SC-Database
Software version = 5.81 Data version = 4.62
Experiment list contains 717 experiments for
 (no ligands specified)
 Metal : Cs+
 (no references specified)
 (no experimental details specified)

****

e- HL Electron (442)

Electron;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	EMF	mixed	25°C	10%	U	I	K(Cs+e=Cs/Hg)=-49.24(-2.913V)	1974DKb (437)	1

Medium: 10% w/w DMSO/H2O; K=-49.04(-2.901V,w=20), -48.53(-2.871V,w=40), -47.72(-2.823V,w=60)

Cs+	oth	oth/un	25°C	0.0	U	I	K(Cs+e=Cs(s))=-49.34(-2.919V)	1972COa (438)	2

Method: Estimated. MeOH: -51.83((-3.066V).EtOH: -51.83(-3.066V).BuOH: -50.73 (-3.001V).PentOH: -50.36(-2.979V).Me2CO: -50.36(-2.979V)

Cs+	oth	oth/un	25°C	0.0	U	I	K(Cs+e=Cs(s))=-49.34(-2.919V)	1972COa (439)	3

Method: Estimated. MeCN: -55.85(-3.304V).HCOOH: -59.89(-3.543V).
Also NH3,N2H4

Cs+	con	non-aq	-65°C	100%	U	T	K(Cs + e(solv))=2.71 K(2Cs=Cs2)=1.34	1972DBa (440)	4

Medium: NH3(liquid). K=2.55, Kd=1.82(-45 C); K=2.41, Kd=2.11(-34 C)
Methods: conductivity and magnetic susceptibility

Cs+	EMF	none	25°C	0.00	U	T	K=-32.966 (-1950.2V)	1972MLb (441)	5

K:Cs+e=Cs(Hg); x(Cs) to 0;K=-34.169(-1.91965V,10 C),-31.854(-1.97922V,40 C), -30.820(-2.00671V,55 C), -29.896(-2.03548V,70 C)

Cs+	EMF	mixed	25°C	50%	U	I	K(Cs+e=Cs(s))=-49.14(-2.907V)	1971KRb (442)	6

Medium: 50% w/w ethylene glycol/H2O; K=-50.61(-2.994V,w=100)

Cs+	EMF	none	25°C	0.00	U		K(Cs+e=Cs/Hg))=-31.09(-1.839V)	1970KGa (443)	7

Cs+	con	non-aq	-65°C	100%	U	T	K(Cs + e(solv)=Cs)=2.66	1969DEc (444)	8

Medium: NH3(liquid); K=2.48(-45 C), 2.31(-34 C)

```
--------------------------------------------------------------------------------
Cs+        EMF non-aq 25°C 100%  U                        1966LCa   (445)   9
                                        K' = -50.49, -2987 mV
Medium: CH3NHCHO. K': Cs+ Cl + Ag(s)=Cs(s) + AgCl(s)
--------------------------------------------------------------------------------
Cs+        EMF none   25°C  0.0  U T                      1939BFa   (446)  10
                                        K(Cs+e)=-49.43(-2923 mV)
K=-54.49(0 C;-2952), -53.40(5 C;-2946 mV), -52.35(10 C;-2940 mV), -51.35(15
C;-2935 mV), -50.36(20 C,-2928 mV), -48.46(30 C;2914 mV)
********************************************************************************
BO4H4-                  HL    Borate           CAS 10043-35-3  (991)
Borate; B(OH)4-
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Cs+        sp  oth/un 25°C 1.00M U  I     K1=0.45        1990RAa  (1305)  11
Medium: CsCl. Data at I=0 M and 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
--------------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U T      K1=2.57        1993TAa  (1875)  12
Medium: 2-methoxyethanol, -10 to 80 C
--------------------------------------------------------------------------------
Cs+        con diox/w 25°C    ?  U        K1=-0.158      1975MFa  (1876)  13
Data for dioxan/H2O solution with a dielectric constant of 78.35
Further data available for solutions with varying dielectric constants
--------------------------------------------------------------------------------
Cs+        con none   25°C  0.0  U        K1=-0.84       1971HPa  (1877)  14
--------------------------------------------------------------------------------
Cs+        con none   25°C  0.0  U        K1=-0.4        1971PJa  (1878)  15
--------------------------------------------------------------------------------
Cs+        con diox/w 25°C  40%  U  I     K1=0.74        1971TJa  (1879)  16
Medium: 40% w/w dioxan/H2O. K1=1.75(60%), 2.42(70%), 4.03(82.8%)
In THF/H2O: K1=-0.92(15%),0.07(30%),0.95(50%),2.00(70%),2.70(80%),3.90(90%)
--------------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=0.39        1970CDa  (1880)  17
Medium: DMSO
--------------------------------------------------------------------------------
Cs+        con oth/un 25°C  0.0  U        K1=0.03        1968HFa  (1881)  18
--------------------------------------------------------------------------------
Cs+        sol non-aq 25°C 100%  U  I                    1967AKa  (1882)  19
                                        Kso=-0.29
Medium: HCONH2. In DMF: Kso=-3.3
--------------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=3.36        1965BFb  (1883)  20
Medium: diaminoethane
********************************************************************************
```

BrO3- HL Bromate (6017)
Bromate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	con	none	25°C	0.0	U		K1=-0.06	1971JBa (2408)	21
Cs+	con	none	25°C	0.0	U		K1=0.00	1969BJa (2409)	22

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	EMF	oth/un	25°C		U		K1=2.72	1969NSa (3562)	23
Assuming K(Cs+Fe(CN)6)=1.30									
Cs+	oth	none	25°C	0.0	U		K1=2.85	1966NSa (3563)	24
Method: transport number									

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	sol	oth/un	25°C	3.0M	U		K1=0.52	1967RMd (3638)	25
Medium: LiNO3									
Cs+	sol	oth/un	25°C	3.0M	U		K1=0.52	1967RMd (3639)	26
Medium: LiNO3									
Cs+	sol	oth/un	25°C	3.0M	U		K1=-0.26	1966MRb (3640)	27
Medium: LiCl									

C8N8W-- H2L (2192)
Octacyanotungstate (VI); W(VI)(CN)8--

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	con	oth/un	25°C	0.00	U		K1=1.71	1976LLa (3702)	28

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	con	mixed	25°C	15%	U	I	K1=-0.03	1974RJa (4718)	29
In 15.1% w/w 1,2-dimethoxyethane/H2O;K1=-0.31(0%),0.34(30.9%),0.67(36.7%), 1.04(50.0%),1.42(60.0%),2.60(79.9%),3.06(84.8%). Also in THF and dioxan/H2O									

```
Cs+        con non-aq 25°C 100%  U  I     K1=1.94        1973SAb  (4719)  30
Medium: 29.3% w/w dioxan/MeOH. K1=1.26(0%), 2.70(45.2%), 3.08(52.6%),
3.87(62.3%)
--------------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=1.7         1971ENa  (4720)  31
Medium: trifluoroethanol. K1=1.63 to 1.88
--------------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=0.02        1971PGa  (4721)  32
Medium: N-methylformamide
--------------------------------------------------------------------------------
Cs+        con none   25°C  0.0  U        K1=-0.4        1971PJa  (4722)  33
--------------------------------------------------------------------------------
Cs+        con mixed  25°C  10%  U  I     K1=0.71        1970BKb  (4723)  34
Medium: 10.1% t-butanol/H2O. K1=0.85(14.8%), 1.15(19.7%)
--------------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=0.48        1970CDa  (4724)  35
Medium: DMSO
--------------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U  I     K1=1.20        1970SAf  (4725)  36
Medium: 9.57% w/w butanol/MeOH. K1=1.27(19.7%), 1.47(39.8%), 1.53(51.4%)
--------------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U  I     K1=2.26        1968PIb  (4726)  37
Medium: 48.1% w/w EtOH/acetone. K1=2.13(65.5%), 2.11(82.7%), 2.14(91.6%),
2.19(100%)
--------------------------------------------------------------------------------
Cs+        sol non-aq 25°C 100%  U                       1967AKa  (4727)  38
                                          Kso=-0.53
Medium: formamide. Kso=-4.9 in DMF
--------------------------------------------------------------------------------
Cs+        oth oth/un 25?°C  0.0  U         K1=-0.1       1966MBb  (4728)  39
--------------------------------------------------------------------------------
Cs+        con alc/w  25°C  40%  U  I     K1=0.48        1965HKa  (4729)  40
Medium:4O.4% EtOH. K1=1.26(73.9%), 1.83(91.3%), 2.20(100%)
--------------------------------------------------------------------------------
Cs+        con alc/w  25°C 100%  U        K1=1.2         1965KHb  (4730)  41
Medium:MeOH
--------------------------------------------------------------------------------
Cs+        con alc/w  25°C 100%  U        K1=0.95        1965KHb  (4731)  42
Medium: MeOH
--------------------------------------------------------------------------------
Cs+        con diox/w 25°C  48%  U  I     K1=1.23        1963JFa  (4732)  43
I=0 corr. K1=1.92(64.4% dioxan), 2.35(70.5%), 2.91(75.5%), 3.32(78.8%)
--------------------------------------------------------------------------------
Cs+        gl  diox/w 25°C  70%  U        K1=2.57        1963PGb  (4733)  44
--------------------------------------------------------------------------------
Cs+        oth none   25°C  0.0  U        K1=-0.04       1954GMb  (4734)  45
From activity coefficient, I=0 corr. In CsCl(var) K1=-0.45
--------------------------------------------------------------------------------
Cs+        oth none   18°C  0.0  U        K1=-0.50       1912NFa  (4735)  46
********************************************************************************
```

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	con	none	25°C	0.0	C	I	K1=-0.02	1986SDa (6032)	47

Value derived from data for 0.001-0.05 self medium.

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	con	none	25°C	0.0	C	I	K1=0.23	1986SDa (6199)	48

Value derived from data for 0.001-0.05 self medium.

Cs+	gl	non-aq	25°C	100%	U	H	K1=5.78	1981TMb (6200)	49

Medium: Glacial acetic acid. Alternative method: Spectrophotometry.
DH(K1)=-13 kJ mol-1

Cs+	con	non-aq	25°C	100%	U		K1=1.55	1978CAa (6201)	50

Medium: Acetonitrile

Cs+	con	non-aq	25°C	100%	U		K1=1.5	1975YKa (6202)	51

Medium: MeCN

Cs+	con	non-aq	25°C	100%	U		K1=0.92	1974HPb (6203)	52

Medium: hexamethylphosphotriamide. K1 by Pitts eqn. By Fuoss-Hsia: K1=1.28

Cs+	con	non-aq	25°C	100%	U		K1=0.35	1973JYa (6204)	53

Medium: propene carbonate;0 corr. K1=0.3 to 0.4

Cs+	con	alc/w	25°C	100%	U		K1=1.73	1972DAa (6205)	54

Medium: MeOH

Cs+	con	non-aq	25°C	100%	U		K1=1.01	1971BCa (6206)	55

Medium: tetramethylurea

Cs+	con	none	25°C	0.0	U		K1=0.23	1971DAa (6207)	56

Cs+	con	non-aq	25°C	100%	U		K1=0.46	1971PGa (6208)	57

Medium: N-methylformamide

Cs+	con	mixed	25°C	30%	U	I	K1=2.42	1970PPb (6209)	58

Medium: 30.2% w/w acetone/EtOH. K1=2.25(54.7%), 2.24(61.4%), 2.19(74.1%), 2.35(100%)

Cs+	sol	none	25°C	0.0	U		Kso=-2.38	1969GUb (6210)	59

```
Cs+        con alc/w  25°C 100%  U  I     K1=1.52        1968CPb  (6211)  60
Medium: MeOH. In MeCN: K1=1.36. Also values for mixtures
--------------------------------------------------------------------------
Cs+        dis oth/un 25°C  0.0  U                       1968HFb  (6212)  61
                                        Kd(Cs+L=Cs+L in MeNO2)=-1.74
--------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=1.33        1967KHe  (6213)  62
Medium: MeCN
--------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U T      K1=1.83        1966MWb  (6214)  63
Medium: MeCN, also at 20 C, 30 C
--------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=2.16        1962MWa  (6215)  64
Medium: MeCN
**************************************************************************
F-                    HL    Fluoride         CAS 7644-39-3  (201)
Fluoride;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Cs+        sp  oth/un 25°C  1.0M U  I     K1=-0.16       1993MAa  (6823)  65
K1 values over a range of pressures and ionic strengths
**************************************************************************
H2O                    L    Water            CAS 7732-18-5  (6115)
Water
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Cs+        sol non-aq 25°C 100%  U        K1=-0.3        1967CKa  (7592)  66
Medium: MeCN
**************************************************************************
I-                    HL    Iodide           CAS 10034-85-2  (20)
Iodide;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Cs+        nmr non-aq 75°C 100%  U        K1=5.41        1982KPb  (7968)  67
Medium: methylamine
--------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U  I     K1=0.48        1976RMb  (7969)  68
Medium: 1,3-Dimethylethyleneurea. In 1,3-Dimethylpropyleneurea K1=0.14
--------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=2.45        1972IWa  (7970)  69
Medium: acetone
--------------------------------------------------------------------------
Cs+        con alc/w  25°C 93.7M U        K1=1.72        1971BPa  (7971)  70
Medium: 93.7% w/w EtOH/H2O
--------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=2.79        1971HNb  (7972)  71
Medium: propanol
```

Cs+ con none 25°C 0.0 U K1=-0.97 1971HPa (7973) 72

Cs+ con none 25°C 0.0 U K1=-0.53 1971PJa (7974) 73

Cs+ con alc/w 25°C 100% U I K1=0.97 1970BWc (7975) 74

Medium: MeOH; K1=2.00 in EtOH

Cs+ con non-aq 25°C 100% U K1=0.12 1970CDa (7976) 75

Medium: DMSO

Cs+ con non-aq 25°C 100% U I K1=1.15 1969SLa (7977) 76

In 10% w/w dioxan-DMF. K1=1.54(20%), 1.72(30%), 2.00(40%), 2.07(45%), 2.45 (50%), 2.66(55%), 3.04(60%), 3.44(65%), 4.00(70%), 4.60(75%), 5.42(80%)

Cs+ con oth/un 25°C 0.0 U K1=-0.03 1968HFa (7978) 77

Cs+ sol non-aq 25°C 100% U I 1967AKa (7979) 78

Kso=-0.23

Medium: H2NCHO. Kso=-1.7(DMF)

Cs+ dis none 25°C 0.0 U 1967RMe (7980) 79

K(Cs+I=Cs(TBP)+I(TBP))=-1.70

With (i-amylO)2MePO: Kd=-1.48

Cs+ con non-aq 25°C 100% U K1=3.24 1965BFb (7981) 80

Medium: diaminoethane

Cs+ con diox/w 25°C 90% U I K1=6.51 1962RSd (7982) 81

K1=9.95(95.48% dioxan), 12.30(96.92%)

****

IO3- HL Iodate CAS 7782-68-5 (1257)

Iodate;

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

---

Cs+ con none 25°C 0.0 U K1=-0.11 1971JBa (8507) 82

Cs+ con none 25°C 0.0 U K1=-0.12 1969BJa (8508) 83

****

IO4- HL Periodate CAS 13444-71-8 (6063)

Periodate;

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

---

Cs+ sol oth/un 40°C 0.0 U T H 1968KDb (8599) 84

Kso(CsIO4)=-2.19

Kso=-3.40(5 C),-2.65(25 C); DHso=54.8 kJ mol-1, DS=157.2 J K-1 mol-1

****

IrCl6--- H3L (1615)

Hexachloroiridate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ gl oth/un 50°C 0.10M U K1=3.15 1978KSb (8621) 85
****
NO2- HL Nitrite CAS 7782-77-6 (635)
Nitrite;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ con none 25°C 0.0 U K1=-0.36 1964PSh (9367) 86
****
NO3- HL Nitrate CAS 7697-37-2 (288)
Nitrate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ con diox/w 25°C 62% U I K1=4.06 1972SAc (9639) 87
Medium:Dioxan/MeOH. In 29.3% dioxan: K1=1.92. 45.2%: 2.80. 52.6%: 3.28

Cs+ con oth/un 25°C 0.0 U K1=0.03 1971JBa (9640) 88

Cs+ con oth/un 25°C 0.0 U K1=0.02 1969BJa (9641) 89

Cs+ con diox/w 25°C 62% U I K1=1.54 1969SBe (9642) 90
In 55.7% dioxan: K1=1.08. 59.0%: 1.23. 68.4%: 2.06. 71.9%: 2.34. 74.9%: 2.63

Cs+ oth oth/un 25°C 0.0 U K1=0.11 1937ROa (9643) 91
Method: Partial pressure of H2O. K1=0.04 to 0.18
****
OH- HL Hydroxide (57)
Hydroxide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ nmr R4N.X 25°C 3.4M C K1=-0.8 2002PLa (11263) 92
NMR Cs-133 under assumption that substitution of Cl for OH does affect
chemical shift, which is a rough approximation;Medium: 3.4 M Me4NCl/Me4NOH
****
P2O7---- 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
---
Cs+ gl none 25°C 0.0 U T K1=2.3 1959WOa (13579) 93
K1=2.3(40 C)
****
P3O10----- 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
Cs+	gl	none	25°C	0.0	U	T	K1=2.8	1959WOa (13849)	94

K1=2.8(40 C)

****

ReO4- HL Perrhenate (2581)

Rhenate(VII), Perrhenate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	sol	none	25°C	0.0	C			1988HHb (14096)	95
							Kso(CsReO4)=-3.40		

Method: perrhenate ion selective electrode.

****

SO4-- H2L Sulfate CAS 7664-93-9 (15)

Sulfate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	ISE	R4N.X	25°C	1.0M	C		K1=-0.10	1999CHa (16132)	96

Method: Na ISE. Medium: 1.0 M Me4NCl. Estimated from study of Na-SO4 complexation in 0.50-7.00 M CsCl and 1.0 M Me4NCl.

Cs+	gl	NaCl	37°C	0.10M	C	I	K1=0.70	1982DRb (16133)	97

Data for I=0.03-0.50 M NaCl. At I=0.0 M, K1=1.04

Cs+	oth	oth/un	25°C	0.50M	U	TI	K1=0.60	1980GAb (16134)	98

Method: Ultrasonic absorption. Medium: Na2SO4

Cs+	con	none	25°C	0.0	U			1978FFa (16135)	99
							K(Cs+CsSO4)=0.08		

Cs+	sol	oth/un	25°C	0.70M	C		K1=0.39	1975EWa (16136)	100

Mixed medium of NaCl, KCl, MgCl2, NaClO4, Mg(ClO4)2, Na2SO4, CsCl.
Method: solubility of gypsum.

Cs+	oth	oth/un	25°C	0.28M	U		K1=0.33	1975REa (16137)	101

Cs+	sp	oth/un	20°C	2.30M	U	M		1971GFa (16138)	102
							K(Cs2L+TiOL)=-0.5		

Medium: H2SO4

****

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

Pertechnetiate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	con	none	18°C	0.0	U		K1=0.64	1963SKa (17247)	103

****

VO4--- H3L CAS 15457-75-7 (1586)
Vanadate; VO2(OH)3-- or polymers

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	gl	R4N.X	20°C	0.10M	U			1963SGd (17378)	104
							K(Cs+H15L10)=2.20		
							K(Cs+H14L10)=3.18		

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	gl	R4N.X	25°C	0.50M	U		K1=0.84	1967CIa (18277)	105
							K(Cs+HL)=0.04		

Medium: Me4NCl

****
C2H4O2 HL Acetic acid CAS 64-19-7 (36)
Ethanoic acid; CH3.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	gl	oth/un	25°C	0.0	M	T	K1=0.00	2001RFa (19933)	106

Calculated from data for 0.01 m NaOH/0.02 m HL. Data for 25-175 C.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	gl	R4N.X	25°C	0.16M	U	I	K1=-0.33	1985RSa (19934)	107

K1=-0.29 (I=0.04); -0.33 (0.25); -0.29 (0.49); -0.18 (1.00)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	gl	non-aq	25°C	100%	U	H	K1=6.04	1981TMb (19935)	108

Medium: Glacial acetic acid. Alternative method: Spectrophotometry.
DH(K1)=-18.0 kJ mol-1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	sp	non-aq	25°C	100%	U		K1=6.78	1961PSa (19936)	109

Medium: ethanoic acid

****
C2H6O L Ethanol CAS 64-17-5 (1913)
Ethanol; CH3.CH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	cal	oth/un	25°C	0.10M	U	H		1975BBa (22026)	110

DH=-403.8 kJ mol-1 in H2SO4

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	nmr	oth/un	20°C	0.0	C		K1=1.36	1989GSc (22142)	111

Method: 1H and 133Cs pulsed gradient spin-echo nmr. Medium: D2O.

****

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
Cs+	gl	R4N.X	25°C	0.50M	U		K1=1.02 K(Cs+HL)=0.09	1967CIa (23266)	112

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
Cs+	gl	R4N.X	25°C	0.50M	U		K1=1.6 K(Cs+HL)=0.24	1967CIa (23362)	113

Medium: Me4NCl

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	nmr	R4N.X	25°C	1.0M	C		K1=1.0	2003PPa (23452)	114

Method: NMR Cs-133; in 1 M Me4NCl/Me4NOH

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	gl	R4N.X	25°C	0.50M	U		K1=1.40 K(Cs+HL)=0.35	1967CIa (28399)	115

Medium: Me4NCl

****

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
Cs+	ISE	oth/un	25°C	0.10M	U		K1=-0.15	1964RZa (30609)	116
Cs+	gl	R4N.X	?	0.28M	U		K1=-0.1	1963EDa (30610)	117

Medium: Me4NBr

****

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
-------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=2.43        1974ESa (34657) 118
Medium: DMSO
*************************************************************************
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
-------------------------------------------------------------------------
Cs+        gl  diox/w 30°C  75%  U        K1=7.32   B2=11.73  1975MMa (37936) 119
*************************************************************************
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
-------------------------------------------------------------------------
Cs+        dis non-aq 25°C 100%  C        K1=3.06        1999KKb (42102) 120
Medium: MIBK. Method: distribution of metal picrates into MIBK
containing HO(CH2.CH2.O)n.C12H25, n=4, 6 or 8.
-------------------------------------------------------------------------
Cs+        dis oth/un 25°C  dil  C                       1998TKa (42103) 121
                                          K(CsA+L)=4.49
Self medium, I<0.03 M. Method: Extraction of CsAL into dichloromethane.
A is 18-crown-6.
-------------------------------------------------------------------------
Cs+        con none   30°C  0.0  U  I M   K1=1.44        1979PSa (42104) 122
-------------------------------------------------------------------------
Cs+        dis none   25°C 0.00  U  I     K1=2.07        1972IWc (42105) 123
In nitrobenzene: K1=2.43
-------------------------------------------------------------------------
Cs+        con none   25°C 0.00  M        K1=2.07        1971YIa (42106) 124
-------------------------------------------------------------------------
Cs+        dis oth/un 25°C  var  U        K1=2.7         1970SSb (42107) 125
Method: paper chromatography
*************************************************************************
C6H8O7                H3L   Citric acid      CAS 77-92-9  (95)
2-Hydroxypropane-1,2,3-tricarboxylic acid; HOOCCH2.CH(OH)(COOH).CH2COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Cs+        gl  KCl    37°C 0.15M C        K1=0.47   B2=0.07   1981CDb (46067) 126
-------------------------------------------------------------------------
Cs+        ISE oth/un 25°C 0.10M U        K1=0.32        1964RZa (46068) 127
*************************************************************************
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
-------------------------------------------------------------------------
```

```
Cs+        sp  R4N.X  25°C 0.10M C      T K1=0.09        1985HAd (46762) 128
**************************************************************************
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
--------------------------------------------------------------------------
Cs+        gl  R4N.X  25°C 0.10M U        K1=2.51        1991BSa (51534) 129
                                        B(CsHL)=11.32
                                        B(CsH2L)=17.87
                                        B(Cs2L)=2.94
                                        B(CsHL2)=12.19
**************************************************************************
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
--------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=1.80        1989KSa (51769) 130
Medium: tetrahydrofuran/CHCl3 4:1 (vol)
--------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=1.8         1982YSa (51770) 131
Medium: tetrahydrofuran+CHCl3 4:1(vol); M is 2,4-dinitrophenolate
**************************************************************************
C6H18O3Si3              L                     CAS 541-05-9  (1283)
Hexamethyl cyclotrisiloxane; ((CH3)2SiO)3
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Cs+        con alc/w  25°C 100%  U        K1=<-0.3       1980OPa (52214) 132
Medium: MeOH, 0.1 M Me4NBr
**************************************************************************
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
--------------------------------------------------------------------------
Cs+        oth diox/w 25°C  75%  U        K1=3.10   B2=6.99   1979MMa (61301) 133
**************************************************************************
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
--------------------------------------------------------------------------
Cs+        cal non-aq 25°C 100%  C   H    K1=0.56   B2= 1.16  1996OKa (62664) 134
Medium: DMF, 0.10 M Et4NCl. DH(K1)=-16.7 kJ mol-1, DS(K1)=-45 J K-1 mol-1;
DH(K2)=5, DS(K2)=28.
--------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=2.5         1993EVa (62665) 135
Medium: THF+CHCl3 (4:1 vol)
```

Cs+ con non-aq 25°C 100% C K1=1.60 B2= 2.34 1987ZBb (62666) 136
Medium: MeOH.

Cs+ vlt non-aq 25°C 100% U K1=1.43 1980MDa (62667) 137
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
---
Cs+ con non-aq 25°C 100% U I K1=1.8 1993EVa (62983) 138
Medium: THF+CHCl3 4:1(vol). In 100% THF: K1=1.8
****
C8H18O5 L Tetra-Et-Glycol CAS 112-60-7 (5664)
2,2'-(Oxybis(2,2-ethanediyloxy))-bis-ethanol; O(CH2.CH2.O.CH2.CH2.OH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ nmr oth/un 20°C 0.0 C K1=3.25 1989GSc (63002) 139
Method: 1H and 133Cs pulsed gradient spin-echo nmr. Medium: D2O.
****
C8H20N4 L Cyclen CAS 294-90-6 (10)
1,4,7,10-Tetraazacyclododecane; cyclo(-(NH.CH2.CH2.)4-)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ EMF non-aq 25°C 100% U I K1=2.78 1996WPa (63291) 140
Medium: acetonitrile, 0.05 M NEt4ClO4. 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

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ con non-aq 25°C 100% U K1=2.45 1989KSa (63309) 141
Medium: tetrahydrofuran/CHCl3 4:1 (vol)
****
C9H11O2F5 HL CAS 2145-68-8 (1251)
1,1,1,2,2-Pentafluoro-6,6-dimethyl-3,5-heptanedione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ oth diox/w 25°C 75% U K1=3.54 B2=7.17 1979MMa (66534) 142
****
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

```
-------------------------------------------------------------------------------
Cs+        gl  diox/w 30°C  75%  U        K1=4.12   B2=7.80   1975MMa (67743) 143
*******************************************************************************
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
-------------------------------------------------------------------------------
Cs+        con alc/w  25°C 100%  U        K1=<-0.3       1980OPa (67966) 144
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
-------------------------------------------------------------------------------
Cs+        con non-aq 22°C 100%  U        K1=0.90        1981SKd (68121) 145
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
-------------------------------------------------------------------------------
Cs+        gl  none   25°C  0.0  C                      1990CDc (68510) 146
                                       Kso(CsH3L)=-18.4
Additional technique: spectrophotometry.
*******************************************************************************
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
-------------------------------------------------------------------------------
Cs+        oth diox/w 25°C  75%  U        K1=3.52   B2=7.36   1979MMa (71107) 147
*******************************************************************************
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
-------------------------------------------------------------------------------
Cs+        gl  oth/un 25°C 0.32M U      T K1=0.15        1965BCa (73685) 148
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
-------------------------------------------------------------------------------
Cs+        gl  R4N.X  25°C 0.10M C      T K1=1.06        1991SMa (74710) 149
IUPAC evaluation
```

```
------------------------------------------------------------------------------
Cs+        gl  oth/un 25°C 0.25M U   H    K1=1.19        1986RSa (74711) 150
                                          B(CsHL)=6.66
------------------------------------------------------------------------------
Cs+        gl  oth/un 25°C 0.32M U        K1=0.9    B2=0.90   1965BCa (74712) 151
                                          K(Cs+HL) < -0.3
Medium: CsCl
******************************************************************************
C10H20O5                L    15-Crown-5       CAS 33100-27-5  (576)
1,4,7,10,13-Pentaoxacyclopentadecane; cyclo(-(O.CH2.CH2)5-)
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Cs+        ISE alc/w  25°C 100%  C  I   T K1=2.69   B2= 4.49  2003ADa (75982) 152
IUPAC Tentative. Medium: 0-0.1 M various. DH(K1)=-32.9 kJ mol-1
In H2O: K1=0.8, DH(K1)=-5.4
------------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  C   H    K1=2.72   B2= 3.83  1999WBa (75983) 153
Medium: N,N-dimethylformamide. By calorimetry: DH(K1)=-19.2 kJ mol-1,
DH(K2)=-18.5 kJ mol-1.
------------------------------------------------------------------------------
Cs+        vlt non-aq 25°C 100%  C  I     K1=3.2         1999WKb (75984) 154
Medium: acetonitrile, 0.10 M Et4NClO4. Also data for TMS, propylene
carbonate, acetone, formamide, DMF, DMA, DMSO, MeOH, EtOH.
------------------------------------------------------------------------------
Cs+        nmr non-aq  RT  100%  U        K1=1.88        1996GMc (75985) 155
Method: 133Cs nmr.  Medium: N,N-dimethylformamide
------------------------------------------------------------------------------
Cs+        cal non-aq 25°C 100%  M   H    K1=3.68        1994BCd (75986) 156
Medium: acetone. DH(K1)=-19.4 kJ mol-1, TDS=1.5
------------------------------------------------------------------------------
Cs+        nmr non-aq 25°C 100%  U        K1=2.88        1991SKa (75987) 157
Medium: MeCN
------------------------------------------------------------------------------
Cs+        cal non-aq 25°C 100%  C   H    K1=3.11        1988BUb (75988) 158
Medium: acetonitrile. DH(K1)=-27.7 kJ mol-1, DS(K1)=-33.6 J K-1 mol-1.
------------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  C      T K1=3.1         1988TKa (75989) 159
Medium: MeCN
------------------------------------------------------------------------------
Cs+        ISE alc/w  25°C  90%  U        K1=2.10        1987KHa (75990) 160
Medium: 90% w/w MeOH/H2O
------------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  C  I     K1=2.78   B2= 4.52  1987ZBb (75991) 161
Medium: MeOH. In 70% w/w MeOH/H2O, K1=2.49, K2=1.48.
------------------------------------------------------------------------------
Cs+        cal alc/w  25°C 100%  U   H  T K1=2.18        1980LIa (75992) 162
Medium: MeOH. DH=-49.0 kJ mol-1.
------------------------------------------------------------------------------
Cs+        dis non-aq 25°C 100%  U        K1=2.6         1980TYa (75993) 163
```

Medium: propylene carbonate

Cs+ EMF oth/un 25°C var C T K1=0.79 1979HRa (75994) 164
Method: ISE based on cation exchange membrane. Medium: aqueous, containing 0.06-0.25 m ligand.

Cs+ cal oth/un 25°C 0.10M U H T K1=0.8 1976ITb (75995) 165
DH=-5.40 kJ mol-1.
****
C10H22O5 L Tetraglyme CAS 143-24-8 (121)
2,5,8,11,14-Pentaoxapentadecane; (CH3.O.CH2.CH2.O.CH2.CH2.)2O

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ dis non-aq 25°C 100% C K1=3.85 1998KSc (76442) 166
Medium: 1,2-dichloroethane.

Cs+ con non-aq 25°C 100% U I K1=2.6 1993EVa (76443) 167
Medium: THF+CHCl3 4:1(vol). In 100% THF: K1=2.5

Cs+ con alc/w 25°C 100% U K1=1.45 1975CJa (76444) 168
Medium: MeOH
****
C11H18N2O8 H4L PDTA CAS 4408-81-5 (1655)
1,2-Diaminopropane-N,N,N',N'-tetraethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ oth R4N.X 25°C 0.50M U 1971CSb (79272) 169
K(Cs+H2L)=0.71
Method: polarimetry. Medium: Me4NOH
****
C11H20O2 HL Dipivaloylmeth. CAS 1118-71-4 (363)
2,2,6,6-Tetramethyl-3,5-heptanedione; (CH3)3C.CO.CH2.CO.C(CH3)3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ gl diox/w 30°C 75% U K1=3.86 1975MMa (79746) 170
****
C11H22O5 L 16-Crown-5 CAS 55477-28-8 (1592)
1,4,7,10,13-Pentaoxacyclohexadecane; cyclo(-(O.CH2.CH2)5.CH2.CH2-)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ dis none 25°C 0.0 C M 1989TKc (79851) 171
Method: extraction of metal picrate/L from H2O into benzene.
K(Cs+HA(org)+L(org)=CsAL(org)+H)=-1.49. HA is picric acid.

Cs+ con non-aq 25°C 100% C I K1=2.4 1988TKa (79852) 172
Medium: MeCN. In propylene carbonate K1=2.2; in MeOH 2.1

****
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
---
Cs+ dis non-aq 25°C 100% C K1=4.11 1998KSc (80071) 173
Medium: 1,2-dichloroethane.

Cs+ dis oth/un 25°C var U K1=2.1 1970SSb (80072) 174
Method: paper chromatography
****
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
---
Cs+ oth R4N.X 25°C 0.50M U 1973CSa (82289) 175
K(Cs+H2L)=1.0
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
---
Cs+ con non-aq 25°C 100% U K1=2.32 1982YSa (82640) 176
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
---
Cs+ cal alc/w 25°C 100% U H K1=2.55 1980LIb (82651) 177
Medium: MeOH. DH=-6.36 kJ mol-1.
****
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
---
Cs+ oth diox/w 25°C 75% U K1=3.57 B2=7.27 1979MMa (82857) 178
****
C12H24O2 HL Lauric acid CAS 143-07-7 (2540)
Dodecanoic acid, CH3.(CH2)10.COOH

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

```
Cs+        gl  oth/un 26°C 0.00  U                        1976HYa (83111) 179
                                          B(CsHL2)=9.85
********************************************************************************
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
--------------------------------------------------------------------------------
Cs+        nmr non-aq  RT  100%  U        K1=0            1996GMc (83134) 180
Method: 133Cs nmr.  Medium: N,N-dimethylformamide
--------------------------------------------------------------------------------
Cs+        nmr non-aq 25°C 100%  U        K1=1.75         1991SKa (83135) 181
In acetonitrile.
--------------------------------------------------------------------------------
Cs+        nmr non-aq 25°C 100%  U    M                   1981RPa (83136) 182
                                          K(CsNCS+L)=1.16
Medium: MeNO2. K(CsNCS+L)=0 in DMSO; 0.56 in DMF; 0.61 in acetone;
0.97 in MeCN; 0.96 in propylene carbonate
********************************************************************************
C12H24O4S2              L                        (6528)
7,10,13,16-Tetraoxa-1,4-dithiacyclooctadecane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Cs+        nmr non-aq 25°C 100%  U        K1=0.98         1991SKa (83149) 183
In acetonitrile.
********************************************************************************
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
--------------------------------------------------------------------------------
Cs+        ISE alc/w  25°C 100%  C  IH  T K1=4.6    B2= 6.66  2003ADa (83312) 184
IUPAC Tentative. Medium: 0-0.1 M various.  DH(K1)=-47.2 kJ mol-1
In H2O: K1=0.96, DH(K1)=-17. In PC K1=4.50, DH(K1)=-43
--------------------------------------------------------------------------------
Cs+        dis non-aq 25°C 100%  U        K1=7.96   B2=10.54  2000KSa (83313) 185
Medium: 1,2-dichloroethane
--------------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  C T H    K1=4.49         2000SSc (83314) 186
Medium: acetonitrile. Data for 15-45 C. DH(K1)=-16  kJ mol-1,
DS(K1)=33 J K-1 mol-1.
--------------------------------------------------------------------------------
Cs+        cal non-aq 25°C 100%  C   H    K1=3.62         1999WBa (83315) 187
Medium: N,N-dimethylformamide. DH(K1)=-48.4 kJ mol-1.
--------------------------------------------------------------------------------
Cs+        dis non-aq 25°C 100%  C  I                     1998TKa (83316) 188
                                          K(Cs+A+L(org)=CsAL(org))=5.52
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.
```

Cs+ nmr non-aq RT 100% U K1=3.42 B2= 4.65 1996GMc (83317) 189
Method: 133Cs nmr. Medium: N,N-dimethylformamide

Cs+ cal alc/w 25°C 80% C H K1=3.40 1995KZa (83318) 190
Medium: 80% v/v CH3OH/H2O. DH(K1)=-27.7 kJ mol-1, DS(K1)=-28 J K-1 mol-1

Cs+ cal non-aq 25°C 100% U IH T K1=4.29 1995OKb (83319) 191
Medium: Acetonitrile, 0.1 M Et4NClO4. DH(K1)=-19 kJ mol-1
IN propylene carbonate K1=4.49, DH(K1)=-44

Cs+ cal non-aq 25°C 100% M H K1=4.51 1994BCd (83320) 192
Medium: acetone. DH(K1)=-52.8 kJ mol-1, TDS=-27.2

Cs+ cal non-aq 25°C 100% U H T K1=3.64 1994OOa (83321) 193
Medium: DMF, 0.1 M Et4NClO4. DH(K1)=-50.0 kJ mol-1, DS=-98 J K-1 mol-1

Cs+ dis non-aq 25°C 100% U 1993INa (83322) 194
B(CsPL)=5.17
K is the equilibrium constant for extraction of the metal picrate (P) into CH2Cl2. For extraction from D2O, B=5.17.

Cs+ con oth/un 25°C 0.05M M K1=4.37 1992BUb (83323) 195
K1=4.44 (by calorimetry)

Cs+ cal R4N.X 25°C 0.10M C H K1=0.92 1992OIa (83324) 196
DH(K1)=-19.3 kJ mol-1, DS=-47 J K-1 mol-1

Cs+ ix none 25°C 0.0 U I K1=2.9 1991BMb (83325) 197
Ligand bound to silica gel. In acetone, K=3.7

Cs+ nmr non-aq 25°C 100% U K1=>4 K2=1.37 1991SKa (83326) 198
Medium: MeCN

Cs+ oth non-aq 25°C 100% C K1=2.63 1989BBh (83327) 199
Method: FABMS. Medium: glycerol.

Cs+ nmr oth/un 20°C 0.0 C K1=8.35 1989GSc (83328) 200
Method: 1H and 133Cs pulsed gradient spin-echo nmr. Medium: D2O.

Cs+ cal non-aq 25°C 100% C H K1=5.07 1988BUb (83329) 201
Medium: acetonitrile. DH(K1)=-15.6 kJ mol-1, DS(K1)=39.6 J K-1 mol-1.

Cs+ ISE alc/w 25°C 90% U K1=3.49 1987KHa (83330) 202
Medium: 90% w/w MeOH/H2O

Cs+ nmr non-aq 25°C 100% U K1=4.03 1985BPa (83331) 203
Medium: DMF. In MeCN: K1=4.83

Cs+ con alc/w 25°C 100% U K1=4.49 1983LSa (83332) 204

Medium: MeOH

Cs+ nmr oth/un 25°C ? U K1=4.03 1982KPa (83333) 205

Cs+ cal alc/w 25°C 100% U H T K1=4.79 B2=6.85 1980LIa (83334) 206
Medium: MeOH. DH(K1)=-47.2 and DH(K2)=-13.9 kJ mol-1.

Cs+ dis non-aq 25°C 100% U K1=4.4 1980TYa (83335) 207
Medium: propylene carbonate

Cs+ EMF oth/un 25°C var C T K1=0.98 1979HRa (83336) 208
Method: ISE based on cation exchange membrane. Medium: aqueous,
containing 0.06-0.25 m ligand.

Cs+ nmr non-aq 24°C 100% U T H K1=5.00 B2=6.90 1977MDa (83337) 209
Medium: pyridine. DH(K2)=-24.2 kJ mol-1 (25 C). 12 C: K1=6.00, K2=2.10;
-1 C: 6.00, 2.30; -18 C: 6.00, 2.60; -29 C: 6.00, 2.8; -38 C: 6.70, 3.1

Cs+ nmr non-aq 25°C 100% U I K2=1.87 1977MPa (83338) 210
K1>5.7
Medium: pyridine. K1>5.30, K2=1.53 in acetone; 3.95, 0.38 in DMF; 4.17, 1.04
in PC; >4.0, 0.57 in MeCN; K1=3.04 in DMSO

Cs+ cal alc/w 25°C 70% U H K1=2.84 1976ITa (83339) 211
Medium: 70% w/w MeOH/H2O. DH(K1)=-33.8 kJ mol-1.

Cs+ cal oth/un 25°C 0.10M U H T K1=0.99 1976ITb (83340) 212
DH=-15.9 kJ mol-1.

Cs+ kin none 25°C 0.0 U K1=3.2 1976LFa (83341) 213

Cs+ ISE alc/w 25°C 100% A K1=4.62 B2=5.92 1971FRa (83342) 214
Medium: MeOH. In H2O: K1=0.8

****

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

---

Cs+ nmr non-aq RT 100% U K1=0.91 1996GMc (83823) 215
Method: 133Cs nmr. Medium: N,N-dimethylformamide

Cs+ cal non-aq 25°C 100% M H K1=1.80 1994BCd (83824) 216
Medium: acetone. DH(K1)=-23.9 kJ mol-1, TDS=-13.7

Cs+ nmr non-aq 25°C 100% U K1=2.29 1991SKa (83825) 217
In acetonitrile.

Cs+ cal non-aq 25°C 100% U H K1=2.69 1986BUb (83826) 218
In CH3CN. DH=-6.0 kJ mol-1

Cs+ con non-aq 25°C 100% U K1=2.48 1980KMb (83827) 219
Medium: MeCN
****
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
---
Cs+ con non-aq 25°C 100% U K1=3.4 1993EVa (83995) 220
Medium: THF+CHCl3 (4:1 vol). Also data for other solvents

Cs+ cal oth/un 25°C 0.05M M K1=1.76 1992BUb (83996) 221
K1=1.72 (by conductivity)

Cs+ con alc/w 25°C 100% U K1=1.85 1975CJa (83997) 222
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
---
Cs+ EMF non-aq 25°C 100% C K1=2.47 1997WWa (84086) 223
Medium: MeOH, 0.05M Et4NClO4.
Method: Ag/Ag+ electrode; by competition with Ag+.
****
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
---
Cs+ nmr none 25°C 0 U M 1996RSa (84408) 224
B(CsTmDOTP)=1.75
B(Cs2TmDOTP)=3.37
B(Cs3TmDOTP)=4.82
B(CsTmDOTPH)=9.18
B(CsTmDOTPH2)=16.02, B(Cs2TmDOTPH)=10.78, B(Cs3TmDOTPH)=12.22
mixed-metal complexes in the Cs(I)-Tm(III)-DOTP terner system
---
Cs+ gl R4N.X 25°C 0.10M M 1990DSa (84409) 225
B(CsH2L)=27.16
B(CsH3L)=36.22
B(CsH4L)=43.65
Medium: Me4NNO3
****
C13H11NO L (6871)
Diphenylformamide; HCON(C6H5)2

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

---
Cs+ sp non-aq 25°C 100% U T H 1993KPa (85009) 226
K(2CsH-1L=(CsH-1L)2)=2.20
Medium: HEF -15 to - 25 C. K=2.43(-15C)
DH=-8.4 kJ mol-1; DS=16.7.
****
C13H26O5 L (6410)
15,15-Dimethyl-1,4,7,10,13-pentaoxacyclohexadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ con non-aq 25°C 100% C I K1=2.40 1992TFa (86469) 227
Medium: acetonitrile. In propylene carbonate, K1=1.61.

Cs+ con alc/w 25°C 100% U K1=1.73 1991IOa (86470) 228
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
---
Cs+ con non-aq 25°C 100% C I K1=3.29 2000TMb (86494) 229
Medium: CH3CN. In other media, K1=2.92 (propylene carbonate), 3.00 (MeOH), 1.89 (DMF), 1.54 (DMSO).

Cs+ con oth/un 25°C dil C K1=0.71 1999TMa (86495) 230
Self medium (CsCl).
****
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
---
Cs+ dis non-aq 24°C 100% C 2002MRd (88248) 231
K(Cs+A+L)=4.65
Medium: CDCl3. HA is picric acid.

Cs+ con non-aq 25°C 100% C K1=3.00 2000ICa (88249) 232
Medium: nitromethane.

Cs+ con non-aq 25°C 100% C H K1=0.85 1999WBa (88250) 233
Medium: N,N-dimethylformamide. By calorimetry: DH(K1)=-11.2 kJ mol-1, DH(K2)=-9.8 kJ mol-1.

Cs+ vlt non-aq 25°C 100% C I K1=3.4 1999WKb (88251) 234
Medium: acetonitrile, 0.10 M Et4NClO4. Also data for TMS, propylene carbonate, acetone, formamide, DMF, DMA, DMSO, MeOH, EtOH.

Cs+ nmr non-aq RT 100% U K1=1.24 1996GMc (88252) 235

Method: 133Cs nmr. Medium: N,N-dimethylformamide

Cs+ oth oth/un 25°C 0 U K1=2.30 1994OUa (88253) 236

Cs+ nmr non-aq 25°C 100% U K1=2.11 1991SKa (88254) 237
Medium: MeCN

Cs+ cal non-aq 25°C 100% C H K1=3.43 1988BUb (88255) 238
Medium: acetonitrile. DH(K1)=-12.5 kJ mol-1, DS(K1)=23 J K-1 mol-1.

Cs+ con non-aq 25°C 100% C I K1=2.39 1988TKb (88256) 239
Medium: MeCN. In propylene carbonate K1=2.03; in MeOH 2.15

Cs+ con non-aq 25°C 100% C T H K1=2.46 1988TMb (88257) 240
Medium: acetonitrile. Data for 15-35 C. Anion: tetraphenylborate.
DH(K1)=-32.9 kJ mol-1, DS(K1)=-63.7 J K-1 mol-1.

Cs+ sp non-aq 22°C 100% U K1=4.76 1987CCc (88258) 241
In deuterochloroform

Cs+ ISE alc/w 25°C 90% U K1=2.08 1987KHa (88259) 242
Medium: 90% w/w MeOH/H2O

Cs+ con non-aq 25°C 100% C I K1=2.21 B2= 3.74 1987ZBb (88260) 243
Medium: MeOH. In 70% w/w MeOH/H2O, K1=1.66, K2=1.02.

Cs+ con alc/w 25°C 100% U K1=1.91 1983LSa (88261) 244

Cs+ con non-aq 25°C 100% U K1=2.03 1982TAa (88262) 245
Medium: propylene carbonate

Cs+ cal alc/w 25°C 70% U H K1=1.70 1976ITa (88263) 246
Medium: 70% w/w MeOH/H2O. DH(K1)=-10.2 kJ mol-1.
****
C14H20O5 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
---
Cs+ cal alc/w 25°C 100% U H K1=1.30 1987ZBa (88387) 247
Medium: MeOH. DH=-11.7 kJ mol-1; DS=-14.4.
****
C14H22N2O8 H4L CDTA CAS 482-54-2 (200)
trans-1,2-Diaminocyclohexane-N,N,N',N'-tetraethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ oth R4N.X 25°C 0.50M U 1971CSa (88620) 248
K(Cs+H2L)=0.85
Method: polarimetry. Medium: Me4NOH

****
C14H24O8S L CAS 63689-67-8 (2274)
1,4,7,10,13,16-Hexaoxa-19-thia-cycloheneicos-17,21-dione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ cal alc/w 25°C 100% U H K1=1.91 1980LIb (90046) 249
Medium: MeOH. DH=-12.7 kJ mol-1.
****
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
---
Cs+ gl R4N.X 25°C 0.10M U K1=3.2 1990AFa (90221) 250
B(CsHL)=12.4
****
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
---
Cs+ ISE alc/w 25°C 100% A K1=2.78 B2=4.69 1971FRa (90269) 251
Medium: MeOH
****
C14H28N2O4 L Cryptand 2,1,1 CAS 31250-06-3 (836)
1,10-Diaza-4,7,13,18-tetraoxabicyclo[8,5,5]eicosane (2,1,1);

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ nmr non-aq 25°C 100% C I K1=0.74 1992SLb (90354) 252
Medium: dimethylacetamide. In N-methylformamide, K1=ca. 0.0.
Method: 133Cs nmr.

Cs+ cal alc/w 25°C 100% U H K1=2.50 1986BUd (90355) 253
In MeOH. DH=-6.5 kJ mol-1

Cs+ EMF non-aq 25°C 100% C K1=<2.0 1979BLb (90356) 254
Method: Ag electrode; competition with Ag+. Medium: MeOH, 0.05 M
Me4NClO4.

Cs+ gl R4N.X 25°C 0.05M C I K1=<2.0 1975LSc (90357) 255
In 95% MeOH, 0.05 M Me4NBr: K1 < 2
****
C14H28N2O4 L Cryptand 2,2,0 CAS 95334-31-9 (6544)
4,7,13,16-Tetraoxa-1,10-diazabicyclo[8.8.2]eicosane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ ISE R4N.X 25°C 0.05M U I K1=<2 1991LSb (90460) 256

Medium: 0.05 M Et4NClO4. In MeCN: K1=5.0; DMF: K1=2.7

****

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
Cs+	con	alc/w	25°C	100%	U		K1=1.60	1975CJa (90491)	257

Medium: MeOH

****

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

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	nmr	non-aq	25°C	100%	U		K1=4.24	1991SKa (90516)	258

In acetonitrile.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	cal	alc/w	25°C	100%	U	H	K1=5.01	1980LIa (90517)	259

Medium: MeOH. DH=-46.8 kJ mol-1.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	ISE	alc/w	25°C	100%	A		K1=5.02	1971FRa (90518)	260

Medium: MeOH

****

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
Cs+	gl	alc/w	25°C	95%	C		K1=3.85	2004KVa (90576)	261

Medium: 95% MeOH/H2O, 0.01 M Et4NClO4.

****

C14H30N2O5 L (6722)

7,13-Bis(2-hydroxyethyl)-1,4,10-trioxa-7,13-diazacyclopentadecane

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	ISE	non-aq	25°C	100%	U		K1=2.11	1993RPa (90627)	262

Medium: dimethylformamide, 0.05 M Et4NClO4. By competition with Ag+.

****

C14H30O7 L CAS 1072-40-8 (2499)

2,5,8,11,14,17,20-Heptaoxaheneicosane; CH3.O.(CH2.CH2.O)6.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	dis	non-aq	25°C	100%	C		K1=5.93	1998KSc (90687)	263

Medium: 1,2-dichloroethane.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	con	non-aq	25°C	100%	U		K1=3.9	1993EVa (90688)	264

Medium: THF+CHCl3 (4:1 vol). Also data for other solvents

Cs+ con alc/w 25°C 100% U K1=2.17 1975CJa (90689) 265
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
---
Cs+ gl diox/w 30°C 75% U K1=3.42 1954FUa (91544) 266
****
C15H22O5 L CAS 65112-33-6 (6058)
18-Methoxy-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
---
Cs+ cal alc/w 25°C 100% U H K1=1.81 1987ZBa (92248) 267
Medium: MeOH. DH=-20.0 kJ mol-1; DS=-32.6.
****
C15H24O6 HL CAS 57722-03-9 (2353)
1-Hydroxy-2-(1,4,7,10,13-pentaoxatridecyl)benzene; HO.C6H4.O(CH2CH2O)4CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ sp alc/w 25°C 100% U K1=3.15 1981EMb (92342) 268
Medium: MeOH
****
C15H26O8 L CAS 96517-83-8 (2272)
1,4,7,10,13,16-Hexaoxacycloheneicos-17,21-dione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ cal alc/w 25°C 100% U H K1=1.02 1980LIb (92456) 269
Medium: MeOH. DH=-48.1 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
---
Cs+ EMF non-aq 25°C 100% U K1=2.29 2001WBa (92573) 270
Medium: DMF, 0.05 M Et4NClO4. Also data for the 1,4,7-tris((S)-2-hydroxy-
2-phenyethyl- derivative (K1=1.62). Competition with Ag+.
****
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
---

Cs+ con non-aq 22°C 100% U K1=1.51 1981SKd (92602) 271
Medium: CH3CN
****
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
---
Cs+ con non-aq 25°C 100% U K1=1.8 1982YSa (94097) 272
Medium: tetrahydrofuran+CHCl3 4:1(vol); M is 2,4-dinitrophenolate
****
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
---
Cs+ kin alc/w 25°C 100% U K1=1.00 1992CDc (94242) 273
Medium:MeOH. Data also for other related ligands
****
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
---
Cs+ dis non-aq 24°C 100% C 1977MTc (94341) 274
K(CsA+L)=4.70
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(MOEO)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
---
Cs+ dis non-aq 25°C 100% U H 1979KLa (94352) 275
K(Cs(picrate)+L)=3.70
Medium: CHCl3
****
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
---
Cs+ con non-aq 25°C 100% C K1=3.91 2000ICa (94385) 276
Medium: nitromethane.

Cs+ dis non-aq 25°C 100% U K1=7.50 B2=10.70 2000KSa (94386) 277
Medium: 1,2-dichloroethane

Cs+ oth alc/w 35°C 3.0% C K1=1.11 1999MTd (94387) 278

Method: capillary zone electrophoresis. Medium: 3% v/v EtOH/H20, 0.005 M phosphate buffer, pH 7.0

Cs+ cal non-aq 25°C 100% C H K1=3.26 1999WBa (94388) 279
Medium: N,N-dimethylformamide. DH(K1)=-27.2 kJ mol-1.

Cs+ dis oth/un 25°C 0 U K1=3.97 1994OUa (94389) 280

Cs+ nmr non-aq 25°C 100% U K1=1.80 1991SKa (94390) 281
Medium: MeCN

Cs+ sp non-aq 22°C 100% U K1=6.28 1987CCc (94391) 282
In deuterochloroform

Cs+ ISE alc/w 25°C 90% U K1=3.45 1987KHa (94392) 283
Medium: 90% w/w MeOH/H2O

Cs+ cal non-aq 25°C 100% C H K1=3.95 B2= 6.28 1986ICa (94393) 284
Medium: MeOH. DH(K1)=-42.30 kJ mol-1, DS(K1)=-66.1 J K-1 mol-1;
DH(K2)=-43, DS(K2)=-101.

Cs+ sp diox/w 25°C 0.0 U I K1=2.08 1983KOa (94394) 285
On PVA. In 24.4% w/w dioxan/H2O. Data given for 9.7-84.6 w/w mixtures.

Cs+ sp mixed 25°C 0.0 U I K1=1.86 1983KOa (94395) 286
On PVA. In 21.9% w/w tetrahydrofuran/H2O. Data given for 11.1-86.4 w/w mix

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Cs+ sp alc/w 25°C 100% U K1=3.66 1981EMb (94396) 287
Medium: MeOH

Cs+ sp diox/w 25°C 100% U M 1981SSd (94397) 288
K(Cs(Picrate)+L)=4.82

Cs+ dis non-aq 25°C 100% C T HM 1975SIc (94398) 289
K(Cs+A+L(org)=CsAL(org))=3.07
K(Cs+A+2L(org)=CsAL2(org))=5.6
K(CsAL+L)=2.5
Method: Extraction from H2O into benzene. HA is picric acid. DH(CsAL(org))
=-66.9 kJ mol-1, DS(CsAL(org))=-166 J K-1 mol-1.

****

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

---

Cs+ cal alc/w 25°C 100% U H K1=2.62 1987ZBa (94471) 290
Medium: MeOH. DH=-33.5 kJ mol-1; DS=-62.1.

****

C16H24O14 H4L CAS 61696-54-6 (6104)
1,4,7,10,13,16-Hexaoxacyclooctadeca-2,3,11,12-tetracarboxylic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ gl R4N.X 25°C 0.10M M K1=3.3 1991FGb (94492) 291
B(CsHL)=8.1
Medium: 0.10 M Et4NNO3.
****
C16H25NO4 L (7444)
1-Aza-4,7,10,13-tetraoxa-1-phenyl-cyclopentadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ nmr alc/w 20°C 100% C K1=6.13 1989GSc (94515) 292
Method: 1H and 133Cs pulsed gradient spin-echo nmr. Medium: MeOH
****
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
---
Cs+ gl R4N.X 25°C 0.10M U K1=3.1 1990AFa (94587) 293
B(CsHL)=13.1
****
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
---
Cs+ gl R4N.X 25°C 0.10M U K1=2.8 1990AFa (94601) 294
B(CsHL)=12.4
****
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
---
Cs+ con alc/w 25°C 100% U K1=1.66 1975CJa (94629) 295
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
---
Cs+ ISE oth/un 25°C dil A I K1=0.8 1971FRa (95099) 296
In MeOH: K1=4.30, K2=1.52
****
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
--------------------------------------------------------------------------
Cs+        cal non-aq 25°C 100%  C   H    K1=3.5         1999WBa (95189) 297
Medium: N,N-dimethylformamide. DH(K1)=-36.6 kJ mol-1.
--------------------------------------------------------------------------
Cs+        cal non-aq 25°C 100%  M   H    K1=4.54        1994BCd (95190) 298
Medium: acetone. DH(K1)=-40.0 kJ mol-1, TDS=-14.2
--------------------------------------------------------------------------
Cs+        nmr non-aq 25°C 100%  C  I     K1=3.07        1992SLb (95191) 299
Medium: dimethylacetamide. In N-methylformamide, K1=2.4.
Method: 133Cs nmr.
--------------------------------------------------------------------------
Cs+        cal non-aq 25°C 100%  U   H    K1=4.68        1986BUb (95192) 300
In CH3CN. DH=-45.8 kJ mol-1
--------------------------------------------------------------------------
Cs+        cal alc/w  25°C 100%  U   H    K1=4.32        1986BUd (95193) 301
In MeOH. DH=-47.4 kJ mol-1
--------------------------------------------------------------------------
Cs+        ISE non-aq 25°C 100%  U  I     K1=3.61        1981CRa (95194) 302
Medium: DMF. In EtOH: 4.77; in DMSO: 3.23; in N-methylpropionamide: 3.87
--------------------------------------------------------------------------
Cs+        ISE non-aq 25°C 100%  U        K1=4.9         1980CRa (95195) 303
Medium: Propylene carbonate
--------------------------------------------------------------------------
Cs+        gl  R4N.X  25°C 0.05M C  I     K1=<2.0        1975LSc (95196) 304
In 95% MeOH: K1=3.90; 100%: 5
**************************************************************************
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
--------------------------------------------------------------------------
Cs+        con alc/w  25°C 100%  U        K1=1.57        1991IOa (95382) 305
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
--------------------------------------------------------------------------
Cs+        ISE alc/w  25°C 100%  A        K1=4.15        1971FRa (95395) 306
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
--------------------------------------------------------------------------
Cs+        EMF alc/w  25°C 100%  U  I     K1=3.46        1994LLa (95413) 307
Medium: MeOH, 0.05M Et4NClO4.  Also data for acetonitrile: K=3.77, PC: K=3.6
```

DMF: K=2.31 and H2O: K<2. Method: by competition with Ag+.
****
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
Cs+	ISE	non-aq	25°C	100%	U		K1=3.36	1993RPa (95447)	308

Medium: dimethylformamide, 0.05 M Et4NClO4. By competition with Ag+.
****
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
Cs+	con	alc/w	25°C	100%	U			1975CJa (95484)	309

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
Cs+	con	non-aq	25°C	100%	U		K1=4.2	1993EVa (95488)	310

Medium: THF+CHCl3 (4:1 vol). Also data for other solvents

Cs+	con	alc/w	25°C	100%	U		K1=2.41	1975CJa (95489)	311

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
Cs+	gl	non-aq	25°C	100%	U		K1=1.8	1986STb (95538)	312

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
Cs+	EMF	non-aq	25°C	100%	U	I	K1=2.90	1996WPa (95570)	313

Medium: acetonitrile, 0.05 M NEt4ClO4. In propylene carbonate K1=4.04

Cs+	gl	alc/w	25°C	100%	C	I	K1=1.90	1993TCa (95571)	314

Medium: MeOH, 0.05 M Et4NClO4. In DMF, K1=1.23
****
C17H21O5P L (5732)
Methyldi(2-methoxyphenoxymethyl)phosphine oxide; Me.PO(CH2.O.C6H4.OMe)2

```
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=1.78        1989TKb (96390) 315
Medium: tetrahydrofuran/CHCl3 4:1 (volume)
*******************************************************************************
C17H23NO6              L                        (7047)
5'-(N-Acrylamide)-benzo-15-crown-5; CH2:CH.CO.NH.C14H19O5
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Cs+        sp  non-aq 25°C 100%  U        K1=7.77        1979KMb (96405) 316
Medium: CHCl3
*******************************************************************************
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
-------------------------------------------------------------------------------
Cs+        ISE none   25°C  0.0  C        K1=1.30        1980WSb (96513) 317
Method: monovalent ion electrode. Also data for the4'-polyvinylbenzene-
derivative: by spectrophotometry, K1=2.48
*******************************************************************************
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
-------------------------------------------------------------------------------
Cs+        sp  non-aq 22°C 100%  U        K1=5.20        1987CCc (96519) 318
In deuterochloroform
*******************************************************************************
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
-------------------------------------------------------------------------------
Cs+        cal alc/w  25°C 100%  U   H    K1=2.76        1987ZBa (96526) 319
Medium: MeOH. DH=-22.8 kJ mol-1; DS=-23.5.
*******************************************************************************
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
-------------------------------------------------------------------------------
Cs+        EMF non-aq 25°C 100%  C  I     K1=5.16        1993DLb (96741) 320
Medium: propylene carbonate, 0.05 M Et4NClO4. In acetonitrile, K1=4.57.
-------------------------------------------------------------------------------
Cs+        gl  R4N.X  25°C 0.05M C  I     K1=3.31        1992CGb (96742) 321
Medium: Et4NClO4. In MeOH: K1=4.8; in DMF K1=2.90
```

****
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
---
Cs+ gl alc/w 25°C 95% C K1=1.93 2004KVa (96757) 322
Medium: 95% MeOH/H2O, 0.01 M Et4NClO4.
****
C17H35NO4 L (1694)
N-n-Heptanyl-1,4,7,10-tetraoxa-13-azacyclopentadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ ISE alc/w 25°C 10% U K1=2.71 1986HAa (96767) 323
Medium: 10% MeOH/H2O
****
C18H22O5 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
---
Cs+ con non-aq 25°C 100% U K1=1.68 1989TKb (97564) 324
Medium: tetrahydrofuran/CHCl3 4:1 (volume)
****
C18H23NO8 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;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ sp non-aq 25°C 100% C K1=3.3 2001OYa (97574) 325
Medium: methanol. For the N-propyl derivative, K1=3.4.
****
C18H28N6 L CAS 299416-55-0 (2561)
6,6'-Bis(2-methylaminoethylaminomethyl)-2,2'-bipyridyl;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ nmr non-aq 25°C 100% U I K1=3.76 1977MLa (97793) 326
Medium: pyridine. In MeCN: K1=3.55; in acetone: 3.54
****
C18H28O6 L Benzo20-crown-6 (6354)
2,3-Benzo-1,5,8,11,14,18-Hexaoxacosa-2-ene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ sp non-aq 22°C 100% U K1=4.24 1987CCc (97834) 327
In deuterochloroform
****

C18H28O6 L CAS 85556-93-0 (642)
2,3-Benzo-8,15-dimethyl-1,4,7,10,13,16-hexaoxacycloocotadeca-2-ene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	con	alc/w	25°C	100%	U		K1=3.38	1983LSa (97840)	328

Medium: MeOH

****

C18H28O6 L AN(MOEOE)2O CAS 60232-73-7 (2247)
21-Methoxy-19-methyl-3,6,9,12,15-pentaoxabicyclo[15.3.1]heneicos-1(21),17,19-triene
;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	dis	non-aq	25°C	100%	U	H	K(Cs(picrate)+L)=5.06	1979KLa (97845)	329

Medium: CHCl3

****

C18H28O7 L Benzo21-crown-7 (6355)
2,3-Benzo-1,4,7,10,13,16,19-Heptaoxaheneicosa-2-ene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	sp	non-aq	22°C	100%	U		K1=7.21	1987CCc (97855)	330

In deuterochloroform

****

C18H32N2O8 L CAS 24951-52-8 (2560)
Cryptand-2,2,2-dilactam

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	nmr	non-aq	33°C	100%	U	I	K1=1.96	1977HPa (98132)	331

Medium: pyridine. In nitromethane: K1=1.67

****

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
Cs+	con	alc/w	25°C	100%	U		K1=1.56	1975CJa (98396)	332

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
Cs+	gl	alc/w	25°C	95%	M		K1=2.32	1990LNa (98405)	333

Medium: 95% MeOH, 0.05 M Bu4NBr. For the 12,16-dihydroxy- analogue: K1 < 2

****

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
Cs+	cal	KCl	25°C	0.10M	U	IH	K1=2.40	1997ZIa (98419)	334

DH(K1)=-24.6 kJ mol-1, DS=-36.6 J K-1 mol-1. In 95% v/v MeOH/H2O: K1=6.35; DH(K1)=-59.5, DS=-78.2

****

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
Cs+	cal	non-aq	25°C	100%	C	H	K1=2.13	1999WBa (98532)	335

Medium: N,N-dimethylformamide. DH(K1)=-11.2 kJ mol-1.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	gl	R4N.X	25°C	0.05M	C	H	K1=3.3	1996BCh (98533)	336

Medium: 0.05 M Et4NClO4. By calorimetry: K1=3.4, DH(K1)=-2.4 kJ mol-1.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	cal	alc/w	25°C	80%	C	H	K1=2.84	1995KZa (98534)	337

Medium: 80% v/v CH3OH/H2O. DH(K1)=-29.7 kJ mol-1, DS(K1)=-45.3 J K-1 mol-1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	cal	non-aq	25°C	100%	M	H	K1=3.96	1994BCd (98535)	338

Medium: acetone. DH(K1)=-40.0 kJ mol-1, TDS=-17.5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	con	oth/un	25°C	0.05M	M		K1=4.04	1992BUb (98536)	339

K1=3.95 (by calorimetry)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	nmr	non-aq	25°C	100%	C	I	K1=1.82	1992SLb (98537)	340

Medium: dimethylacetamide. In N-methylformamide, K1=2.35.
Method: 133Cs nmr.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	cal	non-aq	25°C	100%	U	H	K1=4.83	1986BUb (98538)	341

In CH3CN. DH=-44.2 kJ mol-1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	cal	alc/w	25°C	100%	U	H	K1=3.95	1986BUd (98539)	342

In MeOH. DH=-49.7 kJ mol-1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	nmr	non-aq	25°C	100%	U		K1=7.55	1986CHc (98540)	343

In CDCl3 saturated with D2O

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	cal	non-aq	25°C	100%	U	H		1986DGa (98541)	344

DH1 = -51.4 kJ mol-1. Medium: nitromethane

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	nmr	non-aq	32°C	100%	U	I	K1=3.75	1986RPc (98542)	345

Medium: acetone. Additional data for binary acetone-DMSO systems, 0-95% acetone.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	nmr	non-aq	32°C	100%	U	I	K1=1.19	1986RPc (98543)	346

Medium: dimethylsulfoxide. Additional data for binary solvent systems
DMSO-acetonitrile, DMSO-propylenecarbonate.

Cs+ nmr non-aq 32°C 100% U I K1=4.71 1986RPc (98544) 347
Medium: acetonitrile. Data also in other media
additional data for binary acetonitrile-dimethylsulfoxide systems

---

Cs+ nmr non-aq 32°C 100% U I K1=3.90 1986RPc (98545) 348
Medium: propylene carbonate. Data also in other media
additional data for binary solvent systems: PC-DMSO and PC-DMF

Cs+ cal non-aq 25°C 100% U H 1985DGa (98546) 349
Medium: propylene carbonate. DH1 = -41.3 kJ mol-1

Cs+ cal non-aq 25°C 100% U H 1985DGa (98547) 350
Medium: acetonitrile. DH1 = -43.5 kJ mol-1

Cs+ ISE non-aq 25°C 100% M K1=5.10 1985DGb (98548) 351
Medium: nitromethane

Cs+ cal non-aq 25°C 100% U H 1984DGa (98549) 352
Medium: N,N-dimethylformamide. DH1=-31.0 kJ mol-1; DS1=-63.2 J K-1 mol-1.

Cs+ cal non-aq 25°C 100% U H 1984DGa (98550) 353
Medium: DMSO. DH1=-35.6 kJ mol-1; DS1=-92.0 J K-1 mol-1

Cs+ ISE non-aq 25°C 100% U I K1=4.57 1981CRa (98551) 354
Medium: MeCN. In EtOH: 4.17; in DMF: 2.14; in N-methylpropionamide: 4.4

Cs+ ISE non-aq 25°C 100% U K1=4.1 1980CRa (98552) 355
Medium: Propylene carbonate

Cs+ con non-aq 25°C 100% U K1=4.54 1980KMb (98553) 356
Medium: MeCN

Cs+ EMF oth/un 25°C 0.05M C I K1=<1.4 1978YTa (98554) 357
Method: competition with Tl+, using Tl amalgam electrode.
Electrolyte not stated. In DMSO, 0.10 M: K1=1.4

Cs+ nmr non-aq 25°C 100% U I K1=1.45 1977MLa (98555) 358
Medium: DMSO. In pyridine: K1 > 5; in MeCN: K1=4.57

Cs+ nmr non-aq 25°C 100% U TIH 1977MPb (98556) 359
Keff=4.0
Medium: propylene carbonate. Keff (40 C)=3.6. Keff=1.8 in DMF, 46 C.
Keff=2.19 in DMF, 25 C. Keff=3.3 in 0.02 M acetone in PC, 52 C

Cs+ cal alc/w 25°C 95% C H 1976KLc (98557) 360
Medium: 0.057 M Me4NBr in 95% (v/v) MeOH/H2O, pH 10.4.
DH(K1)=-49.8 kJ mol-1, DS(K1)=-99 J K-1 mol-1.

Cs+ gl R4N.X 25°C 0.05M C I K1=<2.0 1975LSc (98558) 361
In 95% MeOH: K1=3.54; 100%: 4.4
****
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
---
Cs+ cal alc/w 25°C 100% U H K1=3.95 1993ILa (98805) 362
Medium: MeOH. DH=-36.5 kJ mol-1.
****
C18H38O9 L Glyme-9 CAS 25990-94-7 (7806)
2,5,8,11,14,17,20,23,26-Nonaoxaheptacosane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ dis non-aq 25°C 100% C K1=7.17 1998KSc (98873) 363
Medium: 1,2-dichloroethane.
****
C19H23O6P L (5731)
1,2:8,9-Dibenzo-5-methylphosphinyl-3,7,10,13,16-pentaoxacyclohexadeca-1,8-diene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ con non-aq 25°C 100% U K1=2.56 1989TKb (99344) 364
Medium: tetrahydrofuran/CHCl3 4:1 (volume)
****
C19H27NO7 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
---
Cs+ sp non-aq 25°C 100% U K1=6.42 1979KMb (99393) 365
Medium: CHCl3
****
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
---
Cs+ con alc/w 25°C 100% U K1=2.99 1983LSa (99435) 366
Medium: MeOH
****
C19H39NO5 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
---
Cs+ ISE alc/w 25°C 10% U K1=3.53 1986HAa (99477) 367

Medium: 10% MeOH/H2O

****

C19H39N3O5 L CAS 60598-00-7 (1537)

4-Methyl-1,4,10-triaza-7,13,16,21,24-pentaoxa-bicyclo[8,8,8]hexacosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	gl	R4N.X	25°C	0.10M	U		K1=2	1978LMa (99490)	368

****

C20H22O6 L (6834)

1,8-Bis(2-Formyphenoxy)-3,6-dioxaoctane; (CH2.O.CH2.CH2.O.C6H4.CHO)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	con	non-aq	25°C	100%	U		K1=1.3	1993EVa (99930)	369

Medium: THF+CHCl3 (4:1 vol)

****

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
Cs+	oth	oth/un	25°C	0.05M	C	I	K1=0.98	2002KTa (100094)	370

Method: capillary electrophoresis. Medium: 0.03-0.06 M CsCl.
In CH3CN, K1=3.037.

Cs+	dis	non-aq	24°C	100%	C			2002MRd (100095)	371
							K(Cs+A+L)=5.61		

Medium: CDCl3. HA is picric acid.

Cs+	con	non-aq	25°C	100%	C		K1=3.2	2000ICa (100096)	372

Medium: nitromethane.

Cs+	con	non-aq	25°C	100%	C	T H	K1=3.34	2000SSc (100097)	373

Medium: acetonitrile. Data for 15-45 C. DH(K1)=-15 kJ mol-1,
DS(K1)=14 J K-1 mol-1.

Cs+	dis	oth/un	25°C	0.06M	C			2000YYa (100098)	374
							K(CsL+A)=0.24		
							K(Cs+L(org)+A=CsLA(org))=4.25		

Method: extraction of metal picrate (0.06 M, pH 12) into dichloromethane/
ligand solution. HA: picric acid. Data for many additional solvents.

Cs+	oth	alc/w	35°C	3.0%	C		K1=0.83	1999MTd (100099)	375

Method: capillary zone electrophoresis. Medium: 3% v/v EtOH/H20, 0.005 M
phosphate buffer, pH 7.0

Cs+	dis	non-aq	25°C	100%	U		K1=6.55 B2= 9.95	1998KSb (100100)	376

Medium: 1,2-dichloroethane

```
Cs+        oth oth/un 25°C 0.04M C        K1=0.94        1998TIa (100101) 377
Method: capillary electrophoresis.
Medium: 0.005 M phosphate buffer, pH 7.1, 0.04 M MCl.
--------------------------------------------------------------------------------
Cs+        nmr non-aq  RT  100%  U        K1=1.63        1996GMc (100102) 378
Method: 133Cs nmr.  Medium: N,N-dimethylformamide
--------------------------------------------------------------------------------
Cs+        dis oth/un 25°C    0  U        K1=3.57        1994OUa (100103) 379
--------------------------------------------------------------------------------
Cs+        dis non-aq 23°C 100%  C        K1=4.5         1992HGb (100104) 380
                                         K(Cs+A+L(org)=CsAL(org))=5.19
                                         K(Cs+A+2L(org)=CsAL2(org))=7.3
Extraction of metal chloride (A) from aqueous solution into nitrobenzene/
0.01M Bu4NB(Ph)4. Peak potential voltammetry and distribution of 137Cs.
--------------------------------------------------------------------------------
Cs+        nmr non-aq 25°C 100%  U        K1=1.97        1991SKa (100105) 381
Medium: MeCN
--------------------------------------------------------------------------------
Cs+        cal non-aq 25°C 100%  C   H                   1988BUb (100106) 382
Medium: acetonitrile. DH(K1)=-8.4 kJ mol-1, DS(K1)=40 J K-1 mol-1.
--------------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=3.3         1986STb (100107) 383
Medium: THF:CHCl3 4:1 v/v. Metal as 2,4-dinitrophenolate
--------------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=3.49        1985YKa (100108) 384
Medium: EtOH+CHCl3 1:1;  M is used in nitrophenolate form
--------------------------------------------------------------------------------
Cs+        con mixed  25°C    ?  U        K1=4.84        1984MPa (100109) 385
Medium: 60%(vol) isopropanol+ 20% H2O + 20% CHCl3
--------------------------------------------------------------------------------
Cs+        vlt non-aq 25°C 100%  U  I     K1=3.50        1978HKc (100110) 386
Medium: CH3CN, 0.05M Bu4NClO4
--------------------------------------------------------------------------------
Cs+        nmr non-aq 25°C 100%  U  I     K1=3.84   B2=6.20   1977MPa (100111) 387
Medium: pyridine. K1=1.48 in DMF; 1.34 in DMSO; 1.54 in MeCN;3.0 in acetone;
3.0 in PC
--------------------------------------------------------------------------------
Cs+        nmr non-aq 29°C 100%  U        K1=2.35        1977SZa (100112) 388
Medium: DMF
--------------------------------------------------------------------------------
Cs+        sol none   25°C  0.0  U  I     K1=0.83        1975SNa (100113) 389
--------------------------------------------------------------------------------
Cs+        ISE alc/w  25°C 100%  A        K1=3.55   B2=6.47   1971FRa (100114) 390
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
--------------------------------------------------------------------------------
```

Cs+ dis non-aq 23°C 100% C K1=4.0 1992HGb (100260) 391
K(Cs+A+L(org)=CsAL(org))=5.43
K(Cs+A+2L(org)=CsAL2(org))=7.8
Extraction of metal chloride (A) from aqueous solution into nitrobenzene/
0.01M Bu4NB(Ph)4. Peak potential voltammetry and distribution of 137Cs.
****
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
---
Cs+ dis non-aq 23°C 100% C K1=2.7 1992HGb (100266) 392
Extraction of metal chloride (A) from aqueous solution into nitrobenzene/
0.01M Bu4NB(Ph)4. Peak potential voltammetry and distribution of 137Cs.
****
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
---
Cs+ dis non-aq 25°C 100% U H 1979KLa (100345) 393
K(Cs(picrate)+L)=6.10
Medium: CHCl3
****
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;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ EMF non-aq 25°C 100% C H K1=4.70 1999BHa (100439) 394
Medium: MeOH, 0.05 M Et4NClO4. By calorimetry DH(K1)=-43.7 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;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ EMF non-aq 25°C 100% C H K1=4.76 1999BHa (100456) 395
Medium: MeOH, 0.05 M Et4NClO4. By calorimetry DH(K1)=-44.2 kJ mol-1.
Method: by competition with Ag+, using Ag/Ag+ electrode.
****
C20H32O7 L AN(MOEOEO)2E (2248)
24-Methoxy-22-methyl-3,6,9,12,15,18-hexaoxabicyclo[18.3.1]-tetracosa-1(24),20,22-tr
iene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ dis non-aq 25°C 100% U H 1979KLa (100490) 396

K(Cs(picrate)+L)=5.81
Medium: CHCl3
****
C20H32O8 L Benzo24-crown-8 (6356)
2,3-Benzo-1,4,7,10,13,16,19,22-Octaoxatetracosa-2-ene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ sp non-aq 22°C 100% U K1=6.24 1987CCc (100495) 397
In deuterochloroform
****
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
---
Cs+ ISE alc/w 25°C 10% U K1=3.15 1986HAa (100500) 398
Medium: 10% MeOH/H2O
****
C20H34O8 L (2504)
2,5,8,11,14,17,20,23-Octaoxa-12,13-benzotetracosa-12-ene; C6H4(O.(CH2.CH2.O)3.CH3)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ con alc/w 25°C 100% U K1=2.29 1975CJa (100524) 399
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
---
Cs+ dis non-aq 25°C 100% U K1=8.58 B2=10.26 2000KSa (100633) 400
Medium: 1,2-dichloroethane

Cs+ con non-aq 25°C 100% C T H K1=>5.5 2000SSc (100634) 401
Medium: acetonitrile. Data for 15-45 C. DH(K1)=-19 kJ mol-1,
DS(K1)=35 J K-1 mol-1.

Cs+ nmr non-aq RT 100% U K1=2.91 1996GMc (100635) 402
Method: 133Cs nmr. Medium: N,N-dimethylformamide

Cs+ dis non-aq 25°C 100% U 1995BSa (100636) 403
K(Cs(pic)+L=Cs(pic),L)=6.52
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=6.65) and anti-L(6.31)

Cs+ nmr non-aq 25°C 100% U K1=3.59 1991SKa (100637) 404
In acetonitrile.

Cs+ cal non-aq 25°C 100% C H K1=5.40 1988BUb (100638) 405
Medium: acetonitrile. DH(K1)=-23.7 kJ mol-1, DS(K1)=23 J K-1 mol-1.

Cs+ con none 25°C 0.0 C T H K1=4.06 1988TMc (100639) 406
Data for 15-35 C. DH(K1)=-50.1 kJ mol-1, DS(K1)=-89.7 J K-1 mol-1.
Anion is tetraphenyl borate.

Cs+ dis non-aq 25°C 100% U H 1979KLa (100640) 407
K(Cs(picrate)+L)=6.25
Medium: CHCl3

Cs+ nmr non-aq 25°C 100% U I 1977MPa (100641) 408
K1>5.0
Medium: pyridine. K1=2.04 in DMSO; >4.0 in MeCN; 4.0 in PC; 3.45 in DMF;
>4 in acetone

Cs+ ISE oth/un 25°C dil A K1=0.9 1971FRa (100642) 409
Isomer B. In MeOH: K1=3.49. For isomer A: K1=1.25; in MeOH: K1=4.61, B2=5.20

Cs+ cal oth/un 40°C 0.0 U T K1=0.96 1971INa (100643) 410
K1(10 C)=1.00, K1(25 C)=0.96

Cs+ cal oth/un ? 0.01M U K1=1.07 1969IRa (100644) 411
Data for isomer A
****
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
---
Cs+ cal alc/w 25°C 80% C H K1=2.96 1995KZa (100738) 412
Medium: 80% v/v CH3OH/H2O. DH(K1)=-48.9 kJ mol-1, DS(K1)=-107 J K-1 mol-1
****
C20H38O8 L CAS 118787-30-7 (5290)
Cyclohexyl-24-crown-8;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ ISE oth/un 25°C dil A K1=1.9 1971FRa (100757) 413
****
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
---
Cs+ gl non-aq 25°C 100% C I K1=3.13 1992LSc (100774) 414
Medium: MeCN, 0.05 M Et4NClO4. In DMF K1=2.0; 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
---
Cs+ gl alc/w 25°C 95% M K1=3.71 1990LNa (100784) 415
Medium: 95% MeOH, 0.05 M Bu4NBr. For the 12,19-dihydroxy- analogue: K1 < 2
****
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
---
Cs+ gl alc/w 25°C 95% M K1=2.86 1990LNa (100793) 416
Medium: 95% MeOH, 0.05 M Bu4NBr. For the 9,19-dihydroxy- analogue: K1=2.74
****
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
---
Cs+ cal alc/w 25°C 80% C H K1=2.04 1995KZa (100800) 417
Medium: 80% v/v CH3OH/H2O. DH(K1)=-51.8 kJ mol-1, DS(K1)=-136 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
---
Cs+ ISE alc/w 25°C 95% C K1=7.0 1977LSc (100809) 418
Medium: 95% (w/w) MeOH/H2O, 0.1 M Et4NBr.

Cs+ cal R4N.X 25°C 0.06M C H 1976KLc (100810) 419
Medium: 0.057 M Me4NBr. Method: flow microcalorimetry.
DH(K1)=-22.6 kJ mol-1, DS(K1)=-41 J K-1 mol-1.

Cs+ gl R4N.X 25°C 0.05M C I K1=2.0 1975LSc (100811) 420
In 95% MeOH: K1=7.0
****
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
---
Cs+ cal alc/w 25°C 100% U H K1=4.15 1993ILa (100850) 421
Medium: MeOH. DH=-46.9 kJ mol-1.
****
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
---

Cs+ gl R4N.X 25°C 0.10M U K1=<2 1978LMa (100886) 422
In CH3OH, K1<2
****
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
---
Cs+ dis non-aq 25°C 100% C K1=2.14 1999KKb (100900) 423
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
---
Cs+ EMF non-aq 25°C 100% C I K1=3.10 1997DMd (100926) 424
Method: Ag electrode; competitive titration. Medium: acetonitrile, 0.05 M Et4NClO4. Also data for PC (K1=4.1), MeOH (3.2), DMF (3.41), 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
---
Cs+ gl non-aq 25°C 100% U I K1=3.55 1996SDa (100938) 425
Medium: MeCN, 0.05 M Et4NClO4. In MeOH: K1=2.5, DMF: 2.28

Cs+ gl R4N.X 25°C 0.10M C K1=<2.0 1993SFb (100939) 426
Medium: 0.1 M Et4NClO4.
****
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
---
Cs+ con alc/w 25°C 100% U K1=<-0.3 1980OPa (101257) 427
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
---
Cs+ gl alc/w 25°C 80% M H K1=2.70 1985AEb (101264) 428
Medium: 80% w/w MeOH/H2O, pH=11. By calorimetry: DH(K1)=-4.69 kJ mol-1, DS(K1)=36.2 J K-1 mol-1.
****
C21H31O7P3 L CAS 82154-48-1 (2916)

Methyldi((2-dimethylphosphinylmethoxy)phenoxymethyl)phosphineoxide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ con non-aq 25°C 100% U K1=2.79 1982YSa (101418) 429
Medium: tetrahydrofuran+CHCl3 4:1(vol); M is 2,4-dinitrophenolate
L=CH3P(O)[CH2OC6H4OCH2P(O)(CH3)2]2
****
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;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ gl alc/w 25°C 95% C K1=3.60 2004KVa (101462) 430
Medium: 95% MeOH/H2O, 0.01 M Et4NClO4.
****
C22H25N5O14 L CAS 74305-50-3 (2797)
4'-Picrylamino-(2''-nitrobenzo)-18-crown-6

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ sp oth/un 25°C 0.10M U K1=1.27 1980NTa (101918) 431
At pH 12.35 in Li4(EDTA)
****
C22H26N4O12 L CAS 74044-87-4 (2796)
4'-Picrylaminobenzo-18-crown-6

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ sp oth/un 25°C 0.10M U K1=1.36 1980NTa (101990) 432
K(Cs+HL)=1.08
At pH 11.5 in Li4(EDTA)
****
C22H26O5 L CAS 160978-39-2 (8944)
o,o'-(Tetraethyleneglycoldiyl)-(Z)-stilbene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ con non-aq 25°C 100% C K1=2.70 B2= 4.80 2000ICa (101996) 433
Medium: nitromethane.
****
C22H28O7 L Dibenzo-21-Cr-7 CAS 14098-41-0 (2876)
2,3:11,12-Dibenzo-1,4,7,10,13,16,19-heptaoxacycloheneicosane-2,11-diene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ oth alc/w 35°C 3.0% C K1=1.45 1999MTd (102039) 434
Method: capillary zone electrophoresis. Medium: 3% v/v EtOH/H20, 0.005 M
phosphate buffer, pH 7.0

```
Cs+        dis oth/un 25°C    0  U        K1=4.27        1994OUa (102040) 435
--------------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=5.0         1993EVa (102041) 436
Medium: THF+CHCl3 (4:1 vol)
--------------------------------------------------------------------------------
Cs+        cal non-aq 25°C 100%  C   H    K1=4.25        1986ICa (102042) 437
Medium: MeOH. DH(K1)=-44.10 kJ mol-1, DS(K1)=-66.4 J K-1 mol-1.
--------------------------------------------------------------------------------
Cs+        ISE alc/w  25°C 100%  A        K1=4.20   B2=6.10   1971FRa (102043) 438
Medium: MeOH
********************************************************************************
C22H28O7                L                      CAS 133560-78-8  (8962)
2,3:17,18-Dibenzo-1,4,7,10,13,16,19-heptaoxacycloheneicosa-2,17-diene,
Dibenzo[21]crown-7;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Cs+        sp  non-aq 25°C 100%  C        K1=<2          2002YEb (102063) 439
Method: steady state fluorescence spectroscopy. Medium: acetonitrile.
********************************************************************************
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
--------------------------------------------------------------------------------
Cs+        dis non-aq 24°C 100%  C                         2002MRd (102129) 440
                                          K(Cs+A+L)=4.28
Medium: CDCl3. HA is picric acid.
********************************************************************************
C22H32O7P2              L                        (2078)
1,5-Bis(2-(dimethylphosphinylmethoxy)phenoxy)-3-oxapentane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=3.11        1989KSa (102205) 441
Medium: tetrahydrofuran/CHCl3 4:1 (vol)
********************************************************************************
C22H36N2O6              L    Bz-Cryptand 222  CAS 31250-18-7  (2269)
5,6-Benzo-4,7,13,16,21,24-hexaoxa-1,10-diazabicylo[8:8:8]hexacosa-5-ene;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Cs+        gl  R4N.X  25°C 0.05M U   H    K1=2.4         1998DBa (102268) 442
Medium: 0.05 M Et4NClO4. By calorimetry: DH(K1)=-1.8 kJ mol-1,
--------------------------------------------------------------------------------
Cs+        nmr non-aq 25°C 100%  C  I     K1=1.47        1992SLb (102269) 443
Medium: dimethylacetamide. In N-methylformamide, K1=1.75.
Method: 133Cs nmr.
--------------------------------------------------------------------------------
Cs+        gl  oth/un 25°C 0.02M U   H    K1=2.99        1980CKa (102270) 444
```

DH=-31.8 kJ mol-1. Alternative method, calorimetry

Cs+ nmr alc/w 25°C 100% U H K1=2.9 1980KDa (102271) 445
Medium: MeOH. DH=-4.1 kJ mol-1.

****

C22H36O9 L Benzo-27-Crown9 CAS 63144-76-3 (2842)
2,3-Benzo-1,4,7,10,13,16,19,22,25-nonanoxacycloheptacosa-2-ene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	sp	non-aq	22°C	100%	U		K1=5.73	1987CCc (102298)	446

In deuterochloroform

****

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
Cs+	ISE	alc/w	25°C	10%	U		K1=3.23	1986HAa (102304)	447

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
Cs+	nmr	non-aq	24°C	100%	U	M	K(Cs(picrate)+L)=6.9	1981BEb (102369)	448

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
Cs+	nmr	non-aq	25°C	100%	U		K1=>4 K2=1.98	1991SKa (102377)	449

In acetonitrile.

Cs+	ISE	alc/w	25°C	100%	A		K1=1.9	1971FRa (102378)	450

Medium: MeOH

****

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
Cs+	gl	alc/w	25°C	95%	M		K1=4.05	1990LNa (102414)	451

Medium: 95% MeOH, 0.05 M Bu4NBr. For the 12,22-dihydroxy- analogue: K1 < 2

****

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
---
Cs+ cal alc/w 25°C 95% U H K1=>5.5 1997ZIa (102420) 452
Medium: 95% v/v MeOH/H2O, 0.1 M. DH(K1)=-46.4 kJ mol-1, DS>-56.4 J K-1 mol-1
****
C22H44N2O8 L Cryptand 3,3,2 CAS 132162-57-3 (1762)
Cryptand 3,3,2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ gl alc/w 25°C 100% C I K1=6 1975LSc (102427) 453
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-dit
hione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ gl alc/w 25°C 95% C K1=2.67 2004KVa (102437) 454
Medium: 95% MeOH/H2O, 0.01 M Et4NClO4.
****
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
---
Cs+ gl alc/w 25°C 100% U K1=3.3 1978LMa (102485) 455
Medium: MeOH
****
C24H20B- HL CAS 4358-26-3 (2489)
Tetraphenylborate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ sol alc/w 25°C 50% C I 1983BWb (102890) 456
Kso(CsB(C6H5)4)=-7.48
Method: spectrophotometry. Data for 20-100% MeOH/H2O

Cs+ nmr non-aq 25°C 100% U K1=4.11 1982KPb (102891) 457
Medium: methylamine

Cs+ con non-aq 25°C 100% U K1=1.28 1978CAa (102892) 458
Medium: Acetonitrile

Cs+ con non-aq 25°C 100% U K1=1.3 1975YKa (102893) 459
Medium: MeCN

****
C24H24N2O4 L (5741)
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
Cs+	con	non-aq	25°C	100%	U		K1=4.2	1989BEa (102936)	460

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
Cs+	dis	non-aq	23°C	100%	C		K1=3.7	1992HGb (102951)	461
							K(Cs+A+L(org)=CsAL(org))=5.28		
							K(Cs+A+2L(org)=CsAL2(org))=8.2		

Extraction of metal chloride (A) from aqueous solution into nitrobenzene/
0.01M Bu4NB(Ph)4. Peak potential voltammetry and distribution of 137Cs.
****
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
Cs+	dis	non-aq	23°C	100%	C		K1=3.6	1992HGb (102957)	462
							K(Cs+A+L(org)=CsAL(org))=4.71		
							K(Cs+A+2L(org)=CsAL2(org))=6.4		

Extraction of metal chloride (A) from aqueous solution into nitrobenzene/
0.01M Bu4NB(Ph)4. Peak potential voltammetry and distribution of 137Cs.
****
C24H32O6 L ANAN(MOEO)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
Cs+	dis	non-aq	25°C	100%	U	H		1979KLa (103069)	463
							K(Cs(picrate)+L)=5.71		

Medium: CHCl3
****
C24H32O6 L AN(MOEOM)2AN (2244)
23,24-Dimethoxy-10,21-dimethyl-3,6,14,17-tetraoxatricyclo-tetracosa-1(23),8(24),9,1
1,19,21hexaene

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	dis	non-aq	25°C	100%	U	H		1979KLa (103075)	464
							K(Cs(picrate)+L)=3.28		

Medium: CHCl3

****
C24H32O6 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
---
Cs+ dis non-aq 25°C 100% U H 1979KLa (103081) 465
K(Cs(picrate)+L)=4.71
Medium: CHCl3
****
C24H32O8 L DiBz-24-Crown-8 CAS 14174-09-5 (580)
2,3:14,15-Dibenzo-1,4,7,10,13,16,19,22-octaoxacyclotetracosa-2,14-diene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ oth oth/un 25°C 0.05M C K1=0.95 2002KTa (103113) 466
Method: capillary electrophoresis. Medium: 0.03-0.06 M CsCl.
In CH3CN, K1=3.900.

Cs+ sp non-aq 25°C 100% C K1=3.10 2002YEb (103114) 467
Method: steady state fluorescence spectroscopy. Medium: acetonitrile.

Cs+ con non-aq 25°C 100% C T H K1=4.08 2000SSc (103115) 468
Medium: acetonitrile. Data for 15-45 C. DH(K1)=-27 kJ mol-1,
DS(K1)=-13 J K-1 mol-1.

Cs+ oth alc/w 35°C 3.0% C K1=1.15 1999MTd (103116) 469
Method: capillary zone electrophoresis. Medium: 3% v/v EtOH/H20, 0.005 M
phosphate buffer, pH 7.0.

Cs+ nmr non-aq RT 100% U K1=2.21 1996GMc (103117) 470
Method: 133Cs nmr. Medium: N,N-dimethylformamide

Cs+ dis oth/un 25°C 0 U K1=3.76 1994OUa (103118) 471

Cs+ con non-aq 25°C 100% U K1=5.1 1993EVa (103119) 472
Medium: THF+CHCl3 (4:1 vol)

Cs+ nmr non-aq 25°C 100% U K1=3.68 1991SKa (103120) 473
In acetonitrile.

Cs+ vlt non-aq 25°C 100% U K1=8.5 1990SPa (103121) 474
Medium: 1,2-dichloroethane

Cs+ cal non-aq 25°C 100% C H K1=3.85 1986ICa (103122) 475
Medium: MeOH. DH(K1)=-37.9 kJ mol-1, DS(K1)=-53.4 J K-1 mol-1.

Cs+ nmr non-aq 30°C 100% U TIH K1=3.94 1986RPb (103123) 476
In CH3CN. At 75 C, K1=3.19; 50 C, K1=3.57; 5 C. K1=4.50.

Cs+ nmr non-aq 20°C 100% U TIH K1=2.32 1986RPb (103124) 477
In DMF. At 50 C, K1=1.89; 40 C, K1=2.02; 30 C, K1=2.15; 0 C, K1=2.44
Also in 61.5% DMF/38.5% CH3CN and 22.7%/77.3% mixtures.

Cs+ dis non-aq 35°C 100% U I K1=3.4 1980TYb (103125) 478
Medium: propylene carbonate

Cs+ cal alc/w 25°C 70% U H K1=2.48 1976ITa (103126) 479
Medium: 70% w/w MeOH/H2O. DH(K1)=-37.4 kJ mol-1

Cs+ ISE alc/w 25°C 100% A K1=3.78 1971FRa (103127) 480
Medium: MeOH
****
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
---
Cs+ dis non-aq 24°C 100% C 2002MRd (103230) 481
K(Cs+A+L)=4.65
Medium: CDCl3. HA is picric acid.
****
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
---
Cs+ con non-aq 25°C 100% U K1=3.1 1989EVa (103294) 482
Medium: tetrahydrofuran/CHCl3 4:1 (volume)
****
C24H42N2O6 L CAS 129242-36-0 (8616)
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
---
Cs+ cal alc/w 25°C 80% C K1=<2 1995KZa (103353) 483
Medium: 80% v/v CH3OH/H2O.
****
C24H42O10 L (2505)
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
---
Cs+ sp non-aq 22°C 100% U K1=5.99 1987CCc (103393) 484
In deuterochloroform

Cs+ con alc/w 25°C 100% U K1=2.66 1975CJa (103394) 485
Medium: MeOH
****

C24H44O5 L (2341)
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
---
Cs+ nmr non-aq 24°C 100% U M 1981BEb (103408) 486
K(Cs(picrate)+L)=5.2
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
---
Cs+ nmr non-aq RT 100% U K1=2.89 B2= 4.30 1996GMc (103428) 487
Method: 133Cs nmr. Medium: N,N-dimethylformamide
****
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
---
Cs+ ISE alc/w 25°C 90% U K1=3.66 B2=6.80 1988HKa (103457) 488
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
---
Cs+ gl alc/w 25°C 100% C I K1=5.9 1975LSc (103463) 489
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
---
Cs+ gl R4N.X 25°C 0.10M U K1=3.4 1981GLa (103481) 490

Cs+ kin non-aq 25°C 100% C K1=<6.0 1977LSc (103482) 491
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]hexatricontane-5,16-d
ithione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ gl alc/w 25°C 95% C K1=2.54 2004KVa (103504) 492

Medium: 95% MeOH/H2O, 0.01 M Et4NClO4.
****
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
---
Cs+ cal alc/w 25°C 100% U H K1=3.98 1993ILa (103519) 493
Medium: MeOH. DH=-45.6 kJ mol-1.
****
C24H72O12Si12 L CAS 18919-94-3 (1287)
Tetracosamethyl-cyclododecasiloxane; ((CH3)2SiO)12

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ con alc/w 25°C 100% U K1=0.12 1980OPa (103590) 494
Medium: MeOH, 0.1 M Me4NBr
****
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
---
Cs+ con non-aq 25°C 100% U K1=2.9 1984YKa (103627) 495
Medium: tetrahydrofuran + CHCl3 4:1, Cs as 2,4-dinitrophenolate
****
C25H37N2O7P L CAS 202407-79-2 (8035)
26,27-Dimethoxy-3,7,24-triMe-11,14,17,20-tetraoxa-2,4-diaza-phosphatricycloheptacos
ahexaeneoxide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ dis non-aq 20°C 100% C 1998DDc (103756) 496
K(CsP+L)=4.57
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
---
Cs+ con non-aq 25°C 100% C T H K1=4.63 1999RGa (103774) 497
Medium: acetonitrile. Data for 5-35 C. DH(K1)=-42.3 kJ mol-1, DS(K1)=
-53 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
---

Cs+ ISE alc/w 25°C 90% U K1=3.07 B2=6.85 1988HKa (103828) 498
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
---
Cs+ gl R4N.X 25°C 0.10M U K1=2.8 1981GLa (103834) 499
****
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
---
Cs+ gl alc/w 25°C 95% C K1=4.49 2004KVa (103843) 500
Medium: 95% MeOH/H2O, 0.01 M Et4NClO4.
****
C26H24O2P2 L (6648)
Bis(diphenylphosphinyl)ethane; (C6H5)2PO.CH2CH2.PO(C6H5)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ con non-aq 25°C 100% U K1=1.4 1990EAb (103910) 501
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
---
Cs+ con non-aq 25°C C K1=2.1 1999TEa (103915) 502
In: tetrahydrofurane/CHCl3 4:1 v/v

Cs+ oth non-aq 25°C 100% U K1=2.1 1995TEa (103916) 503
Medium: tetrahydrofurane:CHCl3 4:1 (v/v).
Metal ion is used as 2,4-dinitrophenolate.
****
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
---
Cs+ cal non-aq 25°C 100% U IH 1988DSa (104129) 504
Medium: MeCN. DH(K1)=-42.8 kJ mol-1. Also data in propylene carbonate,
and dimethylsulphoxide

Cs+ ISE non-aq 25°C 100% U M K1=3.46 1987DSa (104130) 505

Medium: acetonitrile
****
C26H36O9 L CAS 518019-36-8 (8969)
2,3:11,12-Dibenzo-1,4,7,10,13,16,19,22,25-nonaoxacycloseptacosa-2,11-diene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ sp non-aq 25°C 100% C K1=3.07 2002YEb (104162) 506
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-nonaoxacycloseptacosa-2,15-diene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ cal non-aq 25°C 100% C H K1=3.67 1986ICa (104167) 507
Medium: MeOH. DH(K1)=-41.97 kJ mol-1, DS(K1)=-71 J K-1 mol-1.

Cs+ nmr non-aq 20°C 100% U TIH K1=2.33 1986RPb (104168) 508
In DMF. At 40 C, K1=2.05; 30 C, K1=2.20; 10 C, K1=2.58; 0 C, K1=2.78;
-10 C, K1=2.89

Cs+ nmr non-aq 20°C 100% U TIH K1=2.50 1986RPb (104169) 509
In 86.04 % DMF, 13.96 % CH3CN. At 40 C, K1=2.17; 30 C, K1=2.28; 10C, K1=2.64
, 0 C, K1=2.79; -10 C, K1=2.96. Data also in 61.5% DMF and 22.7% DMF

Cs+ nmr non-aq 30°C 100% U TIH K1=3.89 1986RPb (104170) 510
In CH3CN. At 77 C, K1=3.09; 45 C, K1=3.63; 9 C, K1=4.24, and other temps.

Cs+ cal alc/w 25°C 70% U H K1=1.42 1976ITa (104171) 511
Medium: 70% w/w MeOH/H2O. DH(K1)=-25.7 kJ mol-1
****
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
---
Cs+ dis non-aq 24°C 100% C 2002MRd (104211) 512
K(Cs+A+L)=5.34
Medium: CDCl3. HA is picric acid.
****
C26H38O8 L (2507)
2,5,8,11,16,19,22,25-Octaoxa-12,13:14,15-dibenzohexacosa-12,14-diene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ con alc/w 25°C 100% U K1=1.43 1975CJa (104218) 513
Medium: MeOH
****

C26H40O11P2 L (5727)
1,7-Bis(2-(diethoxyphosphinylmethoxy)phenyl)-1,4,7-trioxaheptane;2(EtO)2PO.CH2OC6H4 C2H4OC2H4)2O

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	con	non-aq	25°C	100%	U		K1=3.6	1989EVa (104242)	514

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
Cs+	dis	none	25°C	dil	C		K1=8.10	1987BBf (104278)	515
							K(Cs+A+L(org)=CsAL(org))=5.83		

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
Cs+	cal	alc/w	25°C	100%	U	H	K1=2.55	1987BUb (104294)	516

In MeOH. DH=-3.3 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
Cs+	nmr	non-aq	24°C	100%	U	M		1981BEb (104308)	517
							K(Cs(picrate)+L)=5.9		

Medium: CDCl3

****

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
Cs+	gl	R4N.X	25°C	0.10M	U		K1=<2	1981GLa (104327)	518

****

C26H52N6O7S2 L CAS 503465-16-5 (9245)
4,12,20,26,29,34,37-Heptaoxa-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
Cs+	gl	alc/w	25°C	95%	C		K1=3.51	2004KVa (104338)	519

Medium: 95% MeOH/H2O, 0.01 M Et4NClO4.

****
C26H52N6O7S2 L CAS 503465-12-1 (9243)
9,12,15,26,29,34,37-Heptaoxa-1,4,6,18,20,23-hexaazabicyclo[21.8.8]nonatricontane-5,19-dithione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ gl alc/w 25°C 95% C K1=1.76 2004KVa (104348) 520
Medium: 95% MeOH/H2O, 0.01 M Et4NClO4.
****
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
---
Cs+ con non-aq 25°C 100% U K1=1.3 1990EAb (104400) 521
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
---
Cs+ oth non-aq 25°C 100% U K1=2.2 1995TEa (104405) 522
Medium: tetrahydrofurane:CHCl3 4:1 (v/v).
Metal ion is used as 2,4-dinitrophenolate.
****
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
---
Cs+ con non-aq 25°C 100% U K1=3.9 1989BEa (104674) 523
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
---
Cs+ dis non-aq 23°C 100% C K1=3.0 1992HGb (104680) 524
K(Cs+A+L(org)=CsAL(org))=4.12
K(Cs+A+2L(org)=CsAL2(org))=5.8
Extraction of metal chloride (A) from aqueous solution into nitrobenzene/ 0.01M Bu4NB(Ph)4. Peak potential voltammetry and distribution of 137Cs.
****

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-tetrae
ne;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ dis non-aq 23°C 100% C K1=2.5 1992HGb (104685) 525
Extraction of metal chloride (A) from aqueous solution into nitrobenzene/
0.01M Bu4NB(Ph)4. Peak potential voltammetry and distribution of 137Cs.
****
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
---
Cs+ con non-aq 25°C 100% U K1=3.7 1993EVa (104708) 526
Medium: THF+CHCl3 (4:1 vol)

Cs+ con non-aq 25°C 100% U K1=1.9 1992BEa (104709) 527
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
---
Cs+ con non-aq 25°C C K1=2.7 1999TEa (104720) 528
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
---
Cs+ con non-aq 25°C 100% U K1=2.4 1984YKa (104725) 529
Medium: tetrahydrofuran + CHCl3 4:1, Cs as 2,4-dinitrophenolate
****
C28H32N2O6 L (5743)
1,16-Di(8-quinolyl)-1,4,7,10,13,16-hexaoxahexadecane; C9H6N.O.(C2H4O)5.C9H6N

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ con non-aq 25°C 100% U K1=4.9 1989BEa (104748) 530
Medium: tetrahydrofuran/CHCl3 4:1 (volume)
****
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
---

Cs+ con alc/w 25°C 100% U I M 1979BDa (104836) 531
K(CsCl+L)=3.54
Medium: MeOH. In DMSO: K(CsClO4+L)=3.31. In MeCN: K(CsBPh4+L)=3.37
****
C28H40O8 L AN(MOEOEOM)2AN (2243)
29,30-Dimethoxy-13,27-dimethyl-3,6,9,17,20,23-hexaoxatricyclo-triconta-1,11,13,15,25,27-hexaene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ dis non-aq 25°C 100% U H 1979KLa (104855) 532
K(Cs(picrate)+L)=3.79
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-decaoxacyclotriaconta-2,17-diene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ con non-aq 25°C 100% C T H K1=4.20 2000SSc (104875) 533
Medium: acetonitrile. Data for 15-45 C. DH(K1)=-38 kJ mol-1,
DS(K1)=-49 J K-1 mol-1.

Cs+ nmr non-aq RT 100% U K1=1.79 1996GMc (104876) 534
Method: 133Cs nmr. Medium: N,N-dimethylformamide

Cs+ dis oth/un 25°C 0 U K1=4.11 1994OUa (104877) 535

Cs+ con non-aq 25°C 100% U I K1=4.92 1991ASb (104878) 536
Medium: 1,2-dichlorethane. In nitromethane: K1=4.56; in MeCN: K=3.81;
in acetone: K=3.70

Cs+ vlt non-aq 25°C 100% U K1=9.4 1990SPa (104879) 537
Medium: 1,2-dichloroethane

Cs+ nmr alc/w 30°C 100% U TIH K1=4.18 1979SPc (104880) 538
Medium: MeOH, DH(K1)=-53.2 kJ mol-1. In py: K=4.41, DH=-33.2. In CH3CN, K=
3.39, DH=-21.5. In CH3NO2: K=4.30, DH=-33.3. In acetone: K=4.04, DH=-56.4

Cs+ nmr non-aq 20°C 100% U K1=4.23 1976LCa (104881) 539
Medium: acetone
****
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
---
Cs+ con non-aq 25°C 100% U K1=4.2 1989EVa (104944) 540
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-azacyclopentadec
ane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ ISE alc/w 25°C 10% U K1=3.23 1986HAa (104967) 541
Medium: 10% MeOH/H2O
****
C28H52O5 L (2339)
16,16,18,18,23,23,25,25-Octamethyl-2,5,8,11,14-pentaoxatricyclo(22.4.0.0(15,20))pen
tacosane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ nmr non-aq 24°C 100% U M 1981BEb (105008) 542
K(Cs(picrate)+L)=3.5
Medium: CDCl3
****
C28H52O6 L (5352)
Di(t-butylcyclohexyl)-18-crown-6

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ oth oth/un 25°C dil U K1=0.9 1970MSa (105014) 543
****
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
---
Cs+ ISE alc/w 25°C 90% U K1=3.66 B2=6.80 1988HKa (105032) 544
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
---
Cs+ gl alc/w 25°C 95% C K1=3.48 2004KVa (105039) 545
Medium: 95% MeOH/H2O, 0.01 M Et4NClO4.
****
C28H56N6O8S2 L CAS 503465-14-3 (9244)
9,12,15,18,29,32,37,40-Octaoxa-1,4,6,21,23,26-hexaazabicyclo[24.8.8]dotetratriconta
ne-5,22-dithio

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ gl alc/w 25°C 95% C K1=1.70 2004KVa (105049) 546

Medium: 95% MeOH/H2O, 0.01 M Et4NClO4.
****
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
---
Cs+ oth non-aq 25°C 100% U K1=2.0 1995TEa (105078) 547
Medium: tetrahydrofurane: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
---
Cs+ oth non-aq 25°C 100% U K1=2.0 1995TEa (105083) 548
Medium: tetrahydrofurane: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
---
Cs+ con non-aq 25°C C K1=2.7 1999TEa (105088) 549
In: tetrahydrofurane/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
---
Cs+ sp mixed 25°C 90% C 1997KKa (105099) 550
K(CsSCN+L)=3.67
Method: fluorescence emission. Medium: MeOH/CHCl3 (9:1 v/v).
****
C29H40N2O6Cl2 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
---
Cs+ cal non-aq 25°C 100% C H K1=2.90 1998ZBc (105136) 551
Medium: MeOH. DH(K1)=-19.5 kJ mol-1, DS(K1)=-9.90 J K-1 mol-1.
****
C29H58N2O10 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

---
Cs+ ISE alc/w 25°C 90% U K1=3.36 B2=6.73 1988HKa (105169) 552
Medium: 90% w/w MeOH/H2O
****
C30H30N20O10 L CAS 259886-49-2 (8959)
Cucurbit[5]uril;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ sol none 25°C dil C K1=0.90 2001BCf (105215) 553
Method: dissolution of ligand in a 0.002-0.02 M CsX solution; spectrophoto
metric measurement.
****
C30H32O4P2 L (6816)
1,8-Bis(diphenylphosphinyl)-3,6-dioxaoctane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ con non-aq 25°C 100% U K1=2.2 1992BEa (105226) 554
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
---
Cs+ con non-aq 25°C C K1=3.2 1999TEa (105234) 555
In: tetrahydrofurane/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
---
Cs+ con non-aq 25°C 100% U K1=2.1 1986STb (105239) 556
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]henLetetraco
ntadodecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ sp non-aq 25°C 100% U K1=3.3 1996AAb (105252) 557
Medium: MeCN
tacyclo[12.12.12.1(6,9).1(19,22).1(31,34]hentetetraconta-4,6,8.....dodecaene
****
C30H36O6 L ANANAN(MOE)2O (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
--------------------------------------------------------------------------------
Cs+        dis non-aq 25°C 100%  U   H                  1979KLa (105259) 558
                                       K(Cs(picrate)+L)=6.57
Medium: CHCl3
********************************************************************************
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
--------------------------------------------------------------------------------
Cs+        nmr non-aq 25°C 100%  U        K1=<5.24       1986CHc (105271) 559
In CDCl3
********************************************************************************
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
--------------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=3.04        1989KSa (105300) 560
Medium: tetrahydrofuran/CHCl3 4:1 (vol)
********************************************************************************
C30H48O13P2             L                    CAS 112120-14-6  (5729)
1,13-Bis(2-(diethoxyphosphinylmethoxy)phenyl)-1,4,7,10,13-pentaoxatridecane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=4.6         1989EVa (105342) 561
Medium: tetrahydrofuran/CHCl3 4:1 (volume)
********************************************************************************
C31H34O4P2              L                        (7157)
1,9-Bis(diphenylphosphinyl)-3,7-dioxononane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Cs+        oth non-aq 25°C 100%  U        K1=1.8         1995TEa (105524) 562
Medium: THF:CHCl3 4:1 v/v. Cs as 2,4-dinitrophenolate. Also other         si
milar ligands
********************************************************************************
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
--------------------------------------------------------------------------------
Cs+        sp  non-aq 25°C 100%  U    M                  1981SPb (105581) 563
                                       K(CsI+L)=1.30
Medium: CH3CN
********************************************************************************
```

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
---
Cs+ con non-aq 25°C 100% U K1=2.8 1992BEa (105644) 564
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
---
Cs+ con non-aq 25°C C K1=3.7 1999TEa (105649) 565
In: tetrahydrofurane/CHCl3 4:1 v/v
****
C32H38N4O6Cl2 HL CAS 172033-56-6 (8675)
2,2'-[1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diylbis(methylene)]bis[5-Cl
-8-quinolinol]

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ cal non-aq 25°C 100% C H 1995ZBa (105678) 566
K(Cs+HL)=2.70
Medium: methanol. DH(K)=-36.9 kJ mol-1, DS(K)=-72.2 J K-1 mol-1.
****
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;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ con non-aq 25°C 100% U K1=4.2 1989BEa (105775) 567
Medium: tetrahydrofuran/CHCl3 4:1 (volume)
****
C32H46N2O8Cl2 L CAS 181706-75-2 (8626)
3,18-Dichlorododecahydro-5H,16H-6,15-(ethanoxyethanoxyethano)dibenzohexaoxadiazacyc
lohexacosine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ cal non-aq 25°C 100% C H K1=3.94 1998ZBc (105786) 568
Medium: MeOH. DH(K1)=-47.5 kJ mol-1, DS(K1)=-83.9 J K-1 mol-1.
****
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
---
Cs+ con non-aq 25°C 100% U K1=4.8 1989EVa (105822) 569

Medium: tetrahydrofuran/CHCl3 4:1 (volume)
****
C32H55NO13 L CAS 105495-11-2 (1690)
N-(2-(2-(4'-Benzo-18-crown-6)-oxyethoxy)ethyl-1,4,7,10,13-pentaoxa-16-azacyclooctadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ ISE alc/w 25°C 10% U K1=3.21 B2=6.27 1986HAa (105831) 570
Medium: 10% MeOH/H2O
****
C32H64N4O10 L CAS 42133-16-4 (8579)
4,10,13,19,25,28,33,36,41,44-Decaoxa-1,7,16,22-tetraazatricyclo[20.8.8.87,16]hexatetracontane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ ISE alc/w 25°C 95% C K1=4.4 1977LSc (105849) 571
K(CsL+Cs)=3.0
Medium: 95% (w/w) MeOH/H2O, 0.1 M Et4NBr.
****
C32H66N2O4 L 22DD Kryptofix CAS 79495-97-9 (6655)
1,10-Didecyl-1,10-diaza-4,7,13,16-tetraoxacyclooctadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ cal alc/w 25°C 100% U H 1986BUd (105861) 572
In MeOH. DH=-21.7 kJ mol-1
****
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
---
Cs+ cal non-aq 25°C 100% C H K1=3.58 1998ZBc (105926) 573
Medium: MeOH. DH(K1)=-26.5 kJ mol-1, DS(K1)=-20.4 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
---
Cs+ sp non-aq 25°C 100% U K1=7.03 1979KMb (105980) 574
Medium: CHCl3
****
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
-------------------------------------------------------------------------
Cs+        oth non-aq 22°C 100%  U        K1=0.3         1978YSa (106038) 575
Medium: 1:1 v/v EtOH+CHCl3. Cs as acetate salt
*************************************************************************
C34H40O6P2             L                      CAS 137728-08-6  (6838)
1,14-Bis(diphenylphosphinyl)-3,5,8,11-tetraoxatetradecane;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=3.7         1992BEa (106042) 576
Medium: THF+CHCl3 (4:1 vol)
*************************************************************************
C34H40O7P2             L                        (7894)
1,15-Bis(diphenylphosphinyl)-2,5,8,11,14-pentaoxopentadecane;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Cs+        con non-aq 25°C       C        K1=4.2         1999TEa (106049) 577
In: tetrahydrofurane/CHCl3 4:1 v/v
*************************************************************************
C34H42N2O6Cl2          L                      CAS 181706-79-6  (8629)
3,18-Dichlorooctahydro-5H,16H-6,15-(ethanoxyethanoxyethano)tribenzotetraoxadiazacyc
lodocosine;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Cs+        cal non-aq 25°C 100%  C   H    K1=3.72        1998ZBc (106057) 578
Medium: MeOH. DH(K1)=-29.7 kJ mol-1, DS(K1)=-28.4 J K-1 mol-1.
*************************************************************************
C34H44N2O5             L                      CAS 101671-92-5  (5825)
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
-------------------------------------------------------------------------
Cs+        nmr non-aq 25°C 100%  U        K1=7.63        1986CHc (106067) 579
Medium: CDCl3
*************************************************************************
C34H53O8Br           H2L                    CAS 38784-08-6  (2336)
5-Bromolasalocid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Cs+        gl  alc/w  25°C 100%  M   H                    1988PJa (106097) 580
                                        K(Cs+HL)=3.44
Medium: MeOH. DH =-14.4 kJ mol-1; DS = 19
*************************************************************************
C34H54O8             H2L    Lasalocid       CAS 25999-20-6  (2335)
Lasalocid acid;
```

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ nmr non-aq 20°C 100% C 1998MLa (106128) 581
K(Cs+HL)=2.0
Medium: CD3OD. Method: 13C nmr.

Cs+ dis oth/un 25°C 0.0 U K1=1.0 1992LPb (106129) 582

Cs+ gl alc/w 25°C 100% M H 1988PJa (106130) 583
K(Cs+HL)=3.5
Medium: MeOH. DH = -15.1 kJ mol-1; DS = 16

Cs+ gl alc/w 25°C 100% U 1982BDc (106131) 584
K(Cs+2HL)=3.36
Medium: MeOH
****
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
---
Cs+ ISE alc/w 25°C 95% C K1=3.5 1977LSc (106180) 585
K(CsL+Cs)=2.5
Medium: 95% (w/w) MeOH/H2O, 0.1 M Et4NBr.
****
C36H30O3Si3 L CAS 512-63-0 (1285)
Hexaphenyl-cyclotrisiloxane; ((C6H5)2SiO)3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ con alc/w 25°C 100% U K1=<-0.3 1980OPa (106215) 586
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
---
Cs+ con non-aq 25°C 100% U K1=4.9 1989BEa (106218) 587
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
---
Cs+ sol none 25°C dil C K1=2.52 2001BCf (106256) 588
Method: dissolution of ligand in a 0.002-0.02 M CsX solution;

spectrophotometric measurement.

Cs+ sol none 25°C 0.0 U K1=9.64 1992BCa (106257) 589

****

C36H36O4P2 L (2073)

3-t-Butyl-1,2-dihydroxybenzene bis(diphenylphosphinylmethyl) ether

---

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	con	non-aq	25°C	100%	U		K1=2.48	1989KSa (106279)	590

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
Cs+	con	non-aq	25°C	100%	U		K1=3.30	1989KSa (106283)	591

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
Cs+	dis	non-aq	25°C	100%	U	H	K(Cs(picrate)+L)=2.9	1979KLa (106293)	592

Medium: CHCl3

****

C36H40O6 L ANANAN(MOM)2AN 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
Cs+	dis	non-aq	25°C	100%	U	H	K(Cs(picrate)+L)=3.94	1979KLa (106299)	593

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
Cs+	dis	non-aq	25°C	100%	U	H	K(Cs(picrate)+L)=2.85	1979KLa (106305)	594

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
---
Cs+ con non-aq 25°C 100% U K1=3.7 1992BEa (106333) 595
Medium: THF+CHCl3 (4:1 vol)
****
C36H44O8P2 L (7895)
1,18-Bis(diphenylphosphinyl)-hexaoxooctadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ con non-aq 25°C C K1=4.7 1999TEa (106343) 596
In: tetrahydrofurane/CHCl3 4:1 v/v
****
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
---
Cs+ nmr non-aq 25°C 100% U K1=12.009 1986CHc (106377) 597
In CDCl3
****
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
---
Cs+ con non-aq 25°C 100% U K1=4.7 1989BEa (106395) 598
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
---
Cs+ ISE alc/w 25°C 90% U K1=2.62 B2=3.01 1987KHa (106417) 599
90% w/w MeOH/H2O. Also data for the 1,4,7,10-tetraoxadecane-bridged
ligand: K1=2.89; K2=0.74.
****
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
---
Cs+ con alc/w 25°C 100% U I M 1979BDa (106435) 600
K(CsCl+L)=3.17
Medium: MeOH. In DMSO: K(CsClO4+L)=3.13. In MeCN: K(CsBPh4+L)=3.43
****

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
Cs+	con	non-aq	25°C	100%	C	H	K1=1.3	1997PBb (106492)	601

Medium: acetonitrile. Additional method: potentiometry with ISE.
By calorimetry, DH(K1)=-36 kJ mol-1, DS(K1)=-95 J K-1 mol-1.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	vlt	non-aq	25°C	100%	C	I	K1=6.2	1997WRa (106493)	602

Method: cyclic voltammetry. Medium: acetonitrile, 0.05 M Et4NClO4.
In DMSO, K1=3.3; in acetone, K1=5.5.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	vlt	non-aq	23°C	100%	U	I	K1=6.2	1994FRa (106494)	603

Medium: MeCN. In PrCN: K1=5.6; acetone: 5.5; DMF: 5.4; Me-pyrrol.: 4.3;
NN-DMA: 3.9; DMSO: 3.3; Di-Et-formamide: 3.3; Di-Et-acetamide: 3.1; PC: 5.6

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	ISE	alc/w	25°C	100%	M		K1=3.59	1984CTa (106495)	604

Medium: MeOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	ISE	non-aq	25°C	100%	M		K1=4.64	1984CTa (106496)	605

Medium: N,N-dimethylformamide. In DMSO K1=3.24

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	ISE	alc/w	25°C	100%	U		K1=5.18	1984CTb (106497)	606

Medium: EtOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	gl	alc/w	25°C	100%	U		K1=3.75	1978HPa (106498)	607

****

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
Cs+	sp	non-aq	25°C	100%	U		K1=8.54	1979KMb (106631)	608

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
Cs+	con	non-aq	25°C	100%	U		K1=2.7	1993BEb (106641)	609

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

Cs+ con non-aq 25°C 100% U K1=2.9 1991EBa (106647) 610
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
---
Cs+ con non-aq 25°C 100% U K1=3.4 1993EVa (106658) 611
Medium: THF+CHCl3 (4:1 vol). Also data for other solvents
****
C38H48O8P2 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
---
Cs+ con non-aq 25°C 100% U K1=4.4 1992BEa (106679) 612
Medium: THF+CHCl3 (4:1 vol)
****
C38H48O9P2 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
---
Cs+ con non-aq 25°C C K1=4.8 1999TEa (106684) 613
In: tetrahydrofurane/CHCl3 4:1 v/v
****
C38H52N2O7 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
---
Cs+ nmr non-aq 25°C 100% U K1=15.91 1986CHc (106689) 614
In CDCl3
****
C39H50N2O16 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
---
Cs+ sp non-aq 25°C 100% C K1=4.7 2001OYa (106720) 615
K(CsL+L)=1.7
Medium: methanol. For the 1,4-butanediyl derivative, K1=4.6, K(CsL+L)=2.0.
****
C40H36O4P2 L (6805)
1,6-Bis(2-Diphenylphosphinylphenyl)-2,5-dioxahexane; (CH2.O.CH2.C6H4(PO(6H5)2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	con	non-aq	25°C	100%	U		K1=2.4	1993BEb (106732)	616

Medium: THF+CHCl3 4:1(vol)

****

C40H36O5P2 L CAS 86341-96-0 (5724)

1,7-Di(2-diphenylphosphinyl)phenyl-1,4,7-trioxaheptane;Ph2PO.C6H4.O.C2H4.O.C2H4.O.C6H4.POPh2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	con	non-aq	25°C	100%	U		K1=3.6	1991EBa (106744)	617

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
Cs+	con	non-aq	25°C	100%	U		K1=2.27	1989KSa (106763)	618

Medium: tetrahydrofuran/CHCl3 4:1 (vol)

****

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
Cs+	sp	non-aq	25°C	100%	C	H	K1=4.2	1995CUa (106775)	619

Medium: methanol, 0.01 M Et4NCl. By calorimetry: DH(K1)=-23 kJ mol-1, DS(K1)=2 J K-1 mol-1.

****

C40H48O8 L AN2DP(OEOEO)2E (2235)

3,4,5,6-Bis(3-methyl-5-(2-methoxy-5-methylbenzo))-2,7,10,13,16,19-hexaoxacyclodocosa-3,5-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	dis	non-aq	25°C	100%	U	H	K(Cs(picrate)+L)=5.49	1979KLa (106793)	620

Medium: CHCl3

****

C40H50N20O10 L CAS 143902-45-8 (8935)

Decamethylcucurbit[5]uril;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	cal	mixed	25°C	50%	C	H	K1=1.57	2000ZKb (106805)	621

Medium: 50% v/v formic acid/H2O. DH(K1)=-18.4 kJ mol-1, DS(K1)=-32 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
---
Cs+ ISE non-aq 25°C 100% C K1=3.47 1998WLc (106821) 622
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-octao
xatetracosane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ con non-aq 25°C 100% U K1=4.8 1989BEa (106826) 623
Medium: tetrahydrofuran/CHCl3 4:1 (volume)
****
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
---
Cs+ ISE alc/w 25°C 90% U K1=4.07 B2=4.57 1987KHa (106834) 624
90% w/w MeOH/H2O. Also data for the 1,4,7,10-tetraoxadecane-bridged
ligand: K1=4.20; K2=0.67.
****
C40H64O12 L Nonactin CAS 6833-84-7 (4179)
Nonactin

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ sp non-aq 25°C 100% C K1=3.18 1977CEb (106838) 625
Method: temperature jump relaxation. Medium: MeOH.

Cs+ vlt non-aq 22°C 100% U K1=2.59 1974RKd (106839) 626
Medium: 0.025 NBu4ClO4 in CH3CN

Cs+ oth alc/w 30°C 100% U K1=2.86 1973ZFa (106840) 627
Method: vapour pressure osmometry. Medium: methanol.

Cs+ nmr non-aq 17°C 100% U K1=4.0 1970PCa (106841) 628
Medium: CsClO4 in acetone. With 0.5 mol fraction water, K1=2.6
****
C41H42O6 L CAS 151832-07-4 (6874)
9-(Dimethylethyl)-29,30,31,32,33-pentamethoxy-23-oxahexacyclotritriacontapentadecan
e;

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

Cs+ dis non-aq 25°C 100% U 1993HSa (106869) 629
K(Cs(picrate)+L)=5.52
Medium: CDCl3
****
C41H66O12 L Monactin CAS 7182-54-9 (4180)
Monactin

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ sp non-aq 25°C 100% C K1=3.30 1977CEb (106885) 630
Method: temperature jump relaxation. Medium: MeOH.

Cs+ oth alc/w 30°C 100% U K1=3.04 1973ZFa (106886) 631
Method: vapour pressure osmometry. Medium: MeOH
****
C42H40O4P2 L (7153)
1,2-Bis(2-(2-(diphenylphosphinyl)ethyl)phenoxy)ethane

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ oth non-aq 25°C 100% U K1=1.8 1995TEa (106910) 632
Medium: THF:CHCl3 4:1 v/v. Cs 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
---
Cs+ con non-aq 25°C 100% U K1=2.3 1993BEb (106915) 633
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
---
Cs+ con non-aq 25°C 100% U K1=2.8 1993BEb (106923) 634
Medium: THF+CHCl3 4:1(vol)

Cs+ con non-aq 25°C 100% U K1=2.21 1989KSa (106924) 635
Medium: tetrahydrofuran/CHCl3 4:1 (vol)
****
C42H40O7P2 L CAS 95651-36-8 (2079)
1,7-Di(2-(diphenylphosphinylmethoxy)phenyl)-1,4,7-trioxaheptane;
(Ph2PO.CH2.O.C6H4.O.C2H4)2O

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ con non-aq 25°C 100% U K1=3.50 1989KSa (106933) 636
Medium: tetrahydrofuran/CHCl3 4:1 (vol)

Cs+ con non-aq 25°C 100% U K1=3.50 1989TKb (106934) 637
Medium: tetrahydrofuran/CHCl3 4:1 (volume)
****
C42H50O7 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
---
Cs+ sp non-aq 25°C 100% C K1=4.8 2000PBa (106948) 638
Medium: MeOH.

Cs+ dis non-aq 22°C 100% C M 1996CPa (106949) 639
K(CsA+L(org)=CsAL(org))=6.87
Medium: CHCl3 saturated with H2O. Method: extraction of CsA into CHCl3/L solution. HA is picric acid. For the cone conformation, K=<4.
****
C42H68O12 L CAS 20261-85-2 (5373)
Dinactin;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ sp non-aq 25°C 100% C K1=3.62 1977CEb (106978) 640
Method: temperature jump relaxation. Medium: MeOH.

Cs+ oth alc/w 30°C 100% U K1=3.23 1973ZFa (106979) 641
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
---
Cs+ oth non-aq 25°C 100% U K1=1.8 1995TEa (106998) 642
Medium: THF:CHCl3 4:1 v/v. Cs as 2,4-dinitrophenolate. Also other si
milar ligands
****
C43H42O6P2 L (5734)
1,7-Di((2-diphenylphosphynylmethoxy)phenyl-1,7-dioxaheptane;
(Ph2PO.CH2O.C6H4.O.C2H4)2CH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ con non-aq 25°C 100% U K1=1.30 1989TKb (107003) 643
Medium: tetrahydrofuran/CHCl3 4:1 (volume)
****
C43H70O12 L CAS 7561-71-9 (5374)
Trinactin;

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

---
Cs+ oth alc/w 30°C 100% U K1=3.34 1973ZFa (107030) 644
Method: vapour pressure osmometry. Medium: MeOH
****
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
---
Cs+ con non-aq 25°C 100% U K1=1.9 1993BEb (107089) 645
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
---
Cs+ con non-aq 25°C 100% U K1=3.7 1993BEb (107108) 646
Medium: THF+CHCl3 4:1(vol)
****
C44H44O5P2 L (5733)
1,7-Di(2-(diphenylphosphynylethyl)phenyl)-1,4,7-trioxaheptane;
(Ph2PO.C2H2.C6H4.OC2H4)2O

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ oth non-aq 25°C 100% U K1=1.7 1995TEa (107116) 647
Medium: THF:CHCl3 4:1 v/v. Cs as 2,4-dinitrophenolate
****
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
---
Cs+ sp non-aq 20°C 100% C K1=3.42 2002MTb (107135) 648
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
---
Cs+ gl non-aq 25°C 100% C K1=3.1 2000ABb (107142) 649
B(Cs2L)=7.50
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
---
Cs+ sp non-aq 25°C 100% C K1=1.9 1999USa (107157) 650
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
---
Cs+ sp non-aq 25°C 100% C IH K1=5.4 1996AAe (107163) 651
Medium: acetonitrile. By calorimetry, DH(K1)= -40.5 kJ mol-1, DS(K1)=-32
J K-1 mol-1. In 100% MeOH, K1=5.1, DH(K1)=-44, DS(K1)=-50.
****
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
---
Cs+ sp non-aq 25°C 100% C K1=6.19 2000PBa (107169) 652
Medium: MeOH.
****
C44H54O8 L CAS 161282-98-0 (8679)
25,27-Bis(1-proplyoxy)calix[4]arene-crown-6, 1,3-alternate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ EMF non-aq 25°C 100% C K1=6.4 1995CUa (107174) 653
Medium: methanol, 0.01 M Et4NClO4. Method: Ag-competitive potentiometry.
****
C44H54O8 L CAS 161282-96-8 (8678)
25,27-Bis(2-proplyoxy)calix[4]arene-crown-6, 1,3-alternate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ EMF non-aq 25°C 100% C H K1=6.1 1995CUa (107180) 654
Medium: methanol, 0.01 M Et4NClO4. Method: Ag-competitive potentiometry.
By calorimetry, DH(K1)=-50.2 kJ mol-1, DS(K1)=-52 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
---
Cs+ nmr non-aq 20°C 100% U K1=2.2 1996ABa (107185) 655
Medium: acetone
****
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
---
Cs+ con non-aq 25°C 100% U K1=3.3 1984YKa (107211) 656
Medium: tetrahydrofuran + CHCl3 4:1, Cs 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
---
Cs+ con non-aq 25°C 100% U K1=2.2 1984YKa (107224) 657
Medium: tetrahydrofuran + CHCl3 4:1, Cs 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
---
Cs+ con non-aq 25°C 100% U K1=3.7 1991EBa (107239) 658
Solvent : Tetrahydrofurane + 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
---
Cs+ sp mixed 25°C 90% C 1997KKa (107248) 659
K(CsSCN+L)=2.07
Method: fluorescence emission. Medium: MeOH/CHCl3 (9:1 v/v).
****
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
---
Cs+ con non-aq 25°C 100% U K1=3.9 1993BEb (107258) 660
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
---
Cs+ oth non-aq 25°C 100% U K1=2.2 1995TEa (107269) 661
Medium: THF:CHCl3 4:1 v/v. Cs as 2,4-dinitrophenolate. Also other si
milar 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
------------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=4.45        1989KSa (107278) 662
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
------------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=3.96        1989KSa (107359) 663
Medium: tetrahydrofuran/CHCl3 4:1 (vol)
******************************************************************************
C48H50O8P2              L                        (6808)
1,18-Bis(2-Diphenylphosphinylphenyl)-2,5,8,11,14,17-hexaoxananodecane;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=4.3         1993BEb (107363) 664
Medium: THF+CHCl3   4:1(vol)
******************************************************************************
C48H54O10P4             L                      CAS 97910-30-0  (2084)
Tris((2-(diphenylphosphinylmethoxy)ethoxy)methyl)phosphine oxide;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Cs+        con non-aq 25°C 100%  U        K1=3.84        1989KSa (107386) 665
Medium: tetrahydrofuran/CHCl3 4:1 (vol)
******************************************************************************
C48H60O8             H2L    R-Bu-Calixarene  CAS 147513-53-9  (6705)
4-tert-Butylcalix[4]arenedicarboxylic acid;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Cs+        gl  alc/w  25°C 100%  C        K1=4.21        1993ABb (107400) 666
                                        B(Cs2L)=8.05
Medium: MeOH, 0.01 M Et4NClO4. Data also for di-tert-butyl ester
******************************************************************************
C48H60O12               L                      CAS 157769-14-7  (9090)
1,3-Calix[4]-bis-crown-6;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Cs+        sp  non-aq 25°C 100%  C  IH    K1=4.9         1996AAe (107409) 667
Medium: acetonitrile.By calorimetry, DH(K1)=-29.7 kJ mol-1, DS(K1)=-6
J K-1 mol-1. In 100% MeOH, K1=4.8, DH(K1)=-56.2, DS(K1)=-98.
******************************************************************************
C48H60O16            H4L                        (8251)
5,11,17,23-Tetrahydroxycalix[4]arene-bis(crown-6);
```

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ sp non-aq 25°C 100% C K1=5.79 2001PCa (107414) 668
Medium: methanol
****
C48H64O8 L CAS 354800-65-0 (8253)
1,6,11,16-Tetra-t-butyl-2,5,7,10,12,15,17,20-octaoxa-1,6,11,16(1,2)-tetrabenzenacyc
loicosaphane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ dis non-aq 25°C 100% C K1=10.9 2001LSa (107425) 669
K(CsL+NO3)=2.93
K(CsL+ClO4)=2.92
K'(Cs+L+NO3=Cs(L)NO3)=0.54
K'(Cs+L+ClO4=Cs(L)ClO4)=3.67
Medium: 1,2-dichloroethane. K': Cs(aq)+L(org)+NO3(aq)=Cs(L)NO3(org).
****
C49H60O14 HL CAS 317810-09-6 (8840)
5-Carboxycalix[4]arene-bis(crown-6-ether) 1,3-alternate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ dis non-aq 25°C 100% U 2002TTb (107450) 670
K(Cs+HL(org)=CsL(org)+H)=-4.15
Method: extraction from H2O into CHCl3.
****
C50H60NO15F3S HL CAS 317810-10-9 (8841)
5-N-(Trifluoromethylsulfonyl)carbamoylcalix[4]arene-bis(crown-6-ether)
1,3-alternate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ dis non-aq 25°C 100% U 2002TTb (107457) 671
K(Cs+HL(org)=CsL(org)+H)=1.63
Method: extraction from H2O into CHCl3.
Data for related N-(X-sulfonyl)-derivatives.
****
C52H64O12 H4L R-Bu-Calixarene CAS 113215-72-8 (6704)
5,11,17,23-Tetra-(t-butyl)-25,26,27,28-tetrakis[(hydroxycarbonyl)methoxy]calix[4]ar
ene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ gl alc/w 25°C 100% C K1=6.2 1993ABb (107488) 672
B(CsHL)=17.2
B(CsH2L)=27.3
B(CsH3L)=35.9
In methanol; 0.01 M (CH3CH2)4NClO4

****
C52H68N4O8 L (4823)
25,27-Bis(N,N-diethylaminocarbonylmethoxy)-26,28-bis(N-butylaminocarbonylmethoxy)calix[4]arene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ sp non-aq 25°C 100% C K1=<1 1999USa (107506) 673
Medium: MeOH, 0.10 M Et4NCl
****
C54H74O7 L (7302)
25,27-Dimethoxy-4-tert-butylcalix[4]arene-crown-5;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ dis non-aq 22°C 100% U K1=5.67 1996SCa (107540) 674
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
---
Cs+ dis non-aq 22°C 100% C M 1996CPa (107547) 675
K(CsA+L(org)=CsAL(org))=8.97
Medium: CHCl3 saturated with H2O. Method: extraction of CsA into CHCl3/L solution. HA is picric acid.

Cs+ sp alc/w 25°C 100% U K1=3.90 1972FEb (107548) 676
Medium: methanol/0.1M tetrabutyl-ammonium-perchlorate
****
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
---
Cs+ sp non-aq 25°C 100% C H K1=4.9 1996AAe (107576) 677
Medium: acetonitrile. By calorimetry, DH(K1)=-11.4 kJ mol-1, DS(K1)=57 J K-1 mol-1.
****
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-oxyeth;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ oth non-aq RT 100% C I K1=6.9 2002LAa (107581) 678
K(CsL+Cs)=3.91
B(Cs2L)=10.8

Method: fluorimetry. Medium: EtOH. In CH3CN, K1=5.77, K(CsL+Cs)=3.36,
B(Cs2L)=9.1.
****
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
---
Cs+ dis non-aq 25°C 100% C 2001SSb (107585) 679
KCs.pic+L(org)=CsL.pic)=0.85
Distribution of picrate salt into CHCl3/HL.
K: Cs.pic(aq)+L(org)=CsL.pic(org). Data for series of myo-inositol ligands
****
C56H72O8 L CAS 123311-74-0 (6160)
Tetramethyl-t-butylcalix[4]arenetetraketone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ sp alc/w 25°C 100% U I K1=3.1 1989ACb (107596) 680
Medium: MeOH. In CH3CN, K1=3.7
****
C56H78O8 L CAS 122356-76-7 (8681)
Tetra-tert-butyl-1,3-dimethoxycalix[4]arene-crown-6;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ sp non-aq 25°C 100% C H K1=4.6 1995CUa (107605) 681
Medium: methanol, 0.01 M Et4NCl. By calorimetry: DH(K1)=-36 kJ mol-1,
DS(K1)=-30 J K-1 mol-1.
****
C58H78O11 HL CAS 465527-74-6 (9287)
7,13,19,25-Tetra-t-butyl-28-methoxy-27,29,30-triethylacetate-2,3-dihomo-3-oxacalix[
4]arene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ sp alc/w 25°C 100% C K1=3.0 2001MAa (107621) 682
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]ar
ene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ sp non-aq 25°C 100% C H K1=3.19 2004BCb (107630) 683
Medium: acetonitrile, 0.01 M Et4NClO4. DH(K1)=-6.7 kJ mol-1,
DS(K1)=38.4 J K-1 mol-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
Cs+	sp	alc/w	25°C	100%	U	I	K1=2.7	1989ACb (107648)	684

Medium: MeOH. In CH3CN, K1=2.8

****

C60H82N2O10 L CAS 155377-20-1 (8806)
5,11,17,23-Tetra-butyl-25,27-bis(carboxymethoxy)-bis[(N,N-diethylaminocarbonyl)methoxy]calix[4]ar

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Cs+	gl	non-aq	25°C	100%	C		K1=3.2 B(Cs2L)=8.35	2000ABb (107665)	685

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
Cs+	sp	non-aq	25°C	100%	C		K1=<1	1999USa (107678)	686

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
Cs+	sp	non-aq	25°C	100%	C		K1=4.0	1991ACc (107692)	687

Medium: acetonitrile, 0.01 M Et4NClO4.

****

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
Cs+	sp	non-aq	25°C	100%	C	H	K1=6.3 B(Cs2L)=10.1	1999LDa (107733)	688

Medium: acetonitrile, 0.01 M Et4NClO4.
By calorimetry, DH(K1)=-29.0 kJ mol-1, DH(Cs2L)=-54.0 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

Cs+ con non-aq 25°C 100% U K1=2.2 1990EAb (107738) 689
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
---
Cs+ sp non-aq 25°C 100% C H K1=4.9 1996AAe (107743) 690
Medium: acetonitrile. By calorimetry, DH(K1)=-11 kJ mol-1, DS(K1)=57
J K-1 mol-1.
****
C64H64O16 L CAS 474540-93-7 (8853)
25,27:26,28-Bis[4-methyl-2-oxochromene-6,7-diylbis[2-(2-oxyethoxy)ethoxy]]calix[4]a
rene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ oth non-aq RT 100% C I K1=6.68 2002LAa (107748) 691
K(CsL+Cs)=3.81
B(Cs2L)=10.0
Method: fluorimetry. Medium: EtOH. In CH3CN, K1=6.0, K(CsL+Cs)=4.3,
B(Cs2L)=10.3.
****
C64H72N4O4P4 L CAS 104786-07-4 (2065)
1,4,7,10-Tetra(diphenylphosphinylethyl)-1,4,7,10-tetraazacyclododecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ con non-aq 25°C 100% U K1=3.6 1986STb (107751) 692
Medium: THF:CHCl3 4:1 v/v. M as 2,4-dinitrophenolate
****
C64H86O7 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
---
Cs+ sp alc/w 25°C 100% U H K1=3.16 1996AAc (107767) 693
Medium MeOH, 0.1 M Et4NCl. DH(K1)=-10.9 kJ mol-1; DS=24 J K-1 mol-1.
Data also for the crown-5 and crown-6 analogues
****
C68H100N4O8 L CAS 246035-35-8 (3034)
25,27-Bis(N,N-diethylaminocarbonylmethoxy)-26,28-bis(N-butylaminocarbonylmethoxy)-t
-butylcalix[4]

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ sp non-aq 25°C 100% C K1=<1 1999USa (107803) 694
Medium: MeOH, 0.10 M Et4NCl
****

C68H100N4O8 L CAS 114155-16-7 (7183)
4-tert-Butylcalix[4]arene tetradiethylacetamide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ cal alc/w 25°C 100% U IH 1995ABc (107811) 695
Medium: 100% Methanol. DH(K1)=-9 kJ mol-1, DS(K1)=17 J K-1 mol-1.
In acetonitrile, K1=3.5, DH(K1)=-26 kJ mol-1, DS(K1)=-20 J K-1 mol-1.

Cs+ dis non-aq 20°C 100% C M 1988AGa (107812) 696
K(Cs+A+L(org)=CsAL(org))=7.23
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
---
Cs+ sp alc/w 25°C 100% C K1=4.36 2004MFa (107832) 697
Medium: MeOH, 0.01 M Et4NCl.
****
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
---
Cs+ con non-aq 25°C 100% U K1=3.47 1985YKa (107845) 698
Medium: EtOH+CHCl3 1:1; M is used in nitrophenolate form
****
C75H100O15 L CAS 152495-34-6 (7033)
Penta-tert-butylpentakis(ethoxycarbonylmethyloxy)calix[5]arene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ EMF alc/w 25°C 100% U K1=5.5 1993BMa (107858) 699
Medium: MeOH, 0.1 M Et4NClO4.
****
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
---
Cs+ sp non-aq 25°C 100% U K1=5.6 1989ACb (107868) 700
Medium: CH3CN
****
C77H82O9 L CAS 253317-20-3 (9288)
p-Tert-butyldihomooxacalix[4]arene tetraphenyketone;

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

---
Cs+ sp alc/w 25°C 100% C I K1=2.2 1999MAb (107892) 701
Medium: MeOH, 0.01 M Et4NCl. In acetonitrile, K1=4.1.
****
C78H90O10P2 L CAS 160638-26-6 (9130)
5,11,17,23-Tetra-t-butyl-bis(diethylcarbamoylmethoxy)-bis(diphenylphosphinoylmethox
y)calix[4]aren

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ sp alc/w 20°C 100% C K1=2.66 2003YVa (107898) 702
Medium: 100% EtOH, 0.01 M Et4NBr. Ligand is cone isomer. For paco isomer,
K=2.61. 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
---
Cs+ dis non-aq 25°C 100% U 1995FDa (107903) 703
K=4.04
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
---
Cs+ sp non-aq 25°C 100% C I K1=5.26 2000AAa (107910) 704
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
---
Cs+ EMF alc/w 25°C 100% U K1=5.3 1993BMa (107915) 705
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
---
Cs+ sp mixed 25°C 50% C K1=6.9 2001JDa (107920) 706
K(CsL+Cs)=4.0
Medium: 50% v/v CH2Cl2/MeOH, 0.01 M benzyl(trimethyl)ammonium hydroxide.

Method: fluorescence spectroscopy.
****
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
Cs+	sp	non-aq	25°C	100%	U	I	K1=4.3	1989ACb (107939)	707

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
Cs+	sp	non-aq	25°C	100%	C	I	K1=5.55	2000AAa (107949)	708

Medium: methanol, 0.01 M Et4NCl. By potentiometry, K1=5.45.
Also data for acetonitrile, 0.01 M Et4NClO4 and for 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
Cs+	dis	non-aq	25°C	100%	U		K=4.09	1995FDa (107964)	709

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
Cs+	dis	non-aq	25°C	100%	U		K=4.63	1995FDa (107976)	710

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
Cs+	dis	non-aq	25°C	100%	U		K=5.43	1995FDa (107981)	711

Medium: CDCl3. Method: by H2O/CDCl3 extraction of picrate salt.
K: MA(org)+L(org)=MLA(org) where A=picrate.
****

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
---
Cs+ dis non-aq 25°C 100% U 1995FDa (108007) 712
K=4.53
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
---
Cs+ dis non-aq 25°C 100% U 1995FDa (108018) 713
K=5.50
Medium: CDCl3. Method: by H2O/CDCl3 extraction of picrate salt.
K: MA(org)+L(org)=MLA(org) where A=picrate.
****
Polymer PEG 400 (6647)
Polyethylene glycol 400;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ nmr oth/un 20°C 0.0 C K1=2.77 1989GSc (108335) 714
Method: 1H and 133Cs pulsed gradient spin-echo nmr. Medium: D2O.
****
Polymer (4204)
Pyruvate kinase;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Cs+ sp R4N.X 25°C 0.10M U 1966SSc (108402) 715
K'=1.36
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
---
Cs+ sp non-aq 25°C 100% U K1=7.80 1979KMb (108424) 716
Medium: CHCl3
****
Polymer (1965)
poly(Benzo-1,4,7,10,13-pentaoxacyclopentadecane)

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

Cs+ sp non-aq 25°C 100% U K1=7.62 1979KMb (108428) 717
Medium: CHCl3

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EXPLANATORY NOTES

DATA Flags are :-

T Data at other TEMPERATURES
I Data with various BACKGROUNDS
H Data for THERMOCHEMICAL quantities
M Data for TERNARY Complexes

EVALUATION Flags are :-

T or IUP=T signifies EVALUATION RATING = Tentative by IUPAC

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