa (107875)1432

K(KL(PF6)+Cl)=3.54

K(KL(PF6)+NO3)=3.11

K(KL(PF6)+HSO4)=3.75

K(KL(PF6)+H2PO4) > 4

Medium: CD3CN

C77H82O9 L CAS 253317-20-3 (9288)

p-Tert-butylldihomooxalix[4]arene tetraphenylketone;

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

K+ sp alc/w 25°C 100% C I K1=4.0 1999MAb (107893)1433

Medium: MeOH, 0.01 M Et4NCl. In acetonitrile, K1=3.4.

C78H90O10P2 L CAS 160638-26-6 (9130)

5,11,17,23-Tetra-t-butyl-bis(diethylcarbamoylmethoxy)-bis(diphenylphosphinoylmethoxy)calix[4]arene

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

K+ sp alc/w 20°C 100% C K1=3.69 2003YVa (107899)1434

Medium: 100% EtOH, 0.01 M Et4NBr. Ligand is cone isomer. For paco isomer, K=4.21. Also data for bis(diethyl ester) analogues.

C80H112O24 L CAS 175349-59-4 (7498)

C-Heptylcalix[4]resorcinarene octa-alpha-(methyl ethanoate);

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

K+ dis non-aq 25°C 100% U 1995FDa (107904)1435

K=4.12

Medium: CDCl3. Method: by H2O/CDCl3 extraction of picrate salt.

K: MA(org)+L(org)=MLA(org) where A=picrate.

C85H80O15 L CAS 269057-77-4 (3302)

5,11,17,23,29-Pentabenzylcalix[5]arene-31,32,33,34,35-pentaethanoate pentamethyl ester;

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

K+ sp non-aq 25°C 100% C I K1=5.15 2000AAa (107911)1436

Medium: methanol, 0.01 M Et4NCl. Also data for acetonitrile, 0.01 M Et4NCl and for the pentaethyl ester.

C85H120O15 L CAS 152495-35-7 (7034)

Penta-tert-butylpentakis(tert-butoxycarbonylmethoxy)calix[5]arene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	EMF	alc/w	25°C	100%	U		K1=6.1	1993BMa (107916)	1437

Medium: MeOH, 0.1 M Et4NClO4.

C88H78N2O12 L CAS 351183-45-4 (8252)

1,3-Calix[4]bis(10-cyano-9-anthrylmethyl-o-benzocrown-6);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	mixed	25°C	50%	C		K1=5.7 K(KL+K)=2.7	2001JDa (107921)	1438

Medium: 50% v/v CH2Cl2/MeOH, 0.01 M benzyl(trimethyl)ammonium hydroxide.

Method: fluorescence spectroscopy.

C88H96N8O12S4 L CAS 639027-46-6 (9277)

Tetra(benzoylthiocarbamido)cavitand;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	ISE	NaCl	rt	0.01M	C		K1=<2	2003MGa (107927)	1439

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
K+	ISE	NaCl	rt	0.01M	C		K1=<3	2003MGa (107935)	1440

Method: segmented sandwich membrane ISE.

C90H120O18 L CAS 92003-62-8 (6159)

Hexaethyl-4-t-butylcalix[6]arenehexaethanoate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	cal	non-aq	25°C	100%	C		K1=6.14	1997DZa (107940)	1441

Medium: benzonitrile. DH(K1)=-47.68 kJ mol⁻¹, DS(K1)=-42.4 J K⁻¹ mol⁻¹.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	sp	non-aq	25°C	100%	U	I	K1=5.1	1989ACb (107941)	1442

Medium: CH3CN

C90H130O15 L CAS 269057-78-5 (3334)

5,11,17,23,29-Penta-tert-octylcalix[5]arene-31,32,33,34,35-pentaethanoate

pentamethyl ester;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+		EMF non-aq	25°C	100%	C	I	K1=5.29	2000AAa (107950)	1443

Medium: methanol, 0.01 M Et4NCl. Method: by competition with Ag+.
Also data for acetonitrile, 0.01 M Et4NCl and the pentaethyl ester.

C96H144O24 L CAS 169888-22-6 (7534)
C-Undecylcalix[4]resorcinarene octa-alpha-(methyl ethanoate);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+		dis non-aq	25°C	100%	U		K=4.01	1995FDa (107965)	1444

Medium: CDCl3. Method: by H2O/CDCl3 extraction of picrate salt.
K: MA(org)+L(org)=MLA(org) where A=picrate.

C104H160O24 L CAS 175349-60-7 (7494)
C-Heptylcalix[4]resorcinarene octa-alpha-(tert-butyl ethanoate);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+		dis non-aq	25°C	100%	U		K=4.60	1995FDa (107977)	1445

Medium: CDCl3. Method: by H2O/CDCl3 extraction of picrate salt.
K: MA(org)+L(org)=MLA(org) where A=picrate.

C104H168N8O16 L CAS 175349-61-8 (7483)
C-Heptylcalix[4]resorcinarene octa-alpha-(N,N-diethyl acetamide);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+		dis non-aq	25°C	100%	U		K=5.76	1995FDa (107982)	1446

Medium: CDCl3. Method: by H2O/CDCl3 extraction of picrate salt.
K: MA(org)+L(org)=MLA(org) where A=picrate.

C112H120N4O16P4 L CAS 195455-62-0 (9276)
1,21,23,25-Tetrapentyl-7,11,15,28-tetra[(diphenylphosphinyl)acetamidomethylene]
cavitand;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+		ISE NaCl	rt	0.01M	C		K1=6.7	2003MGa (107991)	1447

Method: segmented sandwich membrane ISE.
Phosphonic acid diethyl ester derivative: K1=10.2

C120H192O24 L CAS 175349-58-3 (7495)
C-Undecylcalix[4]resorcinarene octa-alpha-(tert-butyl ethanoate);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	dis	non-aq	25°C	100%	U			1995FDa (108008)	1448

K=4.65

Medium: CDCl₃. Method: by H₂O/CDCl₃ extraction of picrate salt.

K: MA(org)+L(org)=MLA(org) where A=picrate.

C120H200N8O16 L CAS 169888-21-5 (7490)

C-Undecylcalix[4]resorcinarene octa-alpha-(N,N-diethyl acetamide);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	dis	non-aq	25°C	100%	U			1995FDa (108019)	1449

K=5.73

Medium: CDCl₃. Method: by H₂O/CDCl₃ extraction of picrate salt.

K: MA(org)+L(org)=MLA(org) where A=picrate.

Polymer H2L X-14885A (4547)

Antibiotic X14885A, calcium ionophore

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	alc/w	25°C	100%	U		K1=3.0	1989ABb (108075)	1450

Medium: MeOH

Polymer Enniatin A CAS 2303-13-1 (4176)

Enniatin A

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	alc/w	20°C	100%	U		K1=3.08	1968WPa (108164)	1451

Medium: MeOH, 1 M KI

Polymer Myosin A (3529)

Myosin A;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	EMF	oth/un	5°C	?	U T		K1=2.9 B2=5.20	1957LSa (108261)	1452

For Myocin B, 5 C: K1=2.9, K2=2.3; 27 C: K1=2.9, K2=1.7

Polymer (4181)

Phosphatidic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
K+	gl	oth/un	24°C	0.10M	U		K1=0.9	1966AKa (108270)	1453

Polymer (4204)

Pyruvate kinase;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	sp	R4N.X	25°C	0.10M	U		K'=0.92	1966SSc (108403)	1454
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Medium: Me4NCl. See reference for definitions

Polymer (1966)
poly(Benzo-1,4,7,10,13,16-hexaoxacyclooctadecane)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	sp	non-aq	25°C	100%	U		K1=8.39	1979KMb (108425)	1455
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Medium: CHCl3

Polymer (1965)
poly(Benzo-1,4,7,10,13-pentaoxacyclopentadecane)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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K+	sp	non-aq	25°C	100%	U		K1=10.3	1979KMb (108429)	1456
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Medium: CHCl3

REFERENCES

- 2005ZZa T Zelenina,O Zelenin; Koord.Khim.,31,253 (2005)
2004BCb L Baklouti,J Cherif,R Abidi,F Arnaud-Neu; Org.Biomol.Chem.,2,2786 (2004)
2004KVa T Kirichenko,V Vetrogon,N Lukyanenko; Anal.Chim.Acta,505,277 (2004)
2004MFa P Marcos,S Felix,J Ascenso,M Segurado; New J.Chem.,28,748 (2004)
2004WTa Y Wu,M Tabata; J.Solution Chem.,33,777 (2004)
2004ZTa J Zolgharnein,H Tahmasebi,M Habibi; J.Inclusion Phenom.,49,231 (2004)
2003ADa F Arnaud-Neu,R Delgado,S Chaves; Pure & Appl.Chem.,75,71 (2003)
2003AGa P Agnihotri,B Ganguly,P Paul,P Ghosh; Indian J.Chem.,42A,2439 (2003)
2003CGa R Cusack,L Grondahl,D Fairlie,L Gahan; J.Inorg.Biochem.,97,191 (2003)
2003GHa J Geue,N Head,A Ward,S Lincoln; Aust.J.Chem.,56,917 (2003)
2003KUa Y Kudo,J Usami,S Katsuta,Y Takeda; Talanta,59,1213 (2003)
2003MGa E Malinowska,L Gorski,D Wojciechowska; New J.Chem.,27,1440 (2003)
2003YVa M Yaftian,M Vahedpour,H Abdollahi; J.Inclusion Phenom.,47,129 (2003)
2002ASc M Ashram; J.Inclusion Phenom.,42,25 (2002)
2002CFb F Cecconi,C Frassinetti,P Gans,A Sabatini; Polyhedron,21,1481 (2002)
2002GLb T Gunnlaugsson,J Leonard; J.Chem.Soc.,Perkin Trans.,II,1980 (2002)
2002GVC S Gromov,A Vedernikov,E Ushakov,U Edlund; Helv.Chim.Acta,85,60 (2002)
2002IIa K Ishimori,H Imura,K Ohashi; Anal.Chim.Acta,454,241 (2002)
2002KCa I Kolthoff,M Chantooni,A Jyo; Talanta,57,869 (2002)
2002Kta S Katsuta,H Tachibana,Y Takeda; J.Solution Chem.,31,499 (2002)
2002LAa I Leray,Z Asfari,J Vicens,B Valeur; J.Chem.Soc.,Perkin Trans.,II,1429 (2002)
2002MRd G Markl,J Reisinger,P Kreitmeier; Helv.Chim.Acta,85,1714 (2002)
2002MTb G McSkimming,J Tucker,J Desvergne; Chem.Eur.J.,8,3331 (2002)

- 2002NMa Y Nakatsuji, M Muraoka, H Kajiya, W Zhang; *Bull.Chem.Soc.Jpn.*, 75, 1765 (2002)
- 2002PLa K Popov, L Lajunen, A Popov et al; *Inorg.Chem.Comm.*, 5, 223 (2002)
- 2002THb Y Takeda, K Hashimoto, D Yoshiyama; *J.Inclusion Phenom.*, 42, 313 (2002)
- 2002TYa Y Takeda, A Yasui, M Morita, S Katsuta; *Talanta*, 56, 505 (2002)
- 2002YEa G Yapar, C Erk; *J.Inclusion Phenom.*, 42, 145 (2002)
- 2002YEb G Yapar, C Erk; *J.Inclusion Phenom.*, 43, 299 (2002)
- 2002YPc V Yam, Y Pui, K Cheung, N Zhu; *New J.Chem.*, 26, 536 (2002)
- 2002ZRa I Zaitseva, A Rudenko et al.; *Zh.Fiz.Khim.*, 76, 416 (2002)
- 2001AVa L Antonov, M Vladimirova, M Mitewa; *J.Inclusion Phenom.*, 40, 23 (2001)
- 2001BBa C Bazzicalupi, A Bencini, A Bianchi, F Pina; *Inorg.Chem.*, 40, 6172 (2001)
- 2001BCf H Buschmann, E Cleve, K Jansen, A Wego; *J.Inclusion Phenom.*, 40, 117 (2001)
- 2001BSa V Bhat, A Srivastava; *J.Chem.Eng.Data*, 46, 1215 (2001)
- 2001BSb K Brandt, P Seliger, A Grzejdziak; *Inorg.Chem.*, 40, 3704 (2001)
- 2001DXa N Dalley, G Xue, J Bradshaw, X Zhang; *J.Heterocyclic Chem.*, 38, 1 (2001)
- 2001INa H Inerowicz; *J.Inclusion Phenom.*, 39, 211 (2001)
- 2001JDa H-F Ji, R Dabestani, G Brown, R Hettich; *J.Chem.Soc., Perkin Trans.II*, 585 (2001)
- 2001KMb S Katsuta, T Motoyama, Y Takeda, M Ouchi; *Bull.Chem.Soc.Jpn.*, 74, 311 (2001)
- 2001LFa H-J Lu, Y-T Fan, Y-J Wu; *Polyhedron*, 20, 3281 (2001)
- 2001LWa L-D Li, Y Wei, A-J Tong; *Anal.Chim.Acta*, 427, 29 (2001)
- 2001MAa P Marcos, J Ascenso, M Segurado, J Pereira; *Tetrahedron*, 57, 6977 (2001)
- 2001OYa J Otsuki, T Yamagata, K Ohmuro, K Araki; *Bull.Chem.Soc.Jpn.*, 74, 333 (2001)
- 2001PCa S Pellet-Rostaing, F Chitry, M Lemaire; *J.Chem.Soc., Perkin Trans.II*, 1426 (2001)
- 2001SSa L Safonova, D Sakharov, L Shmukler; *Phys.Chem.Chem.Phys.*, 3, 819 (2001)
- 2001SSb K Sureshan, M Shashidhar, A Varma; *J.Chem.Soc., Perkin Trans.II*, 2298 (2001)
- 2001WBa J Weeks, M Buntine, S Lincoln; *J.Chem.Soc., Dalton Trans.*, 1939 (2001)
- 2001ZKb I Zaitseva, E Kabakova, N Bondarev; *Zh.Fiz.Khim.*, 75, 2142 (2001)
- 2000AAa F Arnaud-Neu, Z Asfari, B Souley; *J.Chem.Soc., Perkin Trans.II*, 495 (2000)
- 2000ABb F Arnaud-Neu, S Barbosa, A Casnati; *New J.Chem.*, 24, 967 (2000)
- 2000GDa L Goldenberg, N Denisov, J Biernat; *J.Inclusion Phenom.*, 38, 171 (2000)
- 2000ICa H Inerowicz, J Chojnacki, A Merz; *J.Inclusion Phenom.*, 38, 123 (2000)
- 2000KBb E Kempen, J Brodbelt; *Anal.Chem.(USA)*, 72, 5411 (2000)
- 2000Ksa Y Kikuchi, Y Sakamoto; *Anal.Chim.Acta*, 403, 325 (2000)
- 2000MTa L Manege, T Takayanagi, M Oshima; *Analyst*, 125, 699; 1928 (2000)
- 2000PBa L Prodi, F Bolletta, M Montalti, A Casnati; *New J.Chem.*, 24, 155 (2000)
- 2000TMb Y Takeda, Y Mochizuki, Y Matsuzaki; *J.Inclusion Phenom.*, 37, 179 (2000)
- 2000YYa S Yajima, T Yahata, Y Takeda; *J.Inclusion Phenom.*, 38, 305 (2000)
- 2000ZKb X Zhang, K Krakowiak, J Bradshaw, R Izatt; *Ind.Eng.Chem.Res.*, 39, 3516 (2000)
- 1999BHa H Buschmann, J Hermann, H Plenio; *Chem.Eur.J.*, 5, 2566 (1999)
- 1999CPa A Ceresa, E Pretsch; *Anal.Chim.Acta*, 395, 41 (1999)
- 1999DCa A Danil de Namor, E Castellano, L Salazar; *Phys.Chem.Chem.Phys.*, 1, 285 (1999)
- 1999DGa C de Stefano, A Gianguzza, D Piazzese; *Anal.Chim.Acta*, 398, 103 (1999)
- 1999DSd A D'Aprano, B Sesta, V Mauro, M Salomon; *J.Inclusion Phenom.*, 35, 451 (1999)
- 1999EDa S Eltsov, A Doroshenko, N Bondarev; *Zh.Neorg.Khim.*, 44, 329 (1999)
- 1999ESa V Evreinov, Z Safronova, A Yarkevich et al; *Zh.Obshch.Khim.*, 69, 1088 (1999)
- 1999FKb S Filipek, M Kalinowski; *J.Coord.Chem.*, 48, 147 (1999)
- 1999JDa D Janecki, K Doktor, T Michalowski; *Talanta*, 48, 1191 (1999)

- 1999KCa I Kolthoff, M Chantooni, G Roland; *J. Coord. Chem.*, 48, 207 (1999)
- 1999KKb Y Kikuchi, M Kubota, K Sawada; *Bull. Chem. Soc. Jpn.*, 72, 2437 (1999)
- 1999Lda V Lamare, J-F Dozol, S Fuangswasdi; *J. Chem. Soc., Perkin Trans. II*, 271 (1999)
- 1999MAb P Marcos, J Ascenso, M Segurado, J Pereria; *J. Phys. Org. Chem.*, 12, 695 (1999)
- 1999MTd L Manege, T Takayanagi, M Oshima; *Bull. Chem. Soc. Jpn.*, 72, 1301 (1999)
- 1999OBa R Ostaszewski, A Bozek, M Palys; *J. Chem. Soc., Perkin Trans. II*, 1193 (1999)
- 1999OCa T Ojkova, C Christov, D Mihov; *Monatsh. Chem.*, 130, 1061 (1999)
- 1999RGa A Rouhollahi, M Ganjali, M Shamsipur; *J. Inclusion Phenom.*, 33, 361 (1999)
- 1999Rmb G Rounaghi, F Milani-Nejad, K Taheri; *Indian J. Chem.*, 38A, 568 (1999)
- 1999SBF N Su, J Bradshaw, X Zhang, P Savage; *J. Org. Chem.*, 64, 3825 (1999)
- 1999SBg N Su, J Bradshaw, X Zhang, H Song, P Savage; *J. Org. Chem.*, 64, 8855 (1999)
- 1999TEa V Tsvetkov, V Evreinov et al; *Zh. Obshch. Khim.*, 69, 1080 (1999)
- 1999Tma Y Takeda, Y Mochizuki, M Tanaka, Y Kudo; *J. Inclusion Phenom.*, 33, 217 (1999)
- 1999USa R Ungaro, M Schwing-Weill, G Wipff; *J. Chem. Soc., Perkin Trans. II*, 1727 (1999)
- 1999Vma P Victor, P Muhuri, B Das, D Hazra; *J. Phys. Chem. B*, 103, 11227 (1999)
- 1999Wba G Wenz, H-J Buschmann, E Schollmeyer; *J. Coord. Chem.*, 48, 465 (1999)
- 1999Wkb E Wagner-Czauderna, M Kalinowski; *J. Coord. Chem.*, 46, 265 (1999)
- 1998BJb H-J Buschmann, K Jansen, C Meschke; *J. Solution Chem.*, 27, 135 (1998)
- 1998DBa D Dantz, H Buschmann, E Schollmeyer; *Polyhedron*, 17, 1891 (1998)
- 1998DDc P Delangle, J-P Dutasta, J-P Declercq; *Chem. Eur. J.*, 4, 100 (1998)
- 1998Kba E Kabakova, N Bondarev; *Zh. Neorg. Khim.*, 43(5)820 (1998)
- 1998Kbb E N Kabakova, N V Bondarev; *Zh. Fiz. Khim.*, 72, 1196 (1998)
- 1998Ksb Y Kikuchi, Y Sakamoto; *Anal. Chim. Acta*, 370, 173 (1998)
- 1998Ksc Y Kikuchi, Y Sakamoto, K Sawada; *J. Chem. Soc., Faraday Trans.*, 94, 105 (1998)
- 1998Ktb S Katsuta, C Takagi, Y Takeda; *J. Chem. Soc., Faraday Trans.*, 94, 365 (1998)
- 1998MLa M Mimouni, R Lyazghi, J Juillard; *New J. Chem.*, 367 (1998)
- 1998SBb V Solov'ev, V Baulin, A Varnek et al.; *J. Chem. Soc., Perkin Trans. II*, 1489 (1998)
- 1998SSf V Solov'ev, N Strakhova, V Kazachenko et; *Eur. J. Org. Chem.*, 1379 (1998)
- 1998Tia T Takayanagi, T Iwashido, S Motomizu; *Bull. Chem. Soc. Jpn.*, 71, 1373 (1998)
- 1998TKa Y Takeda, A Kawarabayashi, K Endo; *Anal. Sci. Jpn.*, 14, 215 (1998)
- 1998Wlc S Whitbread, S Lincoln, K Wainwright; *J. Am. Chem. Soc.*, 120, 2862 (1998)
- 1998Zbc X Zhang, J Bradshaw, A Bordunov, R Izatt; *Inorg. Chim. Acta*, 278, 6 (1998)
- 1997BGa P Beer, P Gale, Z Chen et al; *Inorg. Chem.*, 36, 5880 (1997)
- 1997Bma A Basili, P Mussini, T Mussini, S Rondinini; *Ber. Buns. Phys. Chem.*, 101, 842 (1997)
- 1997Cha S Capewell, G Hefter, P Sipos; *J. Solution Chem.*, 26, 957 (1997)
- 1997DMd R Dhillon, S Madbak, F Ciccone, S Lincoln; *J. Am. Chem. Soc.*, 119, 6126 (1997)
- 1997Dza A Danil de Namor, M Zapata-Ormachea; *J. Phys. Chem. B*, 101, 6772 (1997)
- 1997Eka S Eltsov, A Kern et al; *Zh. Obshch. Khim.*, 67, 1430 (1997)
- 1997Eya S Eltsov, S Yarmolenko et al; *Zh. Neorg. Khim.*, 42, 1217 (1997)
- 1997Kka K Kubo, N Kato, T Sakurai; *Bull. Chem. Soc. Jpn.*, 70, 3041 (1997)
- 1997Lha I Lednev, R Hester, J Moore; *J. Chem. Soc., Faraday Trans.*, 93, 1551 (1997)
- 1997Mka V Mironov, V Kiselev et al; *Zh. Neorg. Khim.*, 42, 1029 (1997)
- 1997Pbb Y Pointud, C Bernard, J Juillard; *J. Solution Chem.*, 26, 479 (1997)
- 1997Sta A Saito, H Tomari, G Choppin; *Inorg. Chim. Acta*, 258, 145 (1997)
- 1997Taa K Tawarah, F Ababneh; *J. Inclusion Phenom.*, 29, 15 (1997)
- 1997Wra E Wagner-Czauderna, J Rzeszotarska; *Ber. Buns. Phys. Chem.*, 101, 1154 (1997)
- 1997Wwa S Whitbread, J Weeks, S Lincoln; *Australian J. Chem.*, 50, 853 (1997)

- 1997YLa V W-H Yam, V W-M Lee, F Ke, K-W Siu; *Inorg.Chem.*, 36, 2124 (1997)
- 1997ZBa X Zhang, A Bordunov, X Kou et al; *Inorg.Chem.*, 36, 2586 (1997)
- 1997ZBb X Zhang, J Bradshaw, A Bordunov, R Izatt; *J.Inclusion Phenom.*, 29, 259 (1997)
- 1997Zia X Zhang, R Izatt, K Krakowiak; *Inorg.Chim.Acta*, 254, 43 (1997)
- 1996AAb R Abidi, F Arnaud-Neu, M Drew, J Nelson; *J.Chem.Soc., Perkin Trans.II*, 2747 (1996)
- 1996AAc F Arnaud-Neu, R Arnecke, J Gordon; *J.Chem.Soc., Perkin Trans.II*, 1855 (1996)
- 1996AAe F Arnaud-Neu, Z Asfari, B Souley, J Vicens; *New J.Chem.*, 20, 453 (1996)
- 1996ABa R Abidi, M Baker, J Harrowfield; *Inorg.Chim.Acta*, 246, 275 (1996)
- 1996BBf A Bordunov, J Bradshaw et al; *Inorg.Chem.*, 35, 7229 (1996)
- 1996BCh H-J Buschmann, E Cleve, E Schollmeyer; *J.Coord.Chem.*, 39, 293 (1996)
- 1996CPa A Casnati, A Pochini, R Ungaro, D Reinhoudt; *Chem.Eur.J.*, 2, 436 (1996)
- 1996DBa Yu Didi, N Bondarev; *Zh.Obshch.Khim.*, 66, 1267 (1996)
- 1996DPc U Dash, M Patnaik; *Indian J.Chem.*, 35A, 836 (1996)
- 1996OKa K Ohtsu, T Kawashima, K Ozutsumi; *Anal.Sci.*, 12, 37 (1996)
- 1996RSb A de Robertis, C de Stefano, C Foti; *Ann.Chim.(Rome)*, 86, 155 (1996)
- 1996RSc O Raevski, V Solov'ev et al.; *J.Org.Chem.*, 61, 8113 (1996)
- 1996SCa N Sabbatini, A Casnati, C Fischer; *Inorg.Chim.Acta*, 252, 19 (1996)
- 1996SDa A Stephens, R Dhillon et al; *Inorg.Chem.*, 35, 2019 (1996)
- 1996SSb V Solov'ev, N Strakhova, O Raevski et al.; *J.Org.Chem.*, 61, 5221 (1996)
- 1996WPa S Whitbread, S Politis, S Lincoln; *J.Chem.Soc., Dalton Trans.*, 1379 (1996)
- 1995ABc F Arnaud-Neu, G Barrett, S Fanni, D Marrs; *J.Chem.Soc., Perkin Trans.II*, 453 (1995)
- 1995BDa P Beer, M Drew, R Knubley et al; *J.Chem.Soc., Dalton Trans.*, 3117 (1995)
- 1995BSa I Batinic-Haberle, I Spasojevic et al; *J.Chem.Soc., Dalton Trans.*, 2503 (1995)
- 1995CUa A Casnati, R Ungaro, M Schwing, D Reinhoudt; *J.Am.Chem.Soc.*, 117, 2767 (1995)
- 1995DGa A Danil de Namor, E Gil, M Llosa Tanco; *J.Phys.Chem.*, 99, 16776 (1995)
- 1995DSb A D'Aprano, M Salomon, V Mauro; *J.Solution Chem.*, 24, 685 (1995)
- 1995FDa J Fransen, P Dutton; *Can.J.Chem.*, 73, 2217 (1995)
- 1995KTb Y Kudo, Y Takeda, H Matsuda; *J.Electroanal.Chem.*, 396, 333 (1995)
- 1995KZa K Krakowiak, X Zhang, J Bradshaw, R Izatt; *J.Inclusion Phenom.*, 23, 223 (1995)
- 1995OKb K Ohtsu, T Kawashima, K Ozutsumi; *J.Chem.Soc., Faraday Trans.*, 91, 4375 (1995)
- 1995RGa A de Robertis, P di Giacomo, C Foti; *Anal.Chim.Acta*, 300, 45 (1995)
- 1995TEa E Tsvetkov, V Evreinov, V Baulin et al; *Zh.Obshch.Khim.*, 65, 1421(1300) (1995)
- 1995WIa P Wang, R Izatt, S Gillespie, J Oscarson; *J.Chem.Soc., Faraday Trans.*, 91, 4207 (1995)
- 1995ZBa X Zhang, A Bordunov, J Bradshaw, R Izatt; *J.Am.Chem.Soc.*, 117, 11507 (1995)
- 1994BCd H Buschmann, E Cleve, E Schollmeyer; *J.Solution Chem.*, 23, 569 (1994)
- 1994BHB W Bakker, M Haas, C Khoo-Beattie et al; *J.Am.Chem.Soc.*, 116, 123 (1994)
- 1994CGa R Crossley, Z Goolamali, J Gosper et al; *J.Chem.Soc., Perkin Trans.II*, 513, 1615 (1994)
- 1994DFc C de Stafano, C Foti, A Gianguzza; *Talanta*, 41, 1715 (1994)
- 1994FRa S Filipek, J Rzeszotarska, M Kalinowski; *Monatsh.Chem.*, 125, 801 (1994)
- 1994HKA R Hoffman, W Knoche, C Fenn, H-J Buschmann; *J.Chem.Soc., Faraday Trans.*, 90, 1507 (1994)
- 1994HWC T Hu, L Weiler; *Can.J.Chem.*, 72, 1512 (1994)

- 1994IZa R Izatt,X Zhang,H An,C Zhu et al; Inorg.Chem.,33,1007 (1994)
- 1994LLa P Lye,G Lawrance,M Maeder et al; J.Chem.Soc.,Dalton Trans.,793 (1994)
- 199400a K Ozutsumi,K Ohtsin,T Kawashima; J.Chem.Soc.,Faraday Trans.,90,127 (1994)
- 19940Ua T Okada,T Usui; Anal.Chem.(USA),66,1654 (1994)
- 1994SFb C de Stefano,C Foti,A Gianguzza; J.Chem.Res.(S),464 (1994)
- 1994SSb A Srivastava,R Samant; J.Chem.Eng.Data,39,358 (1994)
- 1993ABb F Arnaud-Neu,G Barrett et al; Inorg.Chem.,32,2644 (1993)
- 1993BEb A Bovin,V Evreinov et al.; Izv.Akad.Nauk USSR,(5)952 (1993)
- 1993BMa G Barrett,A McKervery,J Malone et al; J.Chem.Soc.,Perkin Trans.II,1475 (1993)
- 1993CRa M Chen,R Reid; Can.J.Chem.,71,763 (1993)
- 1993DLb R Dhillon,S Lincoln; Australian J.Chem.,47,123 (1993)
- 1993EBa V Evreinov,V Baulin et al.; Izv.Akad.Nauk USSR,(3)518 (1993)
- 1993Eva V Evreinov,Z Vostroknutova et al; Zh.Neorg.Khim.,38(9),1519 (1993)
- 1993HSa R Helgeson,B Selle et al; J.Am.Chem.Soc.,115,11506 (1993)
- 1993ILa Y Inoue,Y Liu,L Tong,M Ouchi,T Hakushi; J.Chem.Soc.,Perkin Trans.II,1947 (1993)
- 1993INa Y Inoue,K Nakagawa,T Hakushi; J.Chem.Soc.,Dalton Trans.,1333,2279 (1993)
- 1993MAa S Manohar,G Atkinson; J.Solution Chem.,22,859 (1993)
- 1993RPa T Rodopoulos,P Pittet,S Lincoln; J.Chem.Soc.,Dalton Trans.,1055 (1993)
- 1993SFb A Stephens,S Lincoln; J.Chem.Soc.,Dalton Trans.,2123 (1993)
- 1993SKf G Smith,H Kirschenlohr,J Metcalfe; J.Chem.Soc.,Perkin Trans.II,1205 (1993)
- 1993TAa L Tassi; J.Chem.Soc.,Faraday Trans.,89,733 (1993)
- 1993TCa M Turonek,P Clarke et al; Inorg.Chem.,32,2195 (1993)
- 1992ABb F Arnaud-Neu,G Barrett,S Cremin,M Deasy; J.Chem.Soc.,Perkin Trans.II,1119 (1992)
- 1992BCa H Buschmann,E Cleve,E Schollmeyer; Inorg.Chim.Acta,193,93 (1992)
- 1992BCe P Bosseray,G Coudert,J Juillard; Can.J.Chem.,70,828 (1992)
- 1992BEa V Baulin,V Evreinov et al.; Izv.Akad.Nauk USSR,(5)1161 (1992)
- 1992BUB H Buschmann; Inorg.Chim.Acta,195,51 (1992)
- 1992BVa J Benko,O Vollarova; Coll.Czech.Chem.Comm.,57,2227 (1992)
- 1992CDc R Cacciapaglia,A Doorn et al; J.Am.Chem.Soc.,114,2611 (1992)
- 1992CGB P Clarke,J Gulbis,S Lincoln et al; Inorg.Chem.,31,3398 (1992)
- 1992CLb A Cygan,E Luboch,J Biernat; J.Coord.Chem.,27,87 (1992)
- 1992CRa A Casale,A de Robertis,F Licastro; Ann.Chim.(Rome),82,13 (1992)
- 1992CSc Z Chen,O Schall et al; J.Am.Chem.Soc.,114,444 (1992)
- 1992DDb A De Robertis,C De Stefano,C Rigano; Thermochim.Acta,202,133 (1992)
- 1992DJa N Dalley,W Jiang,G Wu,J Bradshaw,R Izatt; J.Inclusion Phenom.,12,333 (1992)
- 1992HGb O Heitzsch,K Gloe,A Sabela,J Koryta; J.Inclusion Phenom.,13,311 (1992)
- 1992LPb R Lyazghi,Y Pointud,J Juillard; J.Chem.Soc.,Faraday Trans.,88,1017 (1992)
- 1992LSc S Lincoln,A Stephens; Inorg.Chem.,31,5067 (1992)
- 1992MGa J Medina,T Goodnow et al; J.Am.Chem.Soc.,114,10583 (1992)
- 1992MSe D Mishra,U Sharma,V Bhagwat; J.Indian Chem.Soc.,69,70 (1992)
- 19920Ia K Ozutsumi,S Ishiguro; Bull.Chem.Soc.Jpn.65,1173 (1992)
- 1992PSa H Parham,M Shamsipur; Polyhedron,11,987 (1992)
- 1992PTa M Payne,M Truter; J.Inclusion Phenom.,12,361 (1992)

1992TFa Y Takeda, I Fujimaki, S Ochiai, K Aoki; J. Inclusion Phenom., 13, 129 (1992)
 1992TSb Y Takeda, H Sato, S Sato; J. Solution Chem., 21, 1069 (1992)
 1992VOa V Vasil'ev, T Orlova, N Goncharova; Zh. Neorg. Khim., 37, 2088 (1080) (1992)
 1991ACc F Arnaud-Neu, S Cremin, D Cunningham; J. Inclusion Phenom., 10, 329 (1991)
 1991ASb M Amini, M Shamsipur; Inorg. Chim. Acta, 183, 65 (1991)
 1991BMb M Bruening, D Mitchell et al; Anal. Chem. (USA), 21 (1991)
 1991BSa H Bieth, G Schlewer, B Spiess; J. Inorg. Biochem., 41, 37 (1991)
 1991BUa H Bukowsky, E Uhlemann, K Gloe, P Muhl; Polyhedron, 10, 1591 (1991)
 1991CMB E Clarke, A Martell; Inorg. Chim. Acta, 190, 27, 37 (1991)
 1991DDa P Daniele, A de Robertis, C de Stefano +; J. Solution Chem., 20, 495 (1991)
 1991EBa V Evreinov, V Baulin et al.; Izv. Akad. Nauk USSR, (9) 1993 (1991)
 1991ERa C Erk; Thermochim. Acta, 180, 317 (1991)
 1991FGb F Fronczek, R Gandour, T Fyles; Can. J. Chem., 69, 12 (1991)
 1991GTa B Grabaric, M Tkalec, V Merzel; Electroanalysis, 3, 647 (1991)
 1991HHb R Hedderwick, F Hibbert et al; J. Chem. Soc., Perkin Trans. II, 579 (1991)
 1991IOa Y Inoue, M Ouchi, K Hosoyama et al; J. Chem. Soc., Dalton Trans., 1291 (1991)
 1991LMc C Lhermet, J-P Morel, L Angley; Electroanalysis, 3, 677 (1991)
 1991LSb S Lincoln, A Stephens; Inorg. Chem., 30, 3529 (1991)
 1991NTa S Norov, A Tsivadze et al; Zh. Neorg. Khim., 36, (2) 433 (1991)
 1991RSa A Robertis, C de Stefano, C Forti, Cuffari; J. Chem. Res. (S), 264 (1991)
 1991SBa Y Salnikov, G Boos et al; Zh. Neorg. Khim., 36, 1308 (745) (1991)
 1991SGa V Solovev, L Govorkova et al.; Izv. Akad. Nauk USSR, (3) 575 (1991)
 1991Sma R Smith, A Martell, Y Chen; Pure & Appl. Chem., 63, 1015 (1991)
 1991TKa Y Takeda, T Kimura; J. Inclusion Phenom., 11, 159 (1991)
 1991TNa N Truong, A Norris, H Shin, E Buncel; Inorg. Chim. Acta, 184, 59 (1991)
 1990AFa A Anantanarayan, T Fyles; Can. J. Chem., 68, 1338 (1990)
 1990CDC R Curini, G D'Ascenzo, A De Robertis; Thermochim. Acta, 173, 25 (1990)
 1990DDb P Daniele, A de Robertis, C de Stefano; Ann. Chim. (Rome), 80, 177 (1990)
 1990DSa R Delgado, L Siegfried et al; Helv. Chim. Acta, 73, 140 (1990)
 1990EAb V Evreinov, A Antoshin et al.; Izv. Akad. Nauk USSR, (4) 873 (1990)
 1990KMB R Katak, K Matthes et al; J. Chem. Soc., Perkin Trans. II, 1425 (1990)
 1990LNa N Lukyanenko, N Nazarova, V Vetrogon et al; Polyhedron, 9, 1369 (1990)
 1990LUa E Lada, A Urbanczyk, M Kalinowski; Australian J. Chem., 43, 2003 (1990)
 1990MBb A Majmudar, K Bhalla, A Gupta; Indian J. Chem., 29A, 639 (1990)
 1990RAa L Rowe, G Atkinson; J. Solution Chem., 19, 149 (1990)
 1990SAb M Salomon; J. Solution Chem., 19, 1225 (1990)
 1990SPa Z Samec, P Papoff; Anal. Chem. (USA), 62, 1010 (1990)
 1990TAA Y Takeda; J. Inclusion Phenom., 9, 309 (1990)
 1989ABb A Albrecht, S Blanc, D Boyd, G Jemmet; J. Am. Chem. Soc., 111, 8598 (1989)
 1989ACb F Arnaud-Neu, E Collins, M Deasy et al; J. Am. Chem. Soc., 111, 8681 (1989)
 1989BBh G Bonas, C Bosso, M Vignon; J. Inclusion Phenom., 7, 637 (1989)
 1989BEa A Bovin, V Evreinov et al; Izv. Akad. Nauk (USSR), 11, 2611 (1989)
 1989CMB J Charlier, E Merciny; Anal. Chim. Acta, 220, 187 (1989)
 1989EVA I Evreinov, Z Vostroknutova et al; Izv. Akad. Nauk (USSR), 1, 60 (1989)
 1989GSc M Geringer, H Sterk; Magn. Res. Chem., 27, 1148 (1989)
 1989KSA T Kron, E Sinyavskaya, E Tsvetkov; Izv. Akad. Nauk (USSR), 11, 2451 (1989)
 1989MGA I Marolleau, J-P Gisselbrecht et al; J. Chem. Soc., Dalton Trans., 367 (1989)
 1989MGB M Mpassi, G Guillaumet, G Condet et al; Can. J. Chem., 67, 1132 (1989)
 1989SSd N Strakhova, V Solovev, O Raevskii; Koord. Khim., 15(4) 483 (1989)
 1989TKa Y Takeda, R Kohno, Y Kudo, N Fukada; Bull. Chem. Soc. Jpn., 62, 999 (1989)

- 1989TKb E Tsvetkov, T Kron, E Sinyavskaya; *Izv. Akad. Nauk (USSR)*, 11, 2456 (1989)
- 1989TKc Y Takeda, T Kimura, Y Kudo, H Matsuda; *Bull. Chem. Soc. Jpn.*, 62, 2885 (1989)
- 1989YOa H Yokoyama, T Ohta; *Bull. Chem. Soc. Jpn.*, 62, 345 (1989)
- 1988ADa M Amorim, R Delgado et al; *Talanta*, 35, 741 (1988)
- 1988AGa A Arduini, E Ghidini, R Ungaro, F Ugozzoli; *J. Inclusion Phenom.*, 6, 119 (1988)
- 1988BUa H-J Buschmann; *Polyhedron*, 7, 721 (1988)
- 1988BUb H-J Buschmann; *Thermochim. Acta*, 17, 277 (1988)
- 1988DSa A Danil de Namor, F Salazar; *J. Chem. Soc., Faraday Trans. I*, 84, 3539 (1988)
- 1988DSb A D'Aprano, B Sesta; *J. Solution Chem.*, 17, 117 (1988)
- 1988HHb S Hassan, M Hamada; *Talanta*, 35, 361 (1988)
- 1988HKA G-X He, K Kikukawa, T Ikeda et al; *J. Chem. Soc., Perkin Trans. II*, 719 (1988)
- 1988MOc Y Matsushima, A Okuwaki; *Bull. Chem. Soc. Jpn.*, 61, 3344 (1988)
- 1988NHa T Nakamura, H Higuchi, K Izutsu; *Bull. Chem. Soc. Jpn.*, 61, 1020 (1988)
- 1988PJ a Y Pointud, J Juillard; *J. Chem. Soc., Faraday Trans. I*, 84, 959 (1988)
- 1988SSc V Solovev, N Strakhova, O Raevskii; *Izv. Akad. Nauk (USSR)*, 10, 2400 (1988)
- 1988TKa Y Takeda, K Katsuta, Y Inoue et al; *Bull. Chem. Soc. Jpn.*, 61, 627 (1988)
- 1988TKb Y Takeda, T Kumazawa; *Bull. Chem. Soc. Jpn.*, 61, 655 (1988)
- 1988TMb K Tawarah, S Mizyed; *J. Inclusion Phenom.*, 6, 583 (1988)
- 1988TMc K Tawarah, S Mizyed; *J. Inclusion Phenom.*, 6, 555 (1988)
- 1988YKa K Yatsimirskii, M Kabachnik et al; *Izv. Akad. Nauk (USSR)*, 1, 53 (1988)
- 1988YOa H Yokoyama, T Ohta; *Bull. Chem. Soc. Jpn.*, 61, 3073 (1988)
- 1987BBf R Bartsch, D Babb, B Knudsen; *J. Inclusion Phenom.*, 5, 515 (1987)
- 1987BUb H-J Buschmann; *Inorg. Chim. Acta*, 134, 225 (1987)
- 1987CCc B Czech, A Czech, B Knudsen et al; *Gazz. Chim. Ital.*, 117, 717 (1987)
- 1987DDa J Desroches, H Dugas, T Fyles, G Robertson; *Can. J. Chem.*, 65, 1513 (1987)
- 1987DDb R Delgado, J da Silva et al; *Polyhedron*, 6, 29 (1987)
- 1987DDd A De Robertis, C De Stefano, S Sammartano; *Talanta*, 34, 933 (1987)
- 1987DSa A Danil de Namor, S Salazar et al; *J. Chem. Soc., Faraday Trans. I*, 83, 2663 (1987)
- 1987KHa K Kikukawa, G-X He, A Abe, T Goto et al; *J. Chem. Soc., Perkin Trans. II*, 135 (1987)
- 1987MGb A Majmudar, A Gupta; *Indian J. Chem.*, 26A, 721 (1987)
- 1987MKb T Matkovskaya, L Krinitskaya, N Dyatlova; *Reaktivy i Osobo Chistye Veshch.*, 49, 83 (1987)
- 1987SRb H Stover, M Robillard, C Detellier; *Polyhedron*, 6, 577 (1987)
- 1987TCa V Tkachev, A Chaikovskaya et al; *Izv. Akad. Nauk (USSR)*, 12, 2745 (1987)
- 1987ZBa P Zanonato, P di Bernardo et al; *Polyhedron*, 6, 417 (1987)
- 1987ZBb D Zollinger, E Bulten, A Christenhusz; *Anal. Chim. Acta*, 198, 207 (1987)
- 1986BUb H-J Buschmann; *Inorg. Chim. Acta*, 120, 125 (1986)
- 1986BUd H-J Buschmann; *Inorg. Chim. Acta*, 125, 31 (1986)
- 1986CDc S Capone, A De Robertis, S Sammartano; *Thermochim. Acta*, 102, 1 (1986)
- 1986CHc D Cram, S Ho; *J. Am. Chem. Soc.*, 108, 2998 (1986)
- 1986DGA A Danil de Namor, L Ghouseini, T Hill; *J. Chem. Soc., Faraday Trans. I*, 82, 349 (1986)
- 1986GSa M Gholivand, M Shamsipur; *Inorg. Chim. Acta*, 121, 53 (1986)
- 1986HAa G-X He, A Abe, T Ikeda, F Wada et al; *Bull. Chem. Soc. Jpn.*, 59, 674 (1986)
- 1986ICa R Izatt, G Clark, J Lamb, J Christensen; *Thermochim. Acta*, 97, 115 (1986)
- 1986LWa Liu Y, Wang Y K, Guo Z Q, Yang S Y, Jin; *Acta Chimica Sinica*, 22 (1986)
- 1986RSa A de Robertis, C de Stefano et al; *J. Chem. Res. (S)*, 164 (1986)

- 1986SDa P Singh, H Dahiya, V Sharma; Indian J.Chem., 25A, 116 (1986)
- 1986STb E Sinyavskaya, L Tsymbal et al; Izv.Akad.Nauk(USSR), 1, 176 (1986)
- 1985AEb R Adamic, E Eyring, S Petrucci, R Bartsch; J.Phys.Chem., 89, 3752 (1985)
- 1985CDb A Casale, A De Robertis, S Sammartano; Thermochim.Acta, 95, 15 (1985)
- 1985CKa M Chantooni, I Kolthoff; J.Solution Chem., 14, 1 (1985)
- 1985DGA A Danil de Namor, L Ghouseini; J.Chem.Soc., Faraday Trans.I, 81, 781 (1985)
- 1985DGB A Danil de Namor, L Ghouseini et al; J.Chem.Soc., Faraday Trans.I, 81, 2459 (1985)
- 1985DRa P Daniele, A de Robertis et al; J.Chem.Soc., Dalton Trans., 2353 (1985)
- 1985DRb P Daniele, C Rigano, S Sammartano; Anal.Chem.(USA), 57, 2956 (1985)
- 1985DSa P Daniele, S Sonogo, M Ronzani et al; Ann.Chim.(Rome), 75, 245 (1985)
- 1985HAd L Harju; Finn.Chem.Lett. 235 (1985)
- 1985LWa Y Liu, Y Wang, Z Guo, S Yang etc; Huaxue Tongbao(Chem.China), 5 (1985)
- 1985RCa J Rebek, T Costello, L Marshall et al; J.Am.Chem.Soc., 107, 7481 (1985)
- 1985RSa A de Robertis, C de Stefano, C Rigano +; J.Chem.Res.(S), 42 (1985)
- 1985TAa Y Takeda, O Arima; Bull.Chem.Soc.Jpn., 58, 3403 (1985)
- 1985YIa M Yamauchi, T Imato, M Katahira; Anal.Chim.Acta, 169, 59 (1985)
- 1985YKa K Yatsimirskii, M Kabachnik et al; Zh.Neorg.Khim., 30, 976(549) (1985)
- 1985ZFa Zhou Yiquan, H Fang, D Wang, J Zhang; Acta Chimica Sinica, 290 (1985)
- 1984AMa E Arnett, S Maroldo et al; J.Am.Chem.Soc., 106, 6759 (1984)
- 1984BPa B Bubnis, G Pacey; Talanta, 31, 1149 (1984)
- 1984CTa B Cox, N Truong, J Rzeszotarska et al; J.Chem.Soc., Faraday Trans.I, 80, 3275 (1984)
- 1984CTb B Cox, Ng van Truong et al; J.Am.Chem.Soc., 106, 5965 (1984)
- 1984CTd C Chan, N Tioh, G Hefter; Polyhedron, 3, 845 (1984)
- 1984DGA A Danil de Namor, L Ghouseini; J.Chem.Soc., Faraday Trans.I, 80, 2349 (1984)
- 1984DRa A De Robertis, C Rigano, S Sammartano; Ann.Chim.(Rome), 74, 33 (1984)
- 1984DSa G Dezhkina, I Shmydko, V Fedorov; Zh.Neorg.Khim., 29, 1603 (1984)
- 1984FWa T Fyles, D Whitfield; Can.J.Chem. 62, 507 (1984)
- 1984IEa I Ikeda, H Emura, M Okahara; Bull.Chem.Soc.Jpn., 57, 1612 (1984)
- 1984MFa E Merciny, J Fuger; Anal.Chim.Acta, 160, 87 (1984)
- 1984MPa T Myasoedova, A Ponomareva et al; Zh.Neorg.Khim., 29, 1938(1109) (1984)
- 1984NMB Y Nakatsuji, T Mori, M Okahara; J.Chem.Soc., Chem.Comm., 1045 (1984)
- 1984STb F Stover; J.Chromatography, 298, 203 (1984)
- 1984YKa K Yatsimirskii, M Kabachnik et al; Zh.Neorg.Khim., 29, 884(510) (1984)
- 1983AAa E Amble, E Amble; Polyhedron, 2, 1063 (1983)
- 1983CRb C Chang, M Rowland; Inorg.Chem., 22, 3867 (1983)
- 1983DGA P Daniele, M Grasso, C Rigano et al; Ann.Chim.(Rome), 73, 495 (1983)
- 1983DRb P Daniele, C Rigano, S Sammartano; Thermochim.Acta, 62, 101 (1983)
- 1983GGA W Gokel, D Goli, C Minganti, L Echegoyen; J.Am.Chem.Soc., 105, 6786 (1983)
- 1983IKa I Ikeda, T Katayama, K Tsuchiya et al; Bull.Chem.Soc.Jpn., 56, 2473 (1983)
- 1983KOA J Kim, M Ozeki, J Komiyama, T Iijima; J.Chem.Soc., Faraday Trans.I, 79, 2153 (1983)
- 1983KTA K Kobiro, Y Tanaka, K Okubo et al; Chem.Lett., 1507 (1983)
- 1983LSa Luo Qinhuai, Shen Mengchang; Acta Chimica Sinica, 871 (1983)
- 1983MKA A Masuyama, P L-Kuo, M Okahara; Nippon Kagaku Kaishi, 249 (1983)
- 1983RCb G Roland, M Chantooni, I Kolthoff; J.Chem.Eng.Data, 28, 162 (1983)
- 1983SLa Sheng Huaiyu, S Li, H Lu, D Cheng; Acta Chimica Sinica, 1127 (1983)
- 1982BDC J Bolte, C Demuyndck, G Jeminet; Can.J.Chem., 60, 981 (1982)

1982BLc J-P Behr, J-M Lehn, P Vierling; *Helv.Chim.Acta*, 65, 1853 (1982)
 1982CCb R Contant, J Ciabrini; *J.Chem.Res.(S)*, 50 (1982)
 1982CFb B Cox, P Firman, D Gudlin et al; *J.Phys.Chem.*, 86, 4988 (1982)
 1982DNa A Delannoy, J Nicole et al; *Anal.Chim.Acta*, 134, 341 (1982)
 1982DRa P Daniele, C Rigano, S Sammartano; *Transition Met.Chem.*, 7, 109 (1982)
 1982DRb P Daniele, C Rigano, S Sammartano; *Inorg.Chim.Acta*, 63, 267 (1982)
 1982DSa R Delgado, J da Silva; *Talanta*, 29, 815 (1982)
 1982GBa E Grunwald, C Brown; *J.Phys.Chem.*, 86, 182 (1982)
 1982GCa D Gill, J Cheema; *Electrochim.Acta*, 27, 755 (1982)
 1982GCb D Gill, J Cheema; *Electrochim.Acta*, 27, 1267 (1982)
 1982GKc E Graf, J-P Kintzinger, J-M Lehn; *J.Am.Chem.Soc.*, 104, 1672 (1982)
 1982GRc P Georgiou, Richardson, Truter, J Wingfield; *Inorg.Chim.Acta*, 66, 1 (1982)
 1982HLa B Haymore, J Lamb, R Izatt et al; *Inorg.Chem.*, 21, 1598 (1982)
 1982HLC T Handyside, J Lockhart, M McDonnell, P Rao; *J.Chem.Soc., Dalton Trans.*, 2331 (1982)
 1982MKA K Matsushima, N Kawamura et al; *Bull.Chem.Soc.Jpn.*, 55, 2181 (1982)
 1982MPe L Malahias, O Popovych; *J.Chem.Eng.Data*, 27, 105 (1982)
 1982MRa G Michaux, J Reisse; *J.Am.Chem.Soc.*, 104, 6895 (1982)
 1982MYc T Miyazaki, S Yanagida et al; *Bull.Chem.Soc.Jpn.*, 55, 2005 (1982)
 1982SYa T Sugawara, M Yudasaka Y Yokoyama et al; *J.Phys.Chem.*, 86, 2705 (1982)
 1982TAa Y Takeda; *Bull.Chem.Soc.Jpn.*, 55, 2040 (1982)
 1982YSa K Yatsimirskii, E Synyavskaya et al; *Zh.Neorg.Khim.*, 27, 1148(644) (1982)
 1981BBb J Bradshaw, S Baxter, I Lamb et al; *J.Am.Chem.Soc.*, 103, 1821 (1981)
 1981BEb T Bell; *J.Am.Chem.Soc.*, 103, 1163 (1981)
 1981CMD R Cali, S Musumeci, S Sammartano; *Inorg.Chim.Acta*, 56, L11 (1981)
 1981CRa B Cox, J G-Rosas, H Schneider; *J.Am.Chem.Soc.*, 103, 1384 (1981)
 1981DRa P Daniele, C Rigano, S Sammartano; *Thermochim.Acta*, 46, 103 (1981)
 1981EMb G Ercolani, L Mandolini, B Masci; *J.Am.Chem.Soc.*, 103, 7484 (1981)
 1981GLa E Graf, J Lehn; *Helv.Chim.Acta*, 64, 1040 (1981)
 1981KMB S Kulstad, L Malmsten; *J.Inorg.Nucl.Chem.*, 43, 1299 (1981)
 1981PTa D Parsons, M Truter, J Wingfield; *Inorg.Chim.Acta*, 47, 81 (1981)
 1981PTb D Parsons, M Truter, J Wingfield; *Inorg.Chim.Acta*, 51, 93 (1981)
 1981SKd E Sinyavskaya, M Konstantinovskaya et al; *Zh.Neorg.Khim.*, 26, 1800(971) (1981)
 1981SPb E Sinyavskaya, S Pisareva et al; *Zh.Neorg.Khim.*, 26, 1274(686) (1981)
 1981SSd R Sinta, J Smid; *J.Am.Chem.Soc.*, 103, 6962 (1981)
 1981TMB C Tang, J McLean jnr; *Inorg.Chem.*, 20, 2652 (1981)
 1980BMA J Bradshaw, G Maas, J Lamb et al; *J.Am.Chem.Soc.*, 102, 467 (1980)
 1980CKa B Cox, D Knop, H Schneider; *J.Phys.Chem.*, 84, 320 (1980)
 1980CRa R Cox, J G-Rosas, H Schneider; *J.Phys.Chem.*, 84, 3178 (1980)
 1980DRa P Daniele, C Rigano, S Sammartano; *Ann.Chim.(Rome)*, 70, 119 (1980)
 1980FSb V Fedorov, I Shmydko, G Dezhina; *Koord.Khim.*, 6, 983 (1980)
 1980GAb T Gilligan, G Atkinson; *J.Phys.Chem.*, 84, 208 (1980)
 1980GBa R Gresser, D Boyd, A A-Gary et al; *J.Am.Chem.Soc.*, 102, 651 (1980)
 1980HNa H Hopkins, A Norman; *J.Phys.Chem.*, 84, 309 (1980)
 1980KKb M Kodama, E Kimura, S Yamaguchi; *J.Chem.Soc., Dalton Trans.*, 2536 (1980)
 1980KMB S Kulstad and L Malmsten; *J.Inorg.Nucl.Chem.*, 42, 573 (1980)
 1980LDa L Lugina, N Davidenko; *Zh.Neorg.Khim.*, 25, 1454 (1980)
 1980LIa J Lamb, R Izatt, C Swain et al; *J.Am.Chem.Soc.*, 102, 475 (1980)
 1980LIb J Lamb, R Izatt, C Swain et al; *J.Am.Chem.Soc.*, 102, 479 (1980)

1980LVb J Lehn, P Vierling; *Tetrahedron Lett.*, 21, 1323 (1980)
 1980MDa J Massaux, J Desreux, G Duyckaerts; *J. Chem. Soc., Dalton Trans.*, 865 (1980)
 1980NTa H Nakamura, M Takagi, K Ueno; *Anal. Chem. (USA)*, 52, 1668 (1980)
 1980OPa C Olliff, G Pickering, K Rutt; *J. Inorg. Nucl. Chem.*, 42, 1201 (1980)
 1980TYa Y Takeda, H Yano, M Ishibashi et al; *Bull. Chem. Soc. Jpn.*, 53, 72 (1980)
 1980TYb Y Takeda, H Yano; *Bull. Chem. Soc. Jpn.*, 53, 1720 (1980)
 1980WAA J Wingfield; *Inorg. Chim. Acta*, 45, L157 (1980)
 1980WJa Wang Genglin, Jiang Zonghui; *Chem. J. of Chin. Univ.*, 117 (1980)
 1980WSb L Wong, J Smid; *Polymer*, 21, 195 (1980)
 1979BDa L T-Bozic, P Danesi; *J. Inorg. Nucl. Chem.*, 41, 833 (1979)
 1979BLb J Bessiere, M Lejaille; *Anal. Lett.*, 12, 753 (1979)
 1979DHa A Delannoy, J Hennion, J-C Bavay, J Nicole; *Compt. Rend.*, 289C, 401 (1979)
 1979HRA H Hoiland, J Ringseth, T Brun; *J. Solution Chem.*, 8, 779 (1979)
 1979JLa C Jollcoeur, L Lendin, R Labalne; *J. Phys. Chem.*, 83, 2806 (1979)
 1979KLa K Koenig, G Lein, P Stucker et al; *J. Am. Chem. Soc.*, 101, 3553 (1979)
 1979KMa K Kimura, T Maeda, T Shono; *Talanta*, 26, 945 (1979)
 1979LPf P LaBrocca, R Phillips, O Popovych; *J. Chem. Eng. Data*, 24, 215 (1979)
 1979MMA B Martin, D Martin; *J. Inorg. Nucl. Chem.*, 41, 1503 (1979)
 1979PSa N Poonia, S Sarad, A Jayakumar et al; *J. Inorg. Nucl. Chem.*, 41, 1759 (1979)
 1979TNa B Tomazik, G Nancollas; *J. Crystal Growth*, 46, 355 (1979)
 1978CAa P Carman; *J. Solution Chem.*, 7, 845 (1978)
 1978CSb B Cox, H Schneider, J Stroka; *J. Am. Chem. Soc.*, 100, 4746 (1978)
 1978FFa F Fisher, A Fox; *J. Solution Chem.*, 7, 561 (1978)
 1978HKc A Hofmanova, J Koryta, L Mittal et al; *Inorg. Chim. Acta*, 28, 73 (1978)
 1978HPa J Hoorderheide, A Popov; *J. Solution Chem.*, 7, 357 (1978)
 1978JId M Jawaaid, F Ingman; *Talanta*, 25, 91 (1978)
 1978LMA J Lehn, F Montavon; *Helv. Chim. Acta*, 61, 67 (1978)
 1978PAa D Parsons; *J. Chem. Soc., Perkin Trans. I*, 451 (1978)
 1978SKc L Smirnova, V Kravtsov et al; *Elektrokhim.*, 14, 290 (1978)
 1978WVa N Wester, F Vogtle; *J. Chem. Res. (S)*, 400 (1978)
 1978YSa K Yatsimirskii, E Sinyavskaya, T Kudrya; *Dokl. Akad. Nauk SSSR* 240, 100 (1978)
 1978YT a E Yee, J Tabib, M Weaver; *J. Electroanal. Chem.*, 96, 241 (1978)
 1977ADa M Abraham, A Danil de Namor, W Lee; *J. Chem. Soc., Chem. Comm.*, 893 (1977)
 1977CEb P Chock, F Eggers, M Eigen, R Winkler; *Biophys. Chem.*, 6, 239 (1977)
 1977FFa F Fisher, A Fox; *J. Solution Chem.*, 6, 641 (1977)
 1977ILa R Izatt, J Lamb, G Maas et al; *J. Am. Chem. Soc.*, 99, 2365 (1977)
 1977ILc R Izatt, J Lamb, R Asay et al; *J. Am. Chem. Soc.*, 99, 6134 (1977)
 1977LSc J Lehn, J Simon; *Helv. Chim. Acta*, 60, 141 (1977)
 1977MTc S Moore, T Tarnowski, M Newcomb, D Cram; *J. Am. Chem. Soc.*, 99, 6398 (1977)
 1977RLa J Rodriguez, G Liesegang; *J. Phys. Chem.*, 81, 2118 (1977)
 1977SZa C Srivanavit, J Zink, J Dechter; *J. Am. Chem. Soc.*, 99, 5876 (1977)
 1977TMA B Tummler, G Maas, E Weber et al; *J. Am. Chem. Soc.*, 99, 4683 (1977)
 1976AFa A Alegria, F Fontanez, G Stevenson; *J. Phys. Chem.*, 80, 1113 (1976)
 1976ANb G Anderegg; *Z. Naturforsch.* 31B, 786 (1976)
 1976BLb J-P Behr, J-M Lehn, P Vierling; *J. Chem. Soc., Chem. Comm.*, 621 (1976)
 1976DCa P Danesi, R Chiarizia, C Fabiani et al; *J. Inorg. Nucl. Chem.*, 38, 1226 (1976)
 1976FAa I Favretto; *Ann. Chim. (Rome)*, 66, 621 (1976)
 1976FGb H Flora, W Gilkerson; *J. Phys. Chem.*, 80, 679 (1976)
 1976ITa R Izatt, R Terry, D Nelson et al; *J. Am. Chem. Soc.*, 98, 7626 (1976)

1976ITb R Izatt, R Terry, B Haymore et al; J. Am. Chem. Soc., 98, 7620 (1976)
 1976KLc E Kauffmann, J Lehn, J Sauvage; Helv. Chim. Acta, 59, 1099 (1976)
 1976KOb G Kura, S Ohashi; J. Inorg. Nucl. Chem., 38, 1151 (1976)
 1976KRb R Kobos, G Rechnitz; Arch. Biochem. Biophys., 175, 11 (1976)
 1976LCa D Live, S Chan; J. Am. Chem. Soc., 98, 3769 (1976)
 1976LFa G Liesegang, M Farrow et al; J. Am. Chem. Soc., 98, 6905 (1976)
 1976LLa R Lemir, M Lister; J. Solution Chem., 5, 171 (1976)
 1976RMa J Rosenfaub M Martin C Prakash et al; J. Solution Chem., 5, 311 (1976)
 1976Rmb J Rosenfaub M Martin C Prakash et al; J. Solution Chem., 5, 345 (1976)
 1976SCa G Stevenson, R Concepcion, I Ocasio; J. Phys. Chem., 80, 861 (1976)
 1976UHa R Ungaro, B E-Haj, J Smid; J. Am. Chem. Soc., 98, 5198 (1976)
 1975AJa C Atlani, J-C Justice; J. Solution Chem., 4, 955 (1975)
 1975ANA G Anderegg; Helv. Chim. Acta, 58, 1218 (1975)
 1975CJa G Chaput, G Jeminet, J Juillard; Can. J. Chem., 53, 2240 (1975)
 1975DBb S Davidova, V Barabanov et al; Izv. Akad. Nauk (USSR), 6, 1441 (1975)
 1975EWa B Elgquist, M Wedborg; Marine Chem., 3, 215 (1975)
 1975HBB P Hemery S Boileau P Sigwalt et al; J. Polymer Sci. (part B), 13, 49 (1975)
 1975KIc L Kourbatova, A Ivakin, E Voronova; Koord. Khim., 1, 1481 (1975)
 1975LSc J Lehn, J Sauvage; J. Am. Chem. Soc., 97, 6700 (1975)
 1975MMA B Martin, D Martin; J. Inorg. Nucl. Chem., 37, 1079 (1975)
 1975SAd G Stevenson, A Alegria; J. Am. Chem. Soc., 97, 3869 (1975)
 1975SIc A Sadakane, T Iwachido, K Toei; Bull. Chem. Soc. Jpn., 48, 60 (1975)
 1975SMA R Smid; J. Inorg. Nucl. Chem., 37, 318 (1975)
 1975SNa E Shchori, N Nae, J Jagur-Grodzinski; J. Chem. Soc., Dalton Trans. 2381 (1975)
 1975YKa H Yeager, B Kratochvil; Can. J. Chem., 53, 3448 (1975)
 1974ADb A D'Aprano, I Donato, E Caponetti; J. Solution Chem., 3, 363; 3, 371 (1974)
 1974ARA R Aruga; J. Inorg. Nucl. Chem., 36, 3779 (1974)
 1974DKb A Das, K Kundu; J. Chem. Soc., Faraday Trans. I, 70, 1452 (1974)
 1974ESa J Exner, E Steiner; J. Am. Chem. Soc., 96, 1782 (1974)
 1974FIb F Ferranti, A Indelli; J. Solution Chem., 3, 619 (1974)
 1974HIA G Hanania, S Israelian; J. Solution Chem., 3, 57 (1974)
 1974HPb E Hanna, A Pethybridge, J Prue, D Spiers; J. Solution Chem., 3, 563 (1974)
 1974KKc A Kreshkov, K Komarova, V Gorbachev; Elektrokhim., 10, 1082(E:1025) (1974)
 1974RKd T Ryan, J Koryta, A Matejkova et al; Anal. Lett., 7, 335 (1974)
 1974SKa A Shkodin, T Kurova; Elektrokhim., 10, 340(E:323) (1974)
 1973BMD P Bruno, M Monica, E Righetti; J. Phys. Chem., 77, 1258 (1973)
 1973CSa J Carr, D Swartzfager; J. Am. Chem. Soc., 95, 3569 (1973)
 1973DDa A D'Aprano, I Donato; J. Chem. Soc., Faraday Trans. I, 69, 1685 (1973)
 1973FGa H Flora, W Gilkerson; J. Phys. Chem., 77, 1421 (1973)
 1973GKb E Grimsrud, B Kratochvil; J. Am. Chem. Soc., 95, 4477 (1973)
 1973JYa M Jansen, H Yeager; J. Phys. Chem., 77, 3089 (1973)
 1973KCb I Kolthoff, M Chantooni; J. Phys. Chem., 77, 523 (1973)
 1973SOB A Solovkin; Zh. Strukt. Khim., 14, 921(E:860) (1973)
 1973TKb S Takezawa, Y Kondo, N Tokura; J. Phys. Chem., 77, 2133 (1973)
 1973VAa V Vasilev, S Aleksandrova; Zh. Neorg. Khim., 18, 2055(E:1089) (1973)
 1973YKa N Yui, Y Kurokawa, M Nakayama; Bull. Chem. Soc. Jpn., 46, 1027 (1973)
 1973ZFa C Zust, P Fruh, W Simon; Helv. Chim. Acta, 56, 495 (1973)
 1972COa E Constantinescu; Rev. Roumaine Chim., 17, 1819 (1972)
 1972DAa A D'Aprano; J. Phys. Chem., 76, 2920 (1972)
 1972DDa A D'Aprano, I Donato; Electrochim. Acta, 17, 1175 (1972)

1972DDb A D'Aprano, I Donato; *Gazz.Chim.Ital.*, 102, 923 (1972)
 1972DMc H Dunsmore, D Midgley; *J.Chem.Soc., Dalton Trans.*, 64 (1972)
 1972FEb T Funck, F Eggers, E Grell; *Chimia*, 26, 637 (1972)
 1972IWa U Isacsson, G Wikander; *Acta Chem.Scand.*, 26, 1623 (1972)
 1972IWb T Iwachido; *Bull.Chem.Soc.Jpn.*, 45, 1746 (1972)
 1972IWC T Iwachido; *Bull.Chem.Soc.Jpn.*, 45, 432 (1972)
 1972KRb K Kundu, A Rakshit, M Das; *Electrochim.Acta*, 17, 1921 (1972)
 1972KRc K Kundu, A Rakshit, M Das; *J.Chem.Soc., Dalton Trans.*, 381 (1972)
 1972SAC D Singh, S Aggarwal; *Z.Phys.Chem.*, (Frankfurt), 81, 1 (1972)
 1972WFa H Wada, Q Fernando; *Anal.Chem.*, 44, 1640 (1972)
 1971BHa H Brookes, M Hotz, A Spong; *J.Chem.Soc.(A)*, 2410 (1971)
 1971BP a P Beronius, L Pataki; *Acta Chem.Scand.*, 25, 3705 (1971)
 1971CBc D Cogley, J Butler, E Grunwald; *J.Phys.Chem.*, 75, 1477 (1971)
 1971CSa J Carr, D Swartzfager; *Anal.Chem.*, 43, 1520 (1971)
 1971CSb J Carr, D Swartzfager; *Anal.Chem.*, 43, 583 (1971)
 1971DAa A D'Aprano; *J.Phys.Chem.*, 75, 3290 (1971)
 1971ENa D Evans, J Nadas, M Matesisch; *J.Phys.Chem.*, 75, 1708 (1971)
 1971FCa P Fruh, J Clerc, W Simon; *Helv.Chim.Acta*, 54, 1445 (1971)
 1971FRa H Frensdorff; *J.Am.Chem.Soc.*, 93, 600 (1971)
 1971HEa Y Herzberg; *Diss.Lensovet Len.Tech.Institute* (1971)
 1971HFa J Havir, A Fidler; *Acta Chim.Acad.Sci.Hung.*, 69, 163 (1971)
 1971HNB A Holmgren, A Nilsson, P Beronius; *Radiochem.Radioanal.Lett.*, 6, 339 (1971)
 1971HPa E Hanna, A Pethybridge, J Prue; *Electrochim.Acta*, 16, 677 (1971)
 1971INa R Izatt, D Nelson, J Rytting et al; *J.Am.Chem.Soc.*, 93, 1619 (1971)
 1971JBa M Justice, R Bury, J Justice; *Electrochim.Acta*, 16, 687 (1971)
 1971JKA J Juillard, I Kolthoff; *J.Phys.Chem.*, 75, 2496 (1971)
 1971LFa W Lutz, P Fruh, W Simon; *Helv.Chim.Acta*, 54, 2767 (1971)
 1971MEb N Melchior; *Science*, 171, 1267 (1971)
 1971NIa I Nikitina; *Cand.Thes.Lensovet Len.Tech.Institute* (1971)
 1971PGa R Paul, D Gill, J Singla, S Narula; *Indian J.Chem.*, 9, 63 (1971)
 1971PJa R Paterson, S Jalota, H Dunsmore; *J.Chem.Soc.(A)*, 2116 (1971)
 1971SSb A Shkodin, L Sadovnichaya, S Rosenko; *Elektrokhim.*, 7, 51(E:46) (1971)
 1971TGA B Tronov, A Goncharov, A Tronov; *Zh.Obshch.Khim.*, 41, 2, 280 (1971)
 1971YIa M Yamane, T Iwachido, K Toei; *Bull.Chem.Soc.Jpn.*, 44, 745 (1971)
 1970ALA F Accasina, R de Lisi, M Goffredi; *Electrochim.Acta*, 15, 1209 (1970)
 1970BKb T Broadwater, R Kay; *J.Phys.Chem.*, 74, 3802; *J.Chim.Phys.*, 68, 56 (1970)
 1970BWC P Beronius, G Wikander, A Nilsson; *Z.Phys.Chem.*, (Frankfurt), 70, 52 (1970)
 1970CDA F Calmes-Perraud, Y Doucet; *Compt.Rend.*, 271C, 780 (1970)
 1970CSa J Carr, D Swartzfager; *Anal.Chem.*, 42, 1238 (1970)
 1970FKb A Fidler, F Kralik; *Collec.Czech.Chem.Comm.*, 35, 1913 (1970)
 1970LWb W Lutz, H Wipf, W Simon; *Helv.Chim.Acta*, 53, 1741 (1970)
 1970MRb M Mohan, G Rechnitz; *J.Am.Chem.Soc.*, 92, 5839 (1970)
 1970MSa S McLaughlin, G Szabo, G Eisenman et al; *14th.Bio.Soc.Baltimore*, p.96a (1970)
 1970PCa J Prestegard, S Chan; *J.Am.Chem.Soc.*, 92, 4440 (1970)
 1970PSa P Pearce, W Strauss; *Australian J.Chem.*, 23, 905 (1970)
 1970RMB G Rechnitz, M Mohan; *Science*, 168, 1460 (1970)
 1970SAF D Singh, I Aggarwal; *Z.Phys.Chem.*, (Frankfurt), 73, 144 (1970)
 1970SSb K Sano, M Sakuma, S Motomizu et al; *Bull.Chem.Soc.Jpn.*, 43, 2457 (1970)
 1970YKb H Yeager, B Kratochvil; *J.Phys.Chem.*, 74, 963 (1970)

1969BJa R Bury,M Justice,J Justice; Compt.Rend.,268C,670 (1969)
 1969DLA A Demortier,G Lepoutre; Compt.Rend.,268C,453 (1969)
 1969FOc G Forcier,J Olver; Electrochim.Acta,14,135 (1969)
 1969GUb W Guenther; J.Am.Chem.Soc.,91,7619 (1969)
 1969GUC E Guggenheim; Trans.Faraday Soc.,65,2474 (1969)
 1969HEa H Helgeson; Am.J.Sci.,267,729 (1969)
 1969HFa D Hartmann,E Franck; Ber.Buns.Phys.Chem.,73,514 (1969)
 1969IEa R Izatt,D Eatough,J Christensen et al; J.Chem.Soc.(A),45;47 (1969)
 1969IRa R Izatt,J Rytting,D Nelson et al; Science,164,443 (1969)
 1969MFb I McKenzie,R Fuoss; J.Phys.Chem.,73,1501 (1969)
 1969NSa G Nichugovskii,V Shvedov; Zh.Neorg.Khim.,14,299(E:156) (1969)
 1969SBe B Sesta,M Berardelli; Ricerca Sci.,39,795;803 (1969)
 1969She H Sadek,A Hafez,F Khalil; Electrochim.Acta,14,1089 (1969)
 1968ATb E Andalaft,R Tomkins,G Janz; Can.J.Chem.,46,2959 (1968)
 1968BTc R Bury,C Treiner; J.Chim.Phys.,65,1410;1494 (1968)
 1968CFa Y Chiu,R Fuoss; J.Phys.Chem.,72,4123 (1968)
 1968CPb F Conti,G Pistoia; J.Chim.Phys.,72,2245 (1968)
 1968DIb A Dill,L Itzkowitz,O Popovych; J.Phys.Chem.,90,4580 (1968)
 1968HRb T Hseu,G Rechnitz; Anal.Lett.,1,629 (1968)
 1968SSa J Sudmeier,A Senzel; J.Am.Chem.Soc.,90,6860 (1968)
 1968SSc J Sudmeier,A Sengel; Anal.Chem.,40,1693 (1968)
 1968WPa H Wipf,L Pioda,Z Stefanac,W Simon; Helv.Chim.Acta,51,377 (1968)
 1968WSa J Watters,O Schupp; J.Inorg.Nucl.Chem.,30,3359 (1968)
 1967AKa R Alexander,E Ko,Y Mac et al; J.Am.Chem.Soc.,89,3703 (1967)
 1967BHc J Butler,R Huston,P Hsu; J.Phys.Chem.,71,3294 (1967)
 1967BNb D Bearcroft,N Nachtrieb; J.Phys.Chem.,71,316 (1967)
 1967CIa R Carroll,R Irani; Inorg.Chem.,6,1994 (1967)
 1967CKa M Chantooni,un,I Kolthoff; J.Am.Chem.Soc.,89,1582 (1967)
 1967CMc R Carroll,R Mesmer; Inorg.Chem.,6,1137 (1967)
 1967EGa W Eaton,P George,G Hanania; J.Phys.Chem.,71,2016 (1967)
 1967JTa G Janz,M Tait; Can.J.Chem.,45,1101 (1967)
 1967KHe R Kay,B Hales,G Cunningham; J.Phys.Chem.,71,3925 (1967)
 1967LEa A Lerman; Geochim.Cosmo.Acta,31,2309 (1967)
 1967PWb L Pioda,H Wachter,R Dohner,W Simon; Helv.Chim.Acta,50,1373 (1967)
 1967RMD Y Rutkovskii,V Mironov; Zh.Neorg.Khim.,12,3287 (1967)
 1967RMe A Rozen,A Mikhailichenko; Zh.Neorg.Khim.,12,741 (1967)
 1967SCa P Sears,J Caruso,A Popov; J.Phys.Chem.,71,905 (1967)
 1967WMa J Watters,S Matsumoto; J.Inorg.Nucl.Chem.,29,2955 (1967)
 1966AKa M Abramson,R Katzman,H Gregor,R Curci; Biochemistry,5,2207 (1966)
 1966CLb R Chlebek,M Lister; Can.J.Chem.,44,437 (1966)
 1966LCa E Luksha,C Criss; J.Phys.Chem.,70,1496 (1966)
 1966MBb W Masterton,L Berka; J.Phys.Chem.,70,1924 (1966)
 1966MRb V Mironov,Y Rutkovskii; Zh.Neorg.Khim.,11,1792 (1966)
 1966MWb S Minc,L Werblan; Roczn.Chem.,40,1537;1753 (1966)
 1966QMa A Quist,W Marshall; J.Phys.Chem.,70,3714 (1966)
 1966SAa L Savedoff; J.Am.Chem.Soc.,88,664 (1966)
 1966SSc C Suelter,R Singleton,F Kayne; Biochemistry,5,131 (1966)
 1965BCa J Botts,A Chashin,H Young; Biochemistry,4,1788 (1965)
 1965BFb I Bellobono,G Favini; Ann.Chim.(Italy),55,32 (1965)
 1965HKA J Hawes,R Kay; J.Phys.Chem.,69,2420 (1965)

1965LIa D Luehrs,R Iwamoto,J Kleinberg; Inorg.Chem.,4,1739 (1965)
 1964FMb G Fowles,W McGregor; J.Phys.Chem.,68,1342 (1964)
 1964FPa V Frei,J Podlahova,J Podlaha; Collec.Czech.Chem.Comm.,29,2587 (1964)
 1964JMb G Janz,A Marcinkowsky,I Ahmad; Electrochim.Acta,9,1687 (1964)
 1964KL a O Kolling,J Lambert; Inorg.Chem.,3,202 (1964)
 1964PSH P Protsenko,O Shokina,N Chekhunova; Zh.Fiz.Khim.,38,1857 (1964)
 1964RZa G Rechnitz,S Zamochnick; Talanta,11,1061 (1964)
 1963EDa L Erikson,J Dembo; J.Phys.Chem.,67,707 (1963)
 1963IFb H Irving,J Frausto da Silva; J.Chem.Soc.,448;458;3308 (1963)
 1963PSa G Parfitt,A Smith; Trans.Faraday Society,59,257 (1963)
 1963QFa A Quist,E Franck et al; J.Phys.Chem.,67,2453 (1963)
 1963SGd G Schwarzenbach,G Geier; Helv.Chim.Acta,46,906 (1963)
 1963SKa V Shvedov,K Kotegov; Radiokhim.,5,374 (1963)
 1962MWa S Minc,L Werblan; Electrochim.Acta,7,257 (1962)
 1962SHd A Shkodin; Zh.Fiz.Khim.,36,595 (1962)
 1961BKb H Brusset,M Kikindai; Compt.Rend.,252,1777 (1961)
 1961PSa P Proll,L Sutcliffe; Trans.Faraday Society,57,1078 (1961)
 1961WAA M Walser; J.Phys.Chem.,65,159 (1961)
 1961WLa J Wright,W Lindsay,T Druga; US AEC - Report TID-4500 (WAPD-TM-204)
 (1961)
 1960CEa M Crutchfield,J Edwards; J.Am.Chem.Soc.,82,3533 (1960)
 1959BOa E Bock; Can.J.Chem.,37,1888 (1959)
 1959DDa J Das,P Das,D Patnaik; J.Indian Chem.Soc.,36,761 (1959)
 1959WOa J Wolhoff,J Overbeek; Rec.Trav.Chim.,78,759 (1959)
 1958BSb K Brauer,H Strehlow; Z.Phys.Chem.,(Frankfurt),17,346 (1958)
 1958DTa C Davies,G Thomas; J.Chem.Soc.,3660 (1958)
 1957CPa S Cohen,R Plane; J.Phys.Chem.,61,1096 (1957)
 1957GKa J Graham,G Kell,A Gordon; J.Am.Chem.Soc.,79,2356 (1957)
 1957HUA S Hughes; J.Chem.Soc.,634 (1957)
 1957LSa M Lewis,H Saroff; J.Am.Chem.Soc.,79,2112 (1957)
 1957LWa S Lambert,J Watters; J.Am.Chem.Soc.,79,4262;5606 (1957)
 1957PGa E Purlee,E Grunwald; J.Am.Chem.Soc.,79,1366 (1957)
 1957WBA F Wold,C Ballou; J.Biol.Chem.,227,301 (1957)
 1957WLa J Watters,S Lambert,E Loughran; J.Am.Chem.Soc.,79,3651 (1957)
 1956BKa S Bruckenstein,I Kolthoff; J.Am.Chem.Soc.,78,2974 (1956)
 1956BMA J Bevan,C Monk; J.Chem.Soc.,1392 (1956)
 1956HUA S Hughes; J.Chem.Soc.,998 (1956)
 1956LLa N Lichtin,H Leftin; J.Phys.Chem.,60,160;161 (1956)
 1956SAC R Smith,R Alberty; J.Phys.Chem.,60,180 (1956)
 1956SPc M Spiro; J.Phys.Chem.,60,976 (1956)
 1956TMA G Thomas,C Monk; Trans.Faraday Society,52,685 (1956)
 1955GMA F Gimblett,C Monk; Trans.Faraday Society,51,793 (1955)
 1955RSA R Robinson,R Stokes; "Electrolyte Solutions".,p.396;400 (1955)
 1954FUa W Fernelius,L van Uitert; Acta Chem.Scand.,8,1726 (1954)
 1954JGa M Jones,E Griswold; J.Am.Chem.Soc.,76,3247 (1954)
 1954MEa N Melchior; J.Biol.Chem.,208,615 (1954)
 1954PSa T Pavlopoulous,H Strehlow; Z.Phys.Chem.,(Frankfurt),2,89 (1954)
 1953CSa J Cobble,W Smith; J.Am.Chem.Soc.,75,5777 (1953)
 1951DMb T Denney,C Monk; Trans.Faraday Society,47,992 (1951)
 1951EKA E Evers,A Knox; J.Am.Chem.Soc.,73,1739 (1951)

1950JMa I Jenkins,C Monk; J.Am.Chem.Soc.,72,2695 (1950)
 1950JMc J James,C Monk; Trans.Faraday Society,46,1041 (1950)
 1950WCa J van Wazer,D Campanella; J.Am.Chem.Soc.,72,655 (1950)
 1949HKa V Hnizda,C Kraus; J.Am.Chem.Soc.,71,1565 (1949)
 1949JJa J James; Trans.Faraday Society,45,855 (1949)
 1949MOa C Monk; J.Chem.Soc.,423;427 (1949)
 1948MOa C Monk; J.Am.Chem.Soc.,70,3281 (1948)
 1947JJa J James; Thesis,London (1947)
 1945JOa J Jones; J.Am.Chem.Soc.,67,855 (1945)
 1937DAa C Davies; J.Am.Chem.Soc.,59,1760 (1937)
 1937ROa R Robinson; J.Am.Chem.Soc.,59,84 (1937)
 1934AKa G Akerlof; J.Am.Chem.Soc.,56,1439 (1934)
 1931BRb W Banks,E Righellato,C Davies; Trans.Faraday Society,27,621 (1931)
 1930RDa E Righellato,C Davies; Trans.Faraday Society,26,592 (1930)
 1927DAb C Davies; Trans.Faraday Society,23,351 (1927)
 1927ONa L Onsager; Physik Z.,28,277 (1927)
 1923LRa G Lewis,M Randall; Thermodynamics,McGraw-Hill.,p.417 (1923)
 1902KSa F Kohlrausch,H von Steinwehr; Sitzungsber Akad.Wiss Berlin,581 (1902)

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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