SC-Database
Software version = 5.81 Data version = 4.62
Experiment list contains 246 experiments for
 (no ligands specified)
 Metal : Sc+++
 (no references specified)
 (no experimental details specified)

****
e- HL Electron (442)
Electron;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Sc+++ oth none 25°C 0.0 U 1952LAb (930) 1
K(Sc+3e)=-105.3(-2.08 V)
Method:combination of thermodynamic data
****
AsO4--- H3L Arsenate CAS 7778-39-4 (1557)
Arsenate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Sc+++ sol none 25°C 0.0 C 1992FIa (1159) 2
Kso(ScAsO4)=-26.72
Equilibrium monitored by EDTA and iodine titrations.
****
Br- HL Bromide CAS 10035-10-6 (19)
Bromide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Sc+++ ix NaClO4 20°C .691M U K1=-0.07 B2=-0.40 1964MRa (2306) 3

Sc+++ EMF NaClO4 25°C 0.50M U T H K1=1.21 B2=1.73 1962PAb (2307) 4
Method: Ag electrode. K1=1.24, K2=0.54(15 C); K1=1.18, K2=0.48(35 C). DH(K1)
=-2.1 kJ m-1,DS=-17 J K-1 mol-1; DH(K2)=-2.5,DS=0. I=0 corr. K1=2.08,K2=1.00
****
BrO3- HL Bromate (6017)
Bromate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Sc+++ dis NaClO4 25°C 1.0M U T K1=0.65 B2=0.74 1972MHa (2431) 5
Medium: HClO4. K1=0.79, K2=-0.23(15 C); K1=0.76, K2=-0.05(20 C);
K1=0.56, K2=0.22(30 C)
****
CO3-- H2L Carbonate CAS 465-79-6 (268)
Carbonate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	sol	NaNO3	25°C	1.00M	U		1989NZa (3367)		6
							B3=16.62		
Sc+++	sol	none	25°C	0.0	C		1986FMa (3368)		7
							Kso(Sc2(CO3)3)=-35.77		
Sc+++	sol	none	25°C	0.0	C		1986HMa (3369)		8
							Kso(Sc2(CO3)3)=-35.77		

Method: spectrophotometry.

****

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

Chloride;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	oth	oth/un	?	var	U		1971SCc (5689)		9
							K3=-2.5		
							K4=-3.0		

Method: ionophoresis

Sc+++	ix	NaClO4	25°C	4.0M	U		K1=-0.12 B2=-0.84	1966SHa (5690)		10
							B3=-1.40			
Sc+++	ix	NaClO4	20°C	1.0M	U		K1=-0.80	1965ABb (5691)		11
							B3=0.16			
Sc+++	ix	NaClO4	20°C	.691M	U		K1=0.04 B2=-0.11	1964RSc (5692)		12
Sc+++	ix	NaClO4	?	2.50M	U		K1=0.14 B2=0.54	1964SAc (5693)		13
Sc+++	ix	NaClO4	?	10.0M	U			1964SAc (5694)		14
							B4=-1.88			
Sc+++	dis	NaClO4	?	6.0M	U		K1=1.45 B2=0.70	1964SAc (5695)		15
							B3=-0.22			
							B4=-0.37			
							Kd(H+Sc+4Cl+2TBP(in TBP))=0.08			
Sc+++	EMF	NaClO4	25°C	0.50M	U	TIH	K1=1.07 B2=2.11	1962PAb (5696)		16

K1=1.45(15 C), 1.00(35 C), 1.11(15 C), 0.91(35 C). DH(K1)=-6.3 kJ mol-1, DS=0; DH(K2)=-7.1, DS=-4 J K-1 mol-1. I=0 corr.: K1=1.95, K2=1.57

Sc+++	sol	NaClO4	25°C	0.50M	U		K1=-0.24	1962SOa (5697)		17
Sc+++	gl	none	25°C	0.0	U			1961AKa (5698)		18
							Kso(Sc(OH)2Cl)=-21.66			
							Kso(Sc(OH)2.5Cl0.5)=-26.17			

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	dis	NaClO4	25°C	1.0M	U	T H	K2=-1.10	1972MHa (6060)	19

Medium: HClO4. K1=-0.02(15-30 C);DH(K1)=0; K2=-0.80(15 C), -0.89(20 C), -1.30(30 C)

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	dis	oth/un		10.0M	U		K1=0.78 B2=0.61 B3=0.10 B4=-0.96 Kd(H+Sc+4L+4TBP(org))=0.70 Kd(Sc+3L+3TBP(org))=-9.19	1964SAc (6376)	20

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	cal	NaClO4	25°C	0.50M	C	H		1992LHa (7146)	21

DH(K1)=-9.02 kJ mol-1, DS(K1)=59.4 J K-1 mol-1; DH(K2)=-18.46, DH(K3)=-14.50, DH(K4)=-49.70.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	ISE	KNO3	25°C	0.10M	C	M	K1=6.22 B2=11.52 K3=3.95	1987YHa (7147)	22

K(ScA+F)=3.90(H3A=NTA), 3.62(H3A=HEDTA), 1.9(H4A=EDTA), 2.5(H4A=CDTA)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	ISE	NaClO4	25°C	0.50M	U		K1=6.18 B2=11.52 B3=15.8 B(Sc2L3)=19.0	1980HMa (7148)	23
Sc+++	dis	NaClO4	25°C	0.50M	C		K1=6.17 B2=11.44	1970ALc (7149)	24

Method: extraction of 46Sc from 0.50 M NaClO4 medium into toluene/ di-(2-ethylhexyl)phosphoric acid. Medium pH 2.5.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	ISE	NaClO4	25°C	0.50M	U		K1=6.22 B2=11.33 B3=15.23	1969ALa (7150)	25
Sc+++	dis	NaClO4	25°C	0.50M	U		K1=6.17 B2=11.44 B3=15.46 B4=18.49	1969ALd (7151)	26
Sc+++	EMF	NaClO4	25°C	0.50M	U	H		1967APa (7152)	27

DH(K1)=2.5 kJ mol-1, DS=125 J K-1 mol-1

```
--------------------------------------------------------------------------------
Sc+++      EMF NaClO4 25°C 0.50M U T H                  1959KPa  (7153)  28
                                        K(Sc+HF=ScF+H)=3.28
                                        K(ScF+HF=ScF2+H)=2.37
                                        K(ScF2+HF=ScF3+H)=1.16
                                        K(ScF3+HF=ScF4+H)=-0.07
At 15 C: *K1=3.33,*K2=2.46,*K3=1.23,*K4=-0.15. At 35 C: 3.21,2.26,1.06,-0.30
DH(*K1)=-9.6 kJ mol-1,DS=29; DH(*K2)=-17,DS=-13; DH(*K3)=-14,DS=-25
--------------------------------------------------------------------------------
Sc+++      EMF NaClO4 25°C 0.50M U  I     K1=6.19   B2=11.47  1959KPa  (7154)  29
                                        K3=4.08
                                        K4=2.85
At I=0 corr: K1=7.08, K2=5.81, K3=4.48, K4=2.85
--------------------------------------------------------------------------------
Sc+++      EMF NaClO4 25°C 0.50M U TIH    K1=6.18   B2=11.45  1955PAa  (7155)  30
                                        K3=4.07
                                        K4=2.51
At 15 C: K1=6.19, K2=5.32, K3=4.11, K4=2.33. At 35 C: 6.21, 5.26, 4.06, 2.00
At 25 C: DH(K1)=1.6 kJ mol-1,DS=123; DH(K2)=-5.2,DS=83; DH(K3)=-5.3,DS=60
********************************************************************************
Mo12O42U--------      H8L                       (2922)
Uranium-12-molybdate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Sc+++      gl  oth/un 20°C 0.10M U        K1=4.81        1989SBb  (8780)  31
                                        B(ScHL)=8.72
                                        B(Sc2L)=8.40
********************************************************************************
NH3                     L    Ammonia          CAS 7664-41-7  (414)
Ammonia
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Sc+++      gl  R4N.X  25°C 5.00M U        K1=0.7         1985MMa  (9213)  32
********************************************************************************
NO3-                    HL    Nitrate          CAS 7697-37-2  (288)
Nitrate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Sc+++      ix  NaClO4 20°C  1.0M U        K1=0.34        1966BAa  (9913)  33
--------------------------------------------------------------------------------
Sc+++      ix  NaClO4 25°C  4.0M U        K1=0.28   B2=-0.28  1966SHa  (9914)  34
Medium: HClO4
--------------------------------------------------------------------------------
Sc+++      dis oth/un   ?   5.0M U                       1965SAg  (9915)  35
                                        Kd(Sc+3L+3T(TBP))=2.6
--------------------------------------------------------------------------------
Sc+++      ix  NaClO4      2.50M U        K1=0.55   B2=0.08   1964SAc  (9916)  36
```

****

OH- HL Hydroxide (57)
Hydroxide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	sol	NaNO3	25°C	1.00M	U		B4=23.71	1989NZa (12104)	37
Sc+++	gl	KNO3	25°C	0.10M	C		*B(1,1)=-4.840 *B(2,2)=-6.096 *B(5,3)=-17.567	1983BEa (12105)	38
Sc+++	sp	NaClO4	22°C	0.10M	U		K1=9.08	1980DGa (12106)	39
Sc+++	gl	alc/w	25°C	25%	U	I	*K1=-4.13 *B2=-8.59	1972USa (12107)	40
Medium: 25% v/v EtOH/H2O, 0.05 M NaClO4. *K1=-4.55,*B2=-8.76(0%); *K1=-3.7,*B2=-7.9(50%); *K1=-4.22(0%,I=0)									
Sc+++	gl	KNO3	25°C	0.10M	U		*K1=-4.47 *B(2,2)=-5.86	1971AOa (12108)	41
Sc+++	oth	NaClO4	25°C	1.00M	U	I	K1=9.29 B2=17.77 K3=7.73	1971KPb (12109)	42
Data also for KNO3(K1=9.40;K2=8.04;K3=8.55),Na2SO4(9.15;8.76;7.80) and KSCN (9.32;8.53;7.50)(Ki depend upon [Sc3+]tot)									
Sc+++	sol	oth/un	25°C		U		K(ScL3(s)+L=ScL4)=-4.9 K(ScL3(s)+2L=ScL5)=-5.1 K(ScL3(s)+3L=ScL6)=-6.3	1970IEb (12110)	43
Sc+++	kin	NaClO4	25°C	0.10M	U		*K1=-4.8 to -4.5 *K2=-4.65	1969CRa (12111)	44
Sc+++	gl	oth/un	20°C	0.10M	U		*K1=-4.90 *K2=-5.78 *K3=-6.58	1968ANe (12112)	45
Sc+++	gl	NaClO4	25°C	1.00M	U		*B(2,2)=-6.12 *B(3,4)=-14.18 *B(3,5)=-17.48 *K1=-5.14	1966AVa (12113)	46

```
--------------------------------------------------------------------------------
Sc+++      gl  NaClO4 25°C 1.00M U                      1966AVa (12114)  47
                                      *B(2,2)=-6.14
                                      *B(3,4)=-13.00
                                      *B(3,5)=-17.47
                                      *K1=-5.11
--------------------------------------------------------------------------------
Sc+++      sol none   25°C  0.0  M                      1963AKb (12115)  48
                                      Kso=-29.70
--------------------------------------------------------------------------------
Sc+++      sol NaClO4 25°C 1.00M U                      1963SCb (12116)  49
                                      *Kso=10.5
--------------------------------------------------------------------------------
Sc+++      gl  none   25°C  0.0  U                      1961AKa (12117)  50
                                      Kso(Sc(OH)3)=-29.70
--------------------------------------------------------------------------------
Sc+++      EMF NaClO4 25°C 0.50M U  I                   1954KPa (12118)  51
                                      *K1(Sc(H2O)6)=-4.90
                                      *B(2,2)=-5.90
                                      K(2ScOH=Sc2(OH)2)=3.90
*B(2,2):K(2Sc+2H2O=Sc2(OH)2+2H). In 0.1 M NaClO4 *K1=-4.74,*B(2,2)=-5.67,
K(Sc2(OH)2)=3.82. Method: quinhydrone electrode
--------------------------------------------------------------------------------
Sc+++      EMF NaClO4 25°C  1.0M U                      1953KPc (12119)  52
                                      *K1(Sc(H2O)6)=-4.93
                                      *B(2,2)=-5.99
                                      K(2ScOH=Sc2(OH)2)=3.87
*B(2,2): K(2Sc+2H2O=Sc2(OH)2+2H). Method: quinhydrone electrode
--------------------------------------------------------------------------------
Sc+++      gl  oth/un 25°C  dil  U                      1938OKa (12120)  53
                                      Kso(Sc(OH)3)=-30.1
Method: also solubility
********************************************************************************
PO4---                H3L    Phosphate        CAS 7664-38-2  (176)
Phosphate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Sc+++      ix  R4N.X    ?  0.20M U                      1974FGc (13320)  54
                                      K(2Sc+H3L=Sc2HL+2H)=3.53
--------------------------------------------------------------------------------
Sc+++      oth oth/un   ?     ?  U                      1971FNb (13321)  55
                                      K(Sc+HL)=0.15
--------------------------------------------------------------------------------
Sc+++      ix  NaClO4 25°C 0.60M U  I                   1970LSe (13322)  56
                                      K(Sc+H2L)=3.76
At 0 corr, K=4.72
********************************************************************************
SCN-                   HL    Thiocyanate      CAS 463-56-9  (106)
Thiocyanate;
```

```
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Sc+++      oth NaClO4 20°C 0.10M U  I   T K1=1.87        1970SGb (15251)  57
Using distribution in HClO4: K1=0.27 (I=1)
-------------------------------------------------------------------------------
Sc+++      sp  NaClO4 20°C 0.60M U  I   T K1=0.20        1964KSe (15252)  58
Medium: HClO4. K1=0.7 to 1.0(I=3.65)
*******************************************************************************
SO4--                  H2L    Sulfate          CAS 7664-93-9  (15)
Sulfate;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Sc+++      cal oth/un 25°C  0.0  U   H    K1=4.04   B2=5.70   1969IEa (16531)  59
DH(K1)=26.4 kJ mol-1, DH(K2)=16.6. DS(K1)=165.5 J K-1 mol-1, DS(K2)=87.8
-------------------------------------------------------------------------------
Sc+++      ix  NaClO4 25°C 0.50M U        K1=2.59   B2=3.96   1967KIa (16532)  60
-------------------------------------------------------------------------------
Sc+++      ix  NaClO4 20°C  1.0M U        K1=2.57        1966BAe (16533)  61
                                         *K1=1.49
Medium: HClO4
-------------------------------------------------------------------------------
Sc+++      ix  NaClO4 25°C 0.50M U        K1=1.66   B2=3.04   1965TAa (16534)  62
                                         B3=4.0
-------------------------------------------------------------------------------
Sc+++      ix  NaClO4   ?  2.50M U        K1=0.62   B2=1.50   1964SAc (16535)  63
*******************************************************************************
SeO4--                 H2L    Selenate         CAS 7783-08-6  (459)
Selenate;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Sc+++      ix  NaClO4 45°C 0.50M U T H    K1=1.68   B2=3.33   1967KIa (17109)  64
K1=1.78(25 C), 1.75(35 C); B2=2.64(25 C), 3.15(35 C).
DH(K1)=-9.6 kJ mol-1, DS=2 J K-1 mol-1; DH(B2)=163.9, DS=530
*******************************************************************************
C2H2O4                 H2L    Oxalic acid      CAS 144-62-7  (24)
Ethanedioic acid; (COOH)2
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Sc+++      gl  NaClO4 20°C 0.10M U        K1=8.12        1985SAa (19051)  65
-------------------------------------------------------------------------------
Sc+++      gl  oth/un 25°C 0.05M U        K1=8.74        1973CSd (19052)  66
-------------------------------------------------------------------------------
Sc+++      ISE oth/un 25°C 0.05M U        K1=9.31        1973CSd (19053)  67
-------------------------------------------------------------------------------
Sc+++      gl  oth/un 25°C 0.05M U                       1973CSd (19054)  68
                                         K(Sc+HL)=7.36
```

```
-------------------------------------------------------------------------------
Sc+++      dis NaClO4 20°C 1.00M U        K1=7.14   B2=12.69  1971GAa (19055)  69
                                          B3=15.68
                                          B4=17.11
-------------------------------------------------------------------------------
Sc+++      sp  KNO3   20°C 0.01M U        K1=9.35         1966KZa (19056)  70
-------------------------------------------------------------------------------
Sc+++      sp  KNO3   19°C 0.01M U        K1=8.3          1966KZc (19057)  71
Medium: HNO3, 18-20 C
-------------------------------------------------------------------------------
Sc+++      dis NaClO4 20°C 0.10M U                        1963STc (19058)  72
                                          B3=16.28
*******************************************************************************
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
-------------------------------------------------------------------------------
Sc+++      gl  NaClO4 20°C 0.10M U        K1=3.14         1985SAa (20159)  73
-------------------------------------------------------------------------------
Sc+++      gl  KNO3   25°C 0.10M U   H    K1=3.48         1984IIb (20160)  74
Also data for 40 C. From data for 25 and 40 C, DH(K1)=-1.25 kJ mol-1,
DS(K1)=63.1 J K-1 mol-1.
*******************************************************************************
C2H4O3                 HL    Glycolic acid    CAS 79-14-1  (33)
2-Hydroxyethanoic acid; HO.CH2.COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Sc+++      gl  KNO3   25°C 0.10M U   H    K1=4.40         1984IIb (20623)  75
Also data for 40 C. From data for 25 and 40 C, DH(K1)=-121 kJ mol-1,
DS(K1)=-323 J K-1 mol-1.
*******************************************************************************
C2H5NO2                HL    Glycine          CAS 56-40-6  (85)
2-Aminoethanoic acid; H2N.CH2.COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Sc+++      gl  NaClO4 20°C 0.10M U      T K1=7.13         1985SAa (21701)  76
-------------------------------------------------------------------------------
Sc+++      gl  alc/w  20°C  60%  U  I   T K1=6.95         1980SKc (21702)  77
In 0.1 M NaCl: K1=7.70
-------------------------------------------------------------------------------
Sc+++      gl  NaClO4 30°C  0.2M U      T K1=7.75         1977MSf (21703)  78
*******************************************************************************
C3H4O4                H2L    Malonic acid     CAS 141-82-2  (79)
Propanedioic acid; CH2(COOH)2
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
```

Sc+++ gl KNO3 25°C 0.10M U K1=6.78 B2=11.90 1984IIa (24544) 79

Sc+++ gl NaClO4 25°C 1.00M U K1=5.87 B2=10.12 1969GHa (24545) 80
B3=13.07

Sc+++ sp KNO3 19°C 0.01M U K1=4.19 1966KZc (24546) 81
Medium: HNO3

****

C3H6O2 HL Propionic acid CAS 79-09-4 (35)
Propanoic acid; CH3.CH2.COOH

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

---

Sc+++ gl KNO3 25°C 0.10M U H K1=3.77 1984IIb (25048) 82
Also data for 40 C. From data for 25 and 40 C, DH(K1)=-8.78 kJ mol-1,
DS(K1)=42.0 J K-1 mol-1.

****

C3H6O3 HL L-Lactic acid CAS 79-33-4 (82)
L-2-Hydroxypropanoic acid; CH3.CH(OH).COOH

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

---

Sc+++ gl NaClO4 20°C 0.10M U K1=3.77 1985SAa (25531) 83

Sc+++ EMF alc/w 25°C 20% U I K1=5.89 1973LSa (25532) 84
Data also for 0%, 40.3% EtOH and 0.05 NaClO4 in 0%, 20% and 40.3% EtOH

****

C3H7NO2 HL Alanine CAS 56-41-7 (86)
2-Aminopropanoic acid; H2N.CH(CH3).COOH

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

---

Sc+++ gl KNO3 25°C 0.10M U K1=7.7 1967EMb (26256) 85

****

C3H8O3 L Glycerol CAS 56-81-5 (2707)
Propane-1,2,3-triol; HO.CH2.CH(OH).CH2.OH

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

---

Sc+++ gl NaClO4 25°C 0.10M U 1971UKa (27747) 86
K(Sc+HL=ScL+H)=-1.58

****

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

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

---

Sc+++ gl KNO3 25°C 0.10M C 1991SKb (28585) 87
K(ScL+H)=7.12

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Sc+++	gl	KNO3	25°C	0.10M	U		K1=5.98	B2=10.25	1984IIa (29129)	88

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Sc+++	gl	KNO3	25°C	0.10M	U		K1=5.55	B2=9.43	1984IIa (30034)	89
Sc+++	sp	oth/un	19°C	0.01M	U		K1=4.48		1966KZc (30035)	90

Medium: HNO3,18-20 C

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Sc+++	gl	NaClO4	25°C	1.0M	C		K1=3.93	B2= 5.74	1976DEa (30229)	91
							B(ScHL)=6.16			

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Sc+++	cal	NaClO4	25°C	1.00M	U		K1=8.28		1969GHa (30923)	92
Sc+++	gl	NaClO4	25°C	1.00M	U		K2=4.49		1969GHa (30924)	93

C4H6O6 H2L L-Tartaric acid CAS 87-69-4 (92)
L-Tartaric acid, L-2,3-Dihydroxybutanedioic acid; HOOC.CH(OH).CH(OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Sc+++	gl	NaClO4	20°C	0.10M	U				1985SAa (31347)	94
							B(ScH-1L)=3.20			
							K(Sc+H-1L)=17.60			
Sc+++	sp	KNO3	19°C	0.01M	U		K1=6.20		1966KZc (31348)	95
Sc+++	dis	NaClO4	20°C	0.10M	U		B2=12.5		1963STc (31349)	96

Medium: HNO3

C4H7NO4 H2L IDA CAS 142-73-4 (118)
Iminodiethanoic acid; HN(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Sc+++	sp	oth/un	25°C	0.10M	U		K1=9.85		1997YSa (32351)	97
Sc+++	gl	NaClO4	20°C	0.10M	U		K1=9.80		1985SAa (32352)	98
Sc+++	gl	alc/w	20°C	60%	U	I	K1=10.10		1980SKc (32353)	99
In 0.1 M NaCl: K1=11.47										
Sc+++	gl	KCl	25°C	0.10M	U		K1=9.35		1974KPd (32354)	100
Sc+++	gl	NaClO4	25°C	1.00M	U		K1=9.85 B(ScHL)=11.59 B(ScH2L)=13.5	B2=16.06	1972GGa (32355)	101

****

C4H8N2O3 HL Asparagine CAS 70-47-3 (17)
2-Aminobutanedioic acid 4-amide; H2N.CH(CH2.CO.NH2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	gl	NaClO4	30°C	0.2M	U		K1=7.08	1977MSf (32729)	102

****

C4H8O2 HL Isobutyric acid CAS 79-31-2 (573)
2-Methylpropanoic acid; CH3.CH(CH3).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	gl	KNO3	25°C	0.10M	U	H	K1=4.47	1984IIb (33245)	103
Also data for 40 C. From data for 25 and 40 C, DH(K1)=-90.1 kJ mol-1, DS(K1)=-217 J K-1 mol-1.									

****

C4H8O3 HL CAS 594-61-6 (81)
2-Hydroxy-2-methylpropanoic acid; (CH3)2C(OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	gl	KNO3	25°C	0.10M	U	H	K1=4.84	1984IIb (33514)	104
Also data for 40 C. From data for 25 and 40 C, DH(K1)=-115 kJ mol-1, DS(K1)=-292 J K-1 mol-1.									

****

C4H11O3P HL CAS 4546-11-6 (8313)
Methylphosphonic acid monopropyl ester;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	dis	oth/un	20°C	1.0M	C			1994NSc (35247)	105
K(Sc+5HL(org)=ScL3(HL)2(org)+3H)=10.5. Method: extraction of 46Sc from 1.0 M HNO3 into benzene. Data for a range of alkyl- and cyclohexyl- esters									

****

C5H6O4 H2L Itaconic acid CAS 97-65-4 (398)
Methylenesuccinic acid; HOOC.CH2.C(:CH2).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Sc+++ gl KNO3 25°C 0.10M U K1=4.77 B2=8.77 1984IIa (37445) 106
****
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
---
Sc+++ dis NaClO4 25°C 0.10M C K1=8.02 B2=14.38 1987SKc (38072) 107
K3=5.01
Method: extraction of 46Sc into heptane/acac phase.

Sc+++ gl KNO3 25°C 0.10M U H K1=7.77 1984IIb (38073) 108
Also data for 40 C. From data for 25 and 40 C, DH(K1)=-388 kJ mol-1,
DS(K1)=-1154 J K-1 mol-1.

Sc+++ sp KNO3 19°C 0.01M U K1=8.4 1966KZc (38074) 109
Medium: HNO3

Sc+++ dis NaClO4 25°C 0.10M U K1=8.3 1966SKa (38075) 110

Sc+++ gl oth/un 30°C 0.0 U K1=8.0 B2=15.2 1955IFa (38076) 111
****
C5H8O4 H2L Glutaric acid CAS 110-94-1 (420)
Pentanedioic acid; HOOC.CH2.CH2.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Sc+++ gl KNO3 25°C 0.10M U K1=5.21 B2=8.91 1984IIa (38351) 112

Sc+++ gl alc/w 25°C 40% U I K1=6.24 1973CSd (38352) 113
Medium: 0-50% (v/v) EtOH, 0.05 M. K1(0%)=4.82, K1(50%)=6.96

Sc+++ sp KNO3 19°C 0.01M U K1=4.1 1966KZc (38353) 114
Medium: HNO3
****
C5H8O7 H2L CAS 40120-71-6 (3022)
2,3,4-Trihydroxypentanedioic acid, Trihydroxyglutaric acid; HOOC.(CH(OH))3.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Sc+++ EMF oth/un 25°C 0.10M U K1=5.4 1969PSc (38438) 115
****
C5H10N2O3 HL Glutamine CAS 56-85-9 (18)
2-Aminopentanedioic acid 5-amide; H2N.CH(CH2.CH2.CO.NH2)COOH

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Sc+++      gl  NaClO4 30°C  0.2M U        K1=7.41        1977MSf (39837) 116
**************************************************************************
C6H4N2O5               HL                     CAS 50-28-5  (505)
2,4-Dinitrophenol; HO.C6H3(NO2)2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Sc+++      gl  KCl    21°C 0.10M U        K1=2.4         1978KYb (42238) 117
**************************************************************************
C6H4N2O5               HL                     CAS 329-71-5  (1941)
2,6-Dinitrophenol; HO.C6H3(NO2)2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Sc+++      gl  KCl    21°C 0.10M U        K1=2.6         1978KYb (42248) 118
**************************************************************************
C6H4O6                H4L                     CAS 5678-48-2  (871)
Tetrahydroxy-1,4-benzoquinone;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Sc+++      EMF NaClO4 30°C 0.10M U        K1=6.20   B2=8.60   1981HIa (42326) 119
**************************************************************************
C6H5NO3                HL    2-Nitrophenol    CAS 88-75-5  (510)
2-Nitrohydroxybenzene; HO.C6H4.NO2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Sc+++      gl  KCl    21°C 0.10M U        K1=5.0         1978KYb (42739) 120
**************************************************************************
C6H5NO3                HL    4-Nitrophenol    CAS 100-02-7  (454)
4-Nitrohydroxybenzene; HO.C6H4.NO2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Sc+++      gl  KCl    21°C 0.10M U        K1=5.2         1978KYb (42815) 121
**************************************************************************
C6H6N2O2               HL    Cupferron        CAS 135-20-6  (637)
N-Nitrosophenylhydroxylamine; C6H5.N(OH).NO
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Sc+++      vlt oth/un 22°C 0.10M C    M                    1982GJa (43420) 122
                                          K(Sc+L+DPG)=7.09
**************************************************************************
C6H6O                  HL    Phenol           CAS 108-95-2  (457)
Hydroxybenzene, phenol; C6H5.OH
--------------------------------------------------------------------------
```

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Sc+++      gl  NaClO4 25°C 0.10M U        K1=7.17        1971UKa (43544) 123
*************************************************************************
C6H6O2                H2L    Catechol         CAS 120-80-9  (534)
1,2-Dihydroxybenzene, pyrocatechol; HO.C6H4.OH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Sc+++      gl  NaClO4 25°C 0.10M U        K1=17.04       1971UKa (43819) 124
*************************************************************************
C6H6O3                H3L    Pyrogallol       CAS 87-66-1  (696)
1,2,3-Trihydroxybenzene; C6H3(OH)3
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Sc+++      gl  NaClO4 30°C 0.20M U    M   K1=14.79       1978MSk (43977) 125
                                          K(Sc(nta)+L)=10.56
*************************************************************************
C6H6O6                H3L    cis-Aconitic     CAS 585-84-2  (3064)
cis-1,2,3-Propenetricarboxylic acid, cis-Aconitic acid; HOOC.CH:C(COOH)CH2.COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Sc+++      gl  NaCl   20°C 0.10M U        K1=6.38        1986SKb (44301) 126
*************************************************************************
C6H6O8S2              H4L    Tiron            CAS 149-45-1  (104)
4,5-Dihydroxybenzene-1,3-disulfonic acid; (HO)2.C6H2(SO3H)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Sc+++      gl  KNO3   25°C 0.10M U        K1=18.73  B2=47.61  2005ATa (44488) 127
-------------------------------------------------------------------------
Sc+++      gl  NaClO4 25°C 0.10M U        K1=18.96       1972GKc (44489) 128
                                          K(Sc+HL)=8.94
-------------------------------------------------------------------------
Sc+++      gl  KNO3   25°C 0.10M U        K1=18.07       1971AOa (44490) 129
                                          K(ScL+H)=1.92
                                          K(ScLOH+H)=6.10
*************************************************************************
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
-------------------------------------------------------------------------
Sc+++      gl  NaClO4 20°C 0.10M U                        1985SAa (46247) 130
                                          B(ScH-1L)=5.62
                                          K(Sc+H-1L)=21.52
-------------------------------------------------------------------------
Sc+++      sp  KNO3   19°C 0.01M U        K1=7.00        1966KZc (46248) 131
```

Medium: HNO3

****

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
Sc+++	gl	oth/un	20°C	0.20M	U				1970VMa (47007)	132
							B(ScL(OH))=7.44			
Sc+++	ISE	NaClO4	25°C	0.10M	U	T	K1=12.7		1967SKe (47008)	133
Sc+++	dis	NaClO4	20°C	0.10M	U	T	B2=24.1		1963STc (47009)	134
Sc+++	vlt	KNO3	20°C	0.10M	U				1957NOa (47010)	135
							K(Sc2L3)=42.20			

****

C6H10O4 H2L Adipic acid CAS 124-04-9 (401)
1,6-Hexanedioic acid; HOOC.(CH2)4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Sc+++	gl	KNO3	25°C	0.10M	U		K1=5.25	B2=8.75	1984IIa (48085)	136
Sc+++	sp	KNO3	19°C	0.01M	U		K1=4.4		1966KZc (48086)	137

Medium: HNO3

****

C6H11NO5 H2L HIMDA CAS 93-62-9 (192)
N-(2-Hydroxyethyl)iminodiethanoic acid; HO.CH2.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Sc+++	oth	NaNO3	20°C	0.10M	U		K2=8.65		1966JMc (48787)	138

Method: paper electrophoresis

****

C6H12O7 HL Gluconic acid CAS 526-95-4 (904)
D-Gluconic acid, 2,3,4,5,6-Pentahydroxyhexanoic acid; HO.CH2(CHOH)4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Sc+++	gl	KNO3	25°C	0.10M	U	H	K1=4.21		1984IIb (49756)	139

Also data for 40 C. From data for 25 and 40 C, DH(K1)=52.3 kJ mol-1, DS(K1)=257 J K-1 mol-1.

****

C6H13NO4 HL Bicine CAS 150-25-4 (2124)
N,N-Bis(2-hydroxyethyl)glycine; (HO.CH2.CH2)2N.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Sc+++	oth	NaNO3	20°C	0.10M	U		K1=8.0	B2=15.60	1966JMc (50402)	140

Method: paper electrophoresis

****

C6H15O3P HL CAS 3935-30-6 (8314)
Methylphosphonic acid monoisopentyl ester;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	dis	oth/un	20°C	1.0M	C			1994NSc (51504)	141

K(Sc+5HL(org)=ScL3(HL)2(org)+3H)=16.4. Method: extraction of 46Sc from 1.0 M HNO3 into benzene. Data for a range of alkyl- and cyclohexyl- esters

****

C6H20N2O12P4 H8L EDTPA CAS 1429-50-1 (434)
Ethane-1,2-bis(iminobis(methylenephosphonic acid)); ((H2O3PCH2)2NCH2.)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	gl	KNO3	25°C	0.10M	C			1991SKb (52357)	142
							K(ScL+H)=7.0		
							K(ScHL+H)=8.1		

****

C7H5NO4 H2L Dipicolinic aci CAS 449-83-2 (418)
2,6-Pyridinedicarboxylic acid; C5H3N.(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	ISE	NaClO4	25°C	0.50M	U		K1=11.2 B2=18.9	1969GHa (52802)	143

****

C7H6O2 HL Tropolone CAS 533-75-5 (3129)
2-Hydroxycyclohepta-2,4,6-trien-1-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	dis	non-aq	25°C	100%	C			2001NCa (53688)	144
							K(ScL3+TOPO)=4.27		

TOPO is trioctylphosphane oxide. Medium: toluene.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	dis	none	25°C	0.0	U		K1=7.5 B2=15.70	1999NKa (53689)	145
							B3=21.6		
							B4=23.8		

Media: toluene/H2O. Constants refer to equilibria in H2O.

****

C7H6O3 H2L Salicylic acid CAS 69-72-7 (14)
2-Hydroxybenzoic acid, Salicylic acid; HO.C6H4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	gl	NaClO4	20°C	0.10M	U	T	K1=14.20	1985SAa (54289)	146
Sc+++	dis	NaCl	20°C	0.10M	U			1979FKc (54290)	147
							K(Sc+HL)=2.48		

K(Sc+2HL)=4.70
K(Sc+3HL)=6.72

Sc+++ ix mixed 20°C 50% U 1976TRa (54291) 148
K(Sc+HL)=3.23
K(Sc+2HL)=5.92
K(Sc+3HL)=8.91

Medium: 50% v/v acetone/H2O, 0.25 M NaClO4

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	gl	KCl	25°C	0.10M	U		K1=21.36	2005TUa (54472)	149
							K(Sc+L+H2L)=23.03		

****

C7H6O4 H3L Protocatechuic CAS 99-50-3 (875)
3,4-Dihydroxybenzoic acid; C6H3(OH)2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	gl	KCl	25°C	0.10M	U		K1=16.88	2005TUa (54696)	150
							K(Sc+L+H2L)=19.71		

****

C7H6O5 H4L Gallic acid CAS 149-91-7 (446)
3,4,5-Trihydroxybenzoic acid; C6H2(OH)3.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	gl	NaClO4	30°C	0.20M	U	M	K1=16.62	1978MSk (54762)	151
							K(Sc(nta)+L)=10.68		

****

C7H6O6S H3L CAS 5965-83-3 (399)
5-Sulfosalicylic acid, 2-Hydroxy-5-sulfobenzoic; HO3S.C6H3(OH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	gl	NaClO4	20°C	0.10M	U		K1=11.23	1985SAa (55043)	152

Sc+++	sp	KNO3	19°C	0.01M	U		K1=3.96	1966KZc (55044)	153

****

C7H8O3 HL Ethylmaltol CAS 4940-11-8 (7628)
2-Ethyl-3-hydroxy-4H-pyran-4-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	dis	none	25°C	0.0	U		K1=9.1 B2=17.40	1999NKa (56102)	154
							B3=23.3		

Media: toluene/H2O. Constants refer to equilibria in H2O.

```
**************************************************************************
C8H5N5O6              H3L    Murexide          (453)
Purpuric acid (Murexide is ammonium salt);
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Sc+++      sp  KNO3   12°C 0.10M U                      1965GEa (58531) 155
                                       K(Sc+H2L)=4.50
**************************************************************************
C8H5O2F3S              HL    TTA             CAS 326-91-0  (165)
4,4,4-Trifluoro-1-(2-thienyl)butane-1,3-dione; F3C.CO.CH2.CO.C4H3S
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Sc+++      dis NaClO4 25°C 0.10M U        K1=6.34   B2=11.76  1968ZSb (58674) 156
                                       B3=19.26
--------------------------------------------------------------------------
Sc+++      dis NaClO4 25°C 0.10M U        K1=7.1         1966SKa (58675) 157
**************************************************************************
C8H8N2O2              H2L                          (3821)
1-(2'-Hydroxyphenyl)-4-oxo-2,3-diazabut-1-ene;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Sc+++      sp  alc/w  19°C  28%  U                      1963HOc (59325) 158
                                       K(?)=4.88
Medium: 28% EtOH, 0.025 M, acetate buffer
**************************************************************************
C8H8N2O3              H3L                          (3822)
1-(2',4'-Dihydroxyphenyl)-4-oxo-2,3-diazabut-1-ene;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Sc+++      sp  alc/w  19°C  28%  U                      1963HOc (59348) 159
                                       K(?)=4.72
Medium:28% EtOH, 0.025 M, acetate buffer
**************************************************************************
C8H8O3                 HL    Mandelic Acid    CAS 611-72-3  (80)
2-Phenyl-2-hydroxyethanoic acid; C6H5.CH(OH).COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Sc+++      gl  KNO3   25°C 0.10M U   H    K1=2.91        1984IIb (59868) 160
Also data for 40 C. From data for 25 and 40 C, DH(K1)=5.43 kJ mol-1,
DS(K1)=74.2 J K-1 mol-1.
--------------------------------------------------------------------------
Sc+++      sp  KNO3   19°C 0.01M U        K1=5.40        1966KZc (59869) 161
Medium: HNO3
**************************************************************************
C8H8O4                H3L                     CAS 102-32-9  (1826)
```

3,4-Dihydroxyphenylethanoic acid; C6H3(OH)2.CH2COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	gl	KCl	25°C	0.10M	U		K1=18.16	2005TUa (60070)	162
							K(Sc+L+H2L)=21.75		

****

C8H8O4 HL CAS 520-45-6 (4478)
3-Acetyl-2-hydroxy-6-methylpyran-4-one, Dehydroethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	gl	diox/w	35°C	50%	U		K1=5.07 B2=9.56	1971MAa (60096)	163

Medium: 50% dioxan, 0.1 M NaClO4

****

C8H9NO4 H2L (4520)
Dehydroethanoic acid oxime;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	gl	diox/w	35°C	50%	U			1971MAa (60502)	164
							K(Sc+HL)=4.68		
							K(Sc+2HL)=8.65		

Medium: 50% dioxan, 0.1 M NaClO4

****

C8H13NO6S H3L (5675)
2-Mercapto-1-aminoethane-N,N,S-triethanoic acid; HOOC.CH2.S.CH2.CH2.N(CH2COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	gl	NaClO4	25°C	0.10M	U		K1=11.51	1975POa (61831)	165
							K(Sc+HL)=2.94		

****

C8H19O4P HL CAS 107-66-4 (2130)
Dibutylphosphoric acid; (C4H9O)2P(O)OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	dis	oth/un	26°C	0.10M	C	I		1992SNc (63192)	166

K(Sc+4HL(org)=ScL3(HL)(org)+3H)=18.6. Method: extraction of 46Sc from HNO3 solution into CFC-112.

****

C9H6NOCl HL CAS 130-16-5 (1268)
5-Chloro-8-hydroxyquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	gl	diox/w	25°C	60%	U			1973SCd (63665)	167
							B3=28.41		

Medium: 60% dioxan, 0.1 M NaClO4

****

C9H6NO4IS H2L Ferron CAS 547-91-1 (275)
7-Iodo-8-hydroxyquinoline-5-sulfonic acid; (HO)(HO3S)C9H4NI

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Sc+++	gl	oth/un	20°C	0.10M	U		K1=8.23		1977SKd (63826)	168

****

C9H6N2O3 HL CAS 5437-99-0 (3865)
5-Nitro-8-hydroxyquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Sc+++	gl	diox/w	25°C	60%	U				1973SCd (63866)	169
							B3=21.57			

Medium: 60% dioxan, 0.1 M NaClO4

****

C9H7NO HL Oxine CAS 148-24-3 (504)
8-Hydroxyquinoline (8-quinolinol);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Sc+++	sol	none	RT	0.0	U				1981FCa (64338)	170
							Kso(ScL3)=-34.52			

Method: spectrophotometry.

Sc+++	gl	oth/un	20°C	0.10M	U	I	K1=9.60		1978GMb (64339)	171

In 60% EtOH/H2O: K1=11.66

Sc+++	gl	diox/w	25°C	50%	U		K1=11.27	B2=20.88	1978THc (64340)	172
							B3=36.43			
Sc+++	gl	oth/un	20°C	0.10M	U		K1=9.31		1977SKd (64341)	173
Sc+++	gl	diox/w	25°C	60%	U				1973SCd (64342)	174
							B3=30.54			

Medium: 60% dioxan, 0.1 M NaClO4

****

C9H7N3O2S H2L TAR CAS 2246-46-0 (707)
4-(2'-Thiazolylazo)-resorcinol; C3H2NS.N:N.C6H3(OH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
Sc+++	gl	alc/w	25°C	50%	U				1967NPb (64725)	175
							K(Sc+HL)=10.4			
							K(ScHL+HL)=9.9			

Medium: 50% MeOH, 0.1 M NaClO4

****

C9H10N2O2 HL (3265)
Salicylaldehyde acetylhydrazone; HO.C6H4.CH:N.NH.CO.CH3

```
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Sc+++      sp  alc/w  19°C  28%  U                         1963HOc (65239) 176
                                      K(?)=4.59
Medium: 28% EtOH, 0.025 M acetate buffer
*******************************************************************************
C9H10N2O3             H3L                        (4636)
1-(2',4'-Dihydroxyphenyl)-4-oxo-2,3-diazapent-1-ene;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Sc+++      sp  alc/w  20°C  40%  U        K1=4.5           1968URa (65247) 177
Medium: 40% EtOH, 0.1 M NaClO4
*******************************************************************************
C10H8O5S              H3L    DHNSA              (877)
2,3-Dihydroxynaphthalene-6-sulfonic acid;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Sc+++      gl  NaClO4 30°C 0.20M U    M   K1=14.11         1978MSl (69859) 178
                                         K(Sc(edta)+L)=7.22
*******************************************************************************
C10H9NO                HL                      CAS 5541-67-3  (999)
5-Methyl-8-hydroxyquinoline;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Sc+++      gl  diox/w 25°C  50%  U        K1=11.2   B2=19.8   1978THc (70067) 179
                                         B3=28.3
*******************************************************************************
C10H10O2               HL    Benzoylacetone   CAS 93-91-4  (197)
1-Phenylbutane-1,3-dione; C6H5.CO.CH2.CO.CH3
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Sc+++      sp  KNO3   19°C 0.01M U        K1=8.8           1966KZc (70768) 180
*******************************************************************************
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
-------------------------------------------------------------------------------
Sc+++      gl  NaClO4 20°C 0.10M U        K1=21.00         1985SAa (74135) 181
-------------------------------------------------------------------------------
Sc+++      sp  NaCl   20°C 0.05M U        K1=21.84         1972KBb (74136) 182
-------------------------------------------------------------------------------
Sc+++      gl  KNO3   25°C 0.10M U    M                   1972KBb (74137) 183
                                         K(ScL+A)=8.47
                                         K(ScL+B)=8.33
```

```
                                        K(ScL+C)=8.14
H4A=4,5-dihydroxybenzene-1,3-disulphonic acid
H3B=2,3-dihydroxynaphthalene-6-sulphonic acid,     H2C=pyrocatechol
-------------------------------------------------------------------------
Sc+++      nmr oth/un 40°C 0.10M U                      1969MGc (74138) 184
                                        K(ScL(H2O)n+H) < 1.5
                                        K(Sc(OH)L(H2O)n-1+H)=10.6
-------------------------------------------------------------------------
Sc+++      EMF NaClO4 20°C 0.10M U      T K1=25.05      1967BAc (74139) 185
                                        K(ScL+H)=2
                                        K(ScL+OH)=3.3
-------------------------------------------------------------------------
Sc+++      dis NaClO4 20°C 0.10M U       K1=23.0        1963STc (74140) 186
                                        B(ScL(OH))=27.43
Medium: KClO4
-------------------------------------------------------------------------
Sc+++      vlt KNO3   20°C 0.10M U      T K1=23.1       1954SGa (74141) 187
                                        K(ScLOH+H)=10.54
                                        K(ScL+H)=10.88
*************************************************************************
C11H8O4                HL                    CAS 7555-37-5  (4812)
3-Acetyl-4-hydroxycoumarin
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Sc+++      gl  diox/w 35°C  50%  U        K1=4.32   B2=7.73   1971MAa (77184) 188
Medium: 50% dioxan, 0.01 M NaClO4
*************************************************************************
C11H9NO2               HL                    CAS 92609-55-3  (4827)
5-Acetyl-8-hydroxyquinoline;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Sc+++      gl  diox/w 25°C  60%  U                      1973SCd (77333) 189
                                        B3=26.43
Medium: 60% dioxan, 0.1 M NaClO4
*************************************************************************
C11H9NO4              H2L                   CAS 4321-82-7  (4829)
3-Acetyl-4-hydroxycoumarin oxime;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Sc+++      gl  diox/w 35°C  50%  U                      1971MAa (77427) 190
                                        K(Sc+HL)=3.92
                                        K(Sc+2HL)=7.04
Medium: 50% dioxan, 0.01 M NaClO4
*************************************************************************
C11H9N3O2              H2L    PAR             CAS 1141-59-9  (636)
4-(2'-Pyridylazo)-1,3-dihydroxybenzene; C5H4N.N:N.C6H3(OH)2
-------------------------------------------------------------------------
```

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Sc+++      sp  KCl    20°C 0.10M U                          1971EKa (77577) 191
                                      K(Sc+HL)=6.25
-------------------------------------------------------------------------
Sc+++      sp  oth/un 20°C    ?  U                          1962SHa (77578) 192
                                      K(Sc+HL)=12.8
*************************************************************************
C12H9N2O3Cl           H3L                    CAS 76260-35-0  (4950)
5-Chloro-2,2',4'-trihydroxyazobenzene; (Cl)(HO)C6H3.N:N.C6H4(OH)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Sc+++      sp  NaClO4 20°C 0.10M U                          1969ANb (80600) 193
                                      K(Sc+HL)=11.42
*************************************************************************
C12H9N2O5BrS          H3L                    CAS 35495-38-6  (4966)
1-(3'-Bromo-4',5'-dihydroxyphenyl)azobenzene-4-sulfonic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Sc+++      sp  NaCl   20°C 0.10M U                          1966BLa (80609) 194
                                      K(Sc+H2L=ScHL+H)=5.4
*************************************************************************
C12H9N2O5ClS          H3L                    CAS 26351-56-4  (4964)
1-(3'-Chloro-4',5'-dihydroxyphenyl)azobenzene-4-sulfonic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Sc+++      sp  NaCl   20°C 0.10M U                          1966BLa (80610) 195
                                      K(Sc+H2L=ScHL+H)=6.4
*************************************************************************
C12H9N2O6ClS          H4L    Lumogallion     CAS 4386-25-8  (4967)
5-Chloro-2-hydroxy-1-(2',4'-dihydroxyphenylazo)-3-sulfobenzene;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Sc+++      sp  NaClO4 20°C 0.10M U                          1969ANb (80613) 196
                                      K(Sc+HL)=6.35
                                      K(ScOH+2H2L)=12.14
*************************************************************************
C12H10N2O3            H3L                    CAS 69323-27-9  (3971)
2,2',4'-Trihydroxyazobenzene; HO.C6H4.N:N.C6H3(OH)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Sc+++      sp  NaClO4 20°C 0.10M U                          1969ANb (80722) 197
                                      K(Sc+HL)=11.41
*************************************************************************
C12H18N2O5S           H2L                    CAS 80459-15-0  (1595)
```

2-Nitroso-5-(N-propyl-3-sulfopropylamino)phenol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	gl	KNO3	25°C	0.10M	C		K1=7.48	1988YSa (81818)	198

****

C12H19O3P HL CAS 66170-45-4 (8310)
Phenylphosphonic acid monohexyl ester;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	dis	NaCl	RT	2.0M	C			1977NAc (81994)	199

K(Sc+6HL(org)=ScL3(HL)3(org)+3H)=26.6
Method: extraction from 2.0 M NaCl solution into benzene.

****

C12H20N2O9 H4L EEDTA CAS 923-73-9 (2112)
Oxa-bis(ethyleneimino)diethanoic acid; ((HOOC.CH2)2N.CH2.CH2)2O

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	gl	KCl	20°C	0.10M	U		K1=20.64	1975KAb (82561)	200

****

C13H11NO2 HL CAS 304-88-1 (181)
N-Phenylbenzohydroxamic acid; C6H5.CO.N(C6H5).OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	gl	diox/w	25°C	50%	U		K1=9.15 B2=17.64	1972GDb (85175)	201

Medium: 50% acetone, 0.25 M NaClO4

****

C13H13N3 L CAS 102-06-7 (994)
sym-N,N'-Diphenylguanidine; C6H5.NH.C(NH).NH(C6H5)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	vlt	oth/un	25°C	?	U	M		1990WZa (85502)	202
							B(Sc+L+Cupferron)=7.23		

****

C14H11N5O2 H3L (5046)
1,5-Bis(2-hydroxyphenyl)-3-cyanoformazan; HO.C6H4.N:N.C(CN):N.NH.C6H4.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	sp	NaClO4	25°C	0.10M	U			1971BSf (87009)	203
							B(ScH4L2)=59.6		

****

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

```
------------------------------------------------------------------------------
Sc+++      dis NaClO4 20°C 0.10M U        K1=25.4        1963STc (88770) 204
                                        B(ScL(OH))=28.0
******************************************************************************
C14H23N3O10           H5L    DTPA            CAS 67-43-6  (238)
Diethylenetriamine-pentaethanoic acid; HOOC.CH2.N(CH2.CH2.N(CH2.COOH)2)2
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Sc+++      sp  oth/un 20°C  dil  U        K1=26.28       1969KAf (89378) 205
******************************************************************************
C14H24N2O8            H4L    HMDTA           CAS 1633-00-7  (920)
1,6-Diaminohexane-N,N,N',N'-tetraethanoic acid; ((HOOC.CH2)2N.CH2.CH2.CH2)2
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Sc+++      gl  KCl    25°C 0.10M U                        1974KPd (89600) 206
                                        K(Sc+HL)=10.20
------------------------------------------------------------------------------
Sc+++      sp  oth/un 20°C  dil  U                        1971KAa (89601) 207
                                        K(Sc+HL)=9.68
------------------------------------------------------------------------------
Sc+++      sp  oth/un 20°C    ?  U                        1971KKi (89602) 208
                                        K(Sc+HL)=9.68
******************************************************************************
C16H8N3O11ClS2        H5L                      (5198)
2-(3-Chloro-2-hydroxy-5-nitrophenylazo)chromotropic acid;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Sc+++      sp  KCl    20°C 0.10M U                        1966BLa (92630) 209
                                        K(Sc+H3L=ScH2L+H)=5.6
******************************************************************************
C16H11N3O10S2         H4L    Chromotrope 2B   CAS 548-80-1  (896)
2-((4-Nitrophenyl)azo)chromotropic acid;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Sc+++      sp  oth/un 25°C    ?  U                        1964MDc (92865) 210
                                        K1eff=4.9 (pH 4.5)
******************************************************************************
C16H11N3O13AsBrS2     H6L                      (5206)
2-Bromo-7-(4-nitro-2-arsonophenylazo)chromotropic acid;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Sc+++      sp  NaCl   20°C 0.10M U                        1966BLa (92884) 211
                                        K(Sc+H3L=ScH2L+H)=5.6
******************************************************************************
C16H12N3O4ClS         H2L                      CAS 133131-00-7  (8468)
```

7-Amino-8-[(4-chlorophenyl)azo]-4-hydroxy-2-naphthalenesulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Sc+++ gl NaCl 25°C 0.10M U K1=10.31 B2=19.73 1997IHa (93118) 212
B3=28.55
Also data for the 4'-bromo-, 4'-fluoro-, 4'-nitro-, 4'-methoxy-, 4'-di-methylamino-, 4'-hydroxy-, 4'-carboxy-, 4'-AsO(OH)2-, 2'-hydroxy- analogue
****
C16H13N2O10AsS2 H5L Thorin I CAS 3688-92-4 (2609)
1-((2-Arsonophenyl)azo)-2-hydroxy-3,6-naphthalyldisulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Sc+++ sp oth/un 25°C ? U 1966SDc (93207) 213
K(?)=9
****
C16H18N4O3 HL (5162)
3-(4-Antipyrinylazo)-pentane-2,4-dione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Sc+++ sp NaClO4 ? 0.10M U 1970BSa (93856) 214
B(ScH2L2)=23.13
B(ScH4L2)=27.33
****
C16H27O3P HL CAS 52299-33-9 (8311)
Phenylphosphonic acid monodecyl ester;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Sc+++ dis NaCl RT 2.0M C 1977NAc (94698) 215
K(Sc+3HL(org)=ScL3(org)+3H)=11.4
Method: extraction from 2.0 M NaCl solution into benzene.
****
C16H35O4P HL CAS 298-07-7 (1625)
Di-(2-ethylhexyl)-phosphoric acid; (C2H5C6H12O)2P(O)OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Sc+++ dis oth/un 20°C 0.10M C 1992SNb (95515) 216
Extraction of 46Sc from 0.10 M LiNO3/HNO3 medium into 90% CFC-112/benzene
K(Sc+4HL(org)=ScL3(HL)(org)+3H)=13.9
****
C17H14N2O2 L CAS 4551-69-3 (698)
4-Benzoyl-3-methyl-1-phenyl-2-pyrazolin-5-one;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Sc+++ dis NaClO4 21°C 0.10M C I K1=7.4 B2=14.50 1978NMb (95898) 217

B3=21.2
Method: distribution of 46Sc between 0.10 M NaClO4 solution and benzene.
Data for 1.0 M NaClO4 and for distribution into isoamyl alcohol and octane
****
C18H16N2O6Br2 H3L Indoferron (5264)
2,6-Dibromoindo-3'-methyl-5'-N,N-dicarboxymethylaminomethylphenol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Sc+++ sp oth/un 25°C 0.10M U 1969SOb (97185) 218
K(Sc+H2L+HL)=10.39
****
C18H26N6 L (6628)
3,6,14,17,23,24-Hexaazatricyclo[17.3.1.1]tetracosa-1(23),8,10,12(24),19,21-hexaene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Sc+++ gl KCl 25°C 0.10M M K1=11.2 1996MBb (97722) 219
****
C19H10O5Br4S H2L Bromophenol Blu CAS 115-39-9 (2109)
3,3',5,5'-Tetrabromophenolsulfonephthalein, Bromophenol blue

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Sc+++ gl KCl 21°C 0.10M U K1=3.2 1978KYb (98986) 220
****
C19H14O7S H4L Pyrocatechol Vi CAS 369596-29-2 (709)
Pyrocatechol Violet,
3-[3,4-Dihydroxyphenyl-3-hydroxy-4-oxo-2,5-cyclohexadien-1-ylidenemethyl-b.;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Sc+++ gl NaClO4 30°C 0.20M U M K1=14.20 1978MSk (99114) 221
K(Sc(nta)+L)=10.69
****
C19H15NO8 H4L Alizarin Comp. CAS 3952-78-1 (671)
(3,4-Dihydroxy-2-anthraquinonyl-methyl)iminodiethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Sc+++ con oth/un 25°C 0.10M U K1=4.04 B2=8.39 1981EIc (99140) 222
****
C22H14O9 H5L CAS 4431-00-9 (3513)
Aurintricarboxylic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Sc+++ sp oth/un 25°C ? U 1966MSc (101506) 223
K(Sc+HL)=4.5(?)
****

C22H17AsN4O14S3 H6L Arsenazo M CAS 3563-69-7 (623)
2-(2-Arsonophenylazo)-7-(3-sulfophenylazo)-1,8-dihydroxynaphthalene-3,6-disulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	sp	NaClO4	25°C	0.1M	U		1975MBa (101551)	224	
							K(Sc+H4L)=11.24		

Room temperature

C22H18N4O14As2S2 H8L Arsenazo III CAS 1668-00-4 (1148)
2,7-Bis(2'-arsonophenylazo)chromotropic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	sp	NaClO4	25°C	1.00M	U		1975NMa (101644)	225	
							K(Sc+H5L)=10.72		

C22H20O13 H5L Carminic acid CAS 1260-17-9 (714)
Carminic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	vlt	oth/un	25°C	0.20M	U		1989LMa (101706)	226	
							B3=16.32		

Medium: 0.20M HOAc-NH4OAc, pH=4.4

C23H15O6Cl3 H3L CAS 3267-40-1 (5326)
2",5",6"-Trichloro-4'-hydroxy-3,3'-dimethylfuchson-5,5'-dicarboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	sp	alc/w	25°C	7.6%	U		K2=10.41	1969UEa (102516)	227

Medium: 7.6% v/v EtOH/H2O

C23H16O9Cl2S H4L Chrome azurol S CAS 1667-99-8 (711)
Chromazurol S;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	sp	oth/un	?	?	U	M		1973GAb (102568)	228
							K(ScOH+3phen+2H3L)=10.98		
Sc+++	sp	oth/un	?	?	U			1968BTb (102569)	229
							K(Sc+HL)=5.12		
							K(Sc+2HL)=11.94		
Sc+++	sp	oth/un	25°C	?	U			1967IHa (102570)	230
							K1eff=11.98 (pH 5.6)		

```
Sc+++      sp  oth/un 25°C    ?  U                        1967SSi (102571) 231
                                        K1eff=5.5 (pH 5.0)
********************************************************************************
C23H17N4O13AsS2       H7L                     CAS 3772-44-9  (548)
2-((2-Arsonophenyl)azo)-7-(2-carboxyphenyl)azo)-chromotropic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Sc+++      sp  NaCl   20°C 0.10M U                        1966BLa (102582) 232
                                        K(Sc+H2L=ScHL+H)=6.5
********************************************************************************
C24H23N9O2             HL                        (5330)
1,5-Bis(4-antipyrinyl)-3-cyanoformazan;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Sc+++      sp  NaClO4 25°C 0.10M U                        1971BSf (102935) 233
                                        B(ScH2L2)=52.3
********************************************************************************
C24H26N2O10           H6L                       (5331)
3,5-Bis(N,N-di(carboxymethyl)aminomethyl)-4,4'-dihydroxystilbene;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Sc+++      sp  oth/un 25°C 0.01M U                        1970TBa (102982) 234
                                        K(Sc+H4L)=9.93
********************************************************************************
C26H25NO9S            H4L    Semi-Xylenol O     (426)
3-(N,N-Di(carboxymethyl)aminomethyl)-2-cresolsulfonephthalein;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Sc+++      sp  KNO3   25°C 0.10M C        K1=19.66        1985HKa (103949) 235
Medium: 0.1 M KNO3 in chloroacetate/acetate buffer, pH 2.3.
********************************************************************************
C26H34N6O8            H4L                     CAS 132709-65-0  (8941)
3,6,14,17,23,24-Hexaazatricyclotetracosa-1,8,10,12,19,21-hexaene-3,6,14,17-tetraace
tic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Sc+++      gl  KCl    25°C 0.10M M        K1=ca. 20       1996MBb (104099) 236
                                        K(ScL+H)=5.4
                                        K(ScHL+H)=3.2
********************************************************************************
C26H38N6               L                       CAS 180684-75-7  (7295)
1,8,14,17,24,31-Hexaazatricyclo[25.3.1.1.0.0]dotriaconta-10,12,14,26,28,
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
```

Sc+++ gl KNO3 25°C 0.20M C K1=10.4 1996FJa (104209) 237
****
C30H27N3O15 H6L Enterobactin CAS 28384-96-5 (2259)
Enterobactin; cyclo-((OH)C6H3(OH).CO.NH.CH.CO.CH2)3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Sc+++ sp KCl 25°C 0.10M C 1991LRa (105196) 238
K(ScL+H)=4.67
K(ScHL+H)=3.84
K(ScH2L+H)=3.31
****
C31H32N2O13S H6L Xylenol orange CAS 63721-85-5 (432)
5,5'-Bis-N,N-bis(carboxymethyl)aminomethyl-4'-hydroxy-3,3'-dimethylfuchsone-2"-sulf
onic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Sc+++ sp oth/un ? ? U 1972CKb (105489) 239
K(Sc+H6L=ScH2L+4H)=-0.95
K(2Sc+H6L=Sc2H3L+3H)=-8.49
K(Sc(OH)+H2L=Sc(OH)HL+H)=-13.5

Sc+++ sp NaClO4 20°C 0.20M U 1966KSd (105490) 240
K(Sc+HL)=18.82
K(Sc+H2L)=12.00

Sc+++ sp NaClO4 19°C 0.10M U 1964KOc (105491) 241
K(?)=5.95

Sc+++ sp NaNO3 20?°C 0.20M U 1963BGa (105492) 242
B(Sc2L2)=61.2
****
C36H48O6 L CAS 76543-12-9 (7372)
p-tert-Butyloxacalix[3]arene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Sc+++ nmr non-aq 25°C 100% U 1997HDa (106391) 243
Keff(ScA3+H3L=ScL+3H+3A)=-15.9
Medium: DMSO; 0.2 M imidazole, pH 6.2. A=triflate. For p-chlorooxacalix[3]-
arene, Keff(ScA3+H3L=ScL+3H+3A)=-15.12
****
C37H44N2O13S H6L MeThymol Blue (428)
3,3'-Bis(N,N-di(carboxymethyl)aminomethyl)thymolsulfonephthalein;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Sc+++ sp NaClO4 20°C 0.10M U 1968ANc (106617) 244
K(Sc+H3L)=12.55

K(Sc+H2L)=16.55

****

C62H94N2O4S2 L (8109)
5,11,17,23-Tetrakis(1,1-dimethylethyl)-25-27-bis[2-methylthio)ethoxy]...calix(4)are
ne;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	cal	non-aq	25°C	100%	U	H	K1=4.46	2001NJa (107707)	245

Method: microcalorimetry. Medium: MeCN.. DH(K1)=-164 kJ mol-1

****

C76H116N4O8 L (8156)
p-tert-Butylcalix(4)arene tetradiisopropylethanoamide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	cal	non-aq	25°C	100%	U	H	K1=3.75	2001NJa (107884)	246

Method: microcalorimetry. Medium: MeCN.. DH(K1)=-101 kJ mol-1

REFERENCES

2005ATa R Aydin,N Turkel,U Ozer,; Koord.Khim.,31,62 (2005)
2005TUa N Turkel,U Ozer,; Koord.Khim.,31,229 (2005)
2001NCa J Narbutt,M Czerwinski,J Krejzler; Eur.J.Inorg.Chem.,3187 (2001)
2001NJa A D de Namor,O Jafou; J.Phys.Chem.B,105,8018 (2001)
1999NKa J Narbutt,J Krejzler; Inorg.Chim.Acta,286,175 (1999)
1997HDa P Hampton,C Daitch,A Shachter; Inorg.Chem.,36,2956 (1997)
1997IHa Y Issa,W Hegazy; J.Indian Chem.Soc.,74,542 (1997)
1997YSa A Yuchi,T Sato et al; Anal.Chem.(USA),69,2941 (1997)
1996FJa P Fitzsimmons,S Jackels; Inorg.Chim.Acta,246,301 (1996)
1996MBb L Miao,D Bell,G Rothremel,S Jackels; Supramol.Chem.,6,365 (1996)
1994NSc O Navratil,P Sladek; Coll.Czech.Chem.Comm.,59,287 (1994)
1992FIa F Firsching; J.Chem.Eng.Data,37,497 (1992)
1992LHa M Lundeen,Z Hugus; Thermochim.Acta,196,93 (1992)
1992SNb P Sladek,O Navratil,P Linhart; Coll.Czech.Chem.Comm.,57,1648 (1992)
1992SNc P Sladek,O Navratil,P Linhart; Coll.Czech.Chem.Comm.,57,1639 (1992)
1991LRa L Loomis,K Raymond; Inorg.Chem.,30,906 (1991)
1991SKb K Sawada,M Kuribayashi,T Suzuki,Miyamoto; J.Solution Chem.,20,829 (1991)
1990WZa Wang Xiaoping,Zhang Zuxun; Chem.J.of Chin.Univ.,11,942 (1990)
1989LMa Li Nanqiang,Min Jing; Anal.Chem.(China),346 (1989)
1989NZa A Novikov,T Zakrevskaya; Radiokhim.,31,64 (1989)
1989SBb E Samokhvalova,A Borisova et al; Zh.Neorg.Khim.,34,2538 (1989)
1988YSa I Yoshida,F Sagara,and K Ueno; Bull.Chem.Soc.Jpn.,61,2639 (1988)
1987SKc N Suzuki,J Kodera,H Imura; Inorg.Chim.Acta,128,261 (1987)
1987YHa A Yuchi,H Hotta,H Wada,G Nakagawa; Bull.Chem.Soc.Jpn.,60,1379 (1987)
1986FMa F Firsching,J Mohammadzadel; J.Chem.Eng.Data,31,40 (1986)
1986HMa F Hirsching,J Mohammadzadei; J.Chem.Eng.Data,31,40 (1986)
1986SKb N Skorik,A Kochmaneuk,O Voronkova; Zh.Neorg.Khim.,31,1137(646) (1986)
1985HKa M Hafez,I Kenawy,M Kabil; Anal.Lett.,18,2043 (1985)
1985MMa F Mulla,F Marsicano,B Nakani et al; Inorg.Chem.,24,3076 (1985)

1985SAa N Skorik,A Artish; Zh.Neorg.Khim.,30,1994(1130) (1985)
1984IIa H Ito,Y Ikegami,Y Suzuki; Bull.Chem.Soc.Jpn.,57,3426 (1984)
1984IIb H Itoh,N Itoh,Y Suzuki; Bull.Chem.Soc.Jpn.,57,716 (1984)
1983BEa P Brown,J Ellis,R Silva; J.Chem.Soc.,Dalton Trans.,35 (1983)
1982GJa Gao Xiaoxia,Jiao Kui; Acta Chimica Sinica,611 (1982)
1981EIc S Etaiw,R Issa,N El-Assy; J.Inorg.Nucl.Chem.,43,303 (1981)
1981FCa F Firsching,R Cuca; J.Chem.Eng.Data,26,116 (1981)
1981HIa A Hammam,S Ibrahim; Indian J.Chem.,20A,100 (1981)
1980DGa Y Davydov,G Glazacheva; Zh.Neorg.Khim.,25,1462(812) (1980)
1980HMa R Hancock,F Marsicano,E Rudolph; J.Coord.Chem.,10,223 (1980)
1980SKc N Skorik,A Kovaleva; Zh.Neorg.Khim.,25,2971(1633) (1980)
1979FKc V Fadeeva,S Kochetkova; Zh.Neorg.Khim.,24,2122(1175) (1979)
1978GMb L Gnutova,R Maier et al; Zh.Neorg.Khim.,23,1501(827) (1978)
1978KYb V Kumok; Zh.Neorg.Khim.,23,1792(988) (1978)
1978MSk S Makhijani,S Sangal; J.Indian Chem.Soc.,55,987 (1978)
1978MSl S Makhijani,S Sangal; J.Indian Chem.Soc.,55,840 (1978)
1978NMb O Navratil,A Malach; Coll.Czech.Chem.Comm.,43,2890 (1978)
1978THc M Thompson; Anal.Chim.Acta,98,357 (1978)
1977MSf S Makhijani,S Sangal; J.Indian Chem.Soc.,54,670 (1977)
1977NAc O Navratil; Collec.Czech.Chem.Commun.,42,2778 (1977)
1977SKd N Skorik; Zh.Neorg.Khim.,22,1425(776) (1977)
1976DEa I Dellien; Acta Chem.Scand.,A30,576 (1976)
1976TRa S Tobia,E Rizkalla; J.Chem.Soc.,Dalton Trans.,569 (1976)
1975KAb V Kornev,O Artemeva,H Laptev; Zh.Fiz.Khim.,49,111 (1975)
1975MBa A Men'kov,R Bocharova; Zh.Neorg.Khim.20,336 (1975)
1975NMa N Nepomnyaschaya,A Menkov,A Lensky; Zh.Neorg.Khim.,20,1810(1010) (1975)
1975POa J Podlahova; Collec.Czech.Chem.Commun.,40,3306 (1975)
1974FGc L Filatova,G Galochkina; Radiokhim.,16,601(E:591) (1974)
1974KPd N Kurkina,N Petrova,N Skorik; Zh.Neorg.Khim.,19,661(358) (1974)
1973CSd E Chubakova,N Skorik; Zh.Neorg.Khim.,18,2723 (1973)
1973GAb L Ganago,L Alinovskaya; Zh.Anal.Khim.,28,3,494 (1973)
1973LSa L Lisovaya,N Skorik; Zh.Neorg.Khim.,18,4,1134 (1973)
1973SCd H Steger,A Corsini; J.Inorg.Nucl.Chem.,35,1621 (1973)
1972CKb A Cherkasov,M Karabiyants,N Alykov; Zh.Anal.Khim.,27,10,1945 (1972)
1972GDb M Gupta,H Das,S Shome; J.Inorg.Nucl.Chem.,34,350 (1972)
1972GGa I Grenthe,G Gardhammar; Acta Chem.Scand.,26,3207 (1972)
1972GKc R Guseva,V Kumok; Zh.Neorg.Khim.,17,12,3195 (1972)
1972KBb V Kornev,I Babina,V Vekshin; Zh.Anal.Khim.,27,3,597 (1972)
1972MHa D Morris,F Haynes,P Lewis,E Short; Electrochim.Acta,17,2017 (1972)
1972USa L Usherenko,N Skorik; Zh.Neorg.Khim.,17,2918(E:1533) (1972)
1971AOa S Akalin,U Ozer; J.Inorg.Nucl.Chem.,33,4171 (1971)
1971BSf B Budesinsky,J Svec; Inorg.Chem.,10,313 (1971)
1971EKa V Egorova,V Kumok; Zh.Obshch.Khim.,4,8,1786 (1971)
1971FNb L Filatova,S Novichkova; Trudy IREA,33,41 (1971)
1971GAa G Gardhammar; Acta Chem.Scand.,25,158 (1971)
1971KAa B Karadakov,A Aleksieva,D Venkova et al;
God.Vissh.Khim.Inst.(Sofia),18,125;185 (1971)
1971KKi V Kornev,M Konyukhov; Zh.Fiz.Khim.,45,10,2507 (1971)
1971KPb L Komissarova,N Prutkova et al; Zh.Neorg.Khim.,16,1798(E:954) (1971)
1971MAa G Manku; Australian J.Chem.,24,925 (1971)

1971SCc F Smirous,J Celeda,M Palek; Collec.Czech.Chem.Commun.,36,3891 (1971)
1971UKa L Usherenko,N Kulikova,N Skorik et al; Zh.Neorg.Khim.,16,11,3230 (1971)
1970ALc A Aziz,S Lyle; J.Inorg.Nucl.Chem.,32,2383 (1970)
1970BSa B Budesinsky,J Svecova; Anal.Chim.Acta,49,231 (1970)
1970IEb B Ivanov-Emin,A Egorov et al; Zh.Neorg.Khim.,15,1224(E:628) (1970)
1970LSe B Laskorin,V Smirnov,B Nikonov; Zh.Neorg.Khim.,15,3310(E:1724) (1970)
1970SGb T Sas,V Gagarina et al; Zh.Neorg.Khim.,15,1255(E:644) (1970)
1970TBa V Temkina,E Bozhevolnov et al; Zh.Anal.Khim.,25,5,894 (1970)
1970VMa G Varlamova,N Mitrofanova et al; Zh.Neorg.Khim.,15,5,1239 (1970)
1969ALa A Aziz,S Lyle; Anal.Chim.Acta,47,49 (1969)
1969ALd A Aziz,S Lyle; J.Inorg.Nucl.Chem.,31,3471 (1969)
1969ANb V Antonovich,V Nazarenko; Zh.Anal.Khim.,24,5,676 (1969)
1969CRa D Cole,L Rich,J Owen et al; Inorg.Chem.,8,682 (1969)
1969GHa I Grenthe,E Hansson; Acta Chem.Scand.,23,611 (1969)
1969IEa R Izatt,D Eatough,J Christensen et al; J.Chem.Soc.(A),45;47 (1969)
1969KAf V Krumina,K Astakhov,S Barkov; Zh.Fiz.Khim.,43,611;1196;2792 (1969)
1969MGc A Merbach,F Gnagi; Chimia,23,271 (1969)
1969PSc L Poskrebysheva,N Skorik,V Serebrennikov; Radiokhim.,11,1,113 (1969)
1969SOb T Shimizu,K Ogami; Talanta,16,1527 (1969)
1969UEa K Uesugi; Bull.Chem.Soc.Jpn.,42,2398 (1969)
1968ANc V Antonovich,V Nazarenko; Zh.Anal.Khim.,23,11,1460 (1968)
1968ANe V Antonovich,V Nazarenko; Zh.Neorg.Khim.,13,1805 (1968)
1968BTb E Beschetnova,O Tataev; Sbornik.soobsch Dag.Univ.,Khim.,9,15 (1968)
1968URa Z Urner; Collec.Czech.Chem.Commun.,33,1078 (1968)
1968ZSb Y Zolotov,N Shakhova,I Alimarin; Zh.Anal.Khim.,23,9,1321 (1968)
1967APa E Appelman; Inorg.Chem.,6,1268 (1967)
1967BAc E Bottari,G Anderegg; Helv.Chim.Acta,50,2349 (1967)
1967EMb A Elkhilyali,L Martynenko,V Spitsyn; Proc.Acad.Sci.(USSR),176,886 (855)
(1967)
1967IHa R Ishida,N Hasegawa; Bull.Chem.Soc.Jpn.,40,1153 (1967)
1967KIa I Kolosov,B Ivanov-Emin et al; Radiokhim.,9,473 (1967)
1967NPb G Nickless,F Pollard,T Samuelson; Anal.Chim.Acta,39,37 (1967)
1967SKe N Skorik,V Kumok,V Serebrennikov; Zh.Neorg.Khim.,12,1429(2711);1788(3381
(1967)
1967SSi S Sinha,S Sangal,A Dey; J.Indian Chem.Soc.,44,203 (1967)
1966AVa J Aveston; J.Chem.Soc.(A),1599 (1966)
1966BAa T Belyavskaya,I Alimarin,G Brykina; Vestnik Moskov Univ.,21,84 (1966)
1966BAe T Belyavskaya,I Alimarin,G Brykina; Vestnik Moskov Univ.,1,84 (1966)
1966BLa A Busev,G Lunina,N Basargin; Zh.Anal.Khim.,21,12,1414 (1966)
1966JMc V Jokl,J Majer,H Scharff,H Kroll; Mikrochim.Acta,63 (1966)
1966KSd V Kumok,V Serebrennikov; Zh.Neorg.Khim.,11,47 (90) (1966)
1966KZa I Koreman,N Zaglyadimova; Zh.Neorg.Khim.,11,12,2774 (1966)
1966KZc I Korenman,N Zaglyadimova; Zh.Neorg.Khim.,11,1491 (2774) (1966)
1966MSc K Munshi,S Sangal,A Dey; J.Indian Chem.Soc.,43,115 (1966)
1966SDc S Sangal,A Dey; J.Indian Chem.Soc.,43,440 (1966)
1966SHa T Sekine,Y Hasegawa; Bull.Chem.Soc.Jpn.,39,240 (1966)
1966SKa T Sekine,A Koizumi,M Sakairi; Bull.Chem.Soc.Jpn.,39,2681 (1966)
1965ABb I Alimarin,T Belyavskaya,G Brykina; Vestnik Moskov Univ.,5,69 (1965)
1965GEa G Geier; Ber.Buns.Phys.Chem.,69,617 (1965)
1965SAg A Samodelov; Zh.Neorg.Khim.,10,2180 (1965)

1965TAa A Tateda; Bull.Chem.Soc.Jpn.,38,165 (1965)
1964KOc O Konkova; Zh.Anal.Khim.,19,63 (73) (1964)
1964KSe V Kumok,V Serebrennikov; Zh.Neorg.Khim.,9,2148 (1964)
1964MDc K Munshi,A Dey; J.Inorg.Nucl.Chem.,26,1603 (1964)
1964MRa D Morris,G Reed,K Sutton; J.Inorg.Nucl.Chem.,26,1461 (1964)
1964RSc G Reed,K Sutton,D Morris; J.Inorg.Nucl.Chem.,26,1227 (1964)
1964SAc A Samodelov; Radiokhim.,6,568 (1964)
1963AKb N Akselrud; Uzbeksk.Khim.Zh.,32,800 (1963)
1963BGa B Budesinsky,J Gurovic; Collec.Czech.Chem.Commun.,28,1154;1858 (1963)
1963HOc Z Holzbecher; Collec.Czech.Chem.Commun.,28,716 (1963)
1963SCb P Schindler; Chimia,17,313 (1963)
1963STc J Stary; Anal.Chim.Acta,28,132 (1963)
1962PAb A Paul; J.Phys.Chem.,66,1248 (1962)
1962SHa L Sommer,M Hnilickova; Anal.Chim.Acta,27,241 (1962)
1962SOa D Solokov; Trudy po Khim.Tekh.,1,55;CA'63,1,8453a (1962)
1961AKa N Akselrud; Ukr.Khim.Zh.,27,431 (1961)
1959KPa J Kury,A Paul,L Hepler,R Connick; J.Am.Chem.Soc.,81,4185 (1959)
1957NOa W Noddak,G Oertel; Z.Elektrochem.,61,1216 (1957)
1955IFa R Izatt,W Fernelius,C Haas,B Block; J.Phys.Chem.,59,170 (1955)
1955PAa A Paul; Thesis,Univ.California,Berkeley,UCRL-292 (1955)
1954KPa M Kilpatrick,L Pokras; J.Electrochem.Soc.,101,39 (1954)
1954SGa G Schwarzenbach,R Gut,G Anderegg; Helv.Chim.Acta,37,937 (1954)
1953KPc M Kilpatrick,L Pokras; J.Electrochem.Soc.,100,85 (1953)
1952LAb W Latimer; "Oxidation Potentials",Prentice Hall,NY (1952)
1938OKa Y Oka; J.Chem.Soc.Jpn.,59,971 (1938)

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

END