

## 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)

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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

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

Arsenate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	sol	none	25°C	0.0	C			1992FIa	(1159) 2

Kso(ScAsO4)=-26.72

Equilibrium monitored by EDTA and iodine titrations.

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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

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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)

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

Carbonate;

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	sol	NaNO3	25°C	1.00M	U		B3=16.62	1989NZa (3367)	6

Sc+++	sol	none	25°C	0.0	C		Kso(Sc2(CO3)3)=-35.77	1986FMa (3368)	7
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Sc+++	sol	none	25°C	0.0	C		Kso(Sc2(CO3)3)=-35.77	1986HMa (3369)	8
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Method: spectrophotometry.

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

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

Method: ionophoresis

Sc+++	ix	NaClO4	25°C	4.0M	U		K1=-0.12 B2=-0.84 B3=-1.40	1966SHa (5690)	10
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Sc+++	ix	NaClO4	20°C	1.0M	U		K1=-0.80 B3=0.16	1965ABb (5691)	11
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Sc+++	ix	NaClO4	20°C	.691M	U		K1=0.04 B2=-0.11	1964RSc (5692)	12
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Sc+++	ix	NaClO4	?	2.50M	U		K1=0.14 B2=0.54	1964SAC (5693)	13
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Sc+++	ix	NaClO4	?	10.0M	U		B4=-1.88	1964SAC (5694)	14
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Sc+++	dis	NaClO4	?	6.0M	U		K1=1.45 B2=0.70 B3=-0.22 B4=-0.37 Kd(H+Sc+4Cl+2TBP(in TBP))=0.08	1964SAC (5695)	15
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Sc+++	EMF	NaClO4	25°C	0.50M	U	TIH	K1=1.07 B2=2.11 K1=1.45(15 C), 1.00(35 C), 1.11(15 C), 0.91(35 C). DH(K1)=-6.3 kJ mol <sup>-1</sup> , DS=0; DH(K2)=-7.1, DS=-4 J K <sup>-1</sup> mol <sup>-1</sup> . I=0 corr.: K1=1.95, K2=1.57	1962PAb (5696)	16
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Sc+++	sol	NaClO4	25°C	0.50M	U		K1=-0.24	1962SOa (5697)	17
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Sc+++	gl	none	25°C	0.0	U		Kso(Sc(OH)2Cl)=-21.66 Kso(Sc(OH)2.5Cl0.5)=-26.17	1961AKa (5698)	18
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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)										

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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	1964SAc (6376)	20
B3=0.10 B4=-0.96 Kd(H+Sc+4L+4TBP(org))=0.70 Kd(Sc+3L+3TBP(org))=-9.19										

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Sc+++	cal	NaClO4	25°C	0.50M	C	H			1992LHa (7146)	21
DH(K1)=-9.02 kJ mol <sup>-1</sup> , DS(K1)=59.4 J K <sup>-1</sup> mol <sup>-1</sup> ; DH(K2)=-18.46, DH(K3)=-14.50, DH(K4)=-49.70.										
Sc+++	ISE	KNO3	25°C	0.10M	C	M		K1=6.22 B2=11.52	1987YHa (7147)	22
K3=3.95 K(ScA+F)=3.90(H3A=NTA), 3.62(H3A=HEDTA), 1.9(H4A=EDTA), 2.5(H4A=CDTA)										
Sc+++	ISE	NaClO4	25°C	0.50M	U			K1=6.18 B2=11.52	1980HMa (7148)	23
B3=15.8 B(Sc2L3)=19.0										
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.										
Sc+++	ISE	NaClO4	25°C	0.50M	U			K1=6.22 B2=11.33	1969ALa (7150)	25
B3=15.23										
Sc+++	dis	NaClO4	25°C	0.50M	U			K1=6.17 B2=11.44	1969ALd (7151)	26
B3=15.46 B4=18.49										
Sc+++	EMF	NaClO4	25°C	0.50M	U	H			1967APa (7152)	27
DH(K1)=2.5 kJ mol <sup>-1</sup> , DS=125 J K <sup>-1</sup> mol <sup>-1</sup>										

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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
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Mo12042U----- H8L (2922)
Uranium-12-molybdate;
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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
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NH3          L Ammonia          CAS 7664-41-7 (414)
Ammonia
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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
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NO3-        HL Nitrate          CAS 7697-37-2 (288)
Nitrate;
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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
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Sc+++      ix NaClO4 25°C 4.0M U      K1=0.28 B2=-0.28 1966SHa (9914) 34
Medium: HClO4
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Sc+++      dis oth/un ? 5.0M U      1965SAg (9915) 35
          Kd(Sc+3L+3T(TBP))=2.6
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Sc+++      ix NaClO4      2.50M U      K1=0.55 B2=0.08 1964SAc (9916) 36

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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

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Sc+++      gl  NaCl04 25°C 1.00M U                               1966AVa (12114) 47
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\*B(2,2)=-6.14  
\*B(3,4)=-13.00  
\*B(3,5)=-17.47  
\*K1=-5.11

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Sc+++      sol none      25°C  0.0  M                               1963AKb (12115)  48
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$$K_{SO} = -29.70$$

Sc+++ sol NaClO4 25°C 1.00M U 1963SCb (12116) 49

\*K<sub>SO</sub>=10.5

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Sc+++      gl  none   25°C  0.0  U                               1961AKa (12117)  50
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$$K_{so}(\text{Sc}(\text{OH})_3) = -29.70$$

Sc+++ EMF NaCl04 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+2H<sub>2</sub>O=Sc<sub>2</sub>(OH)<sub>2</sub>+2H). In 0.1 M NaClO<sub>4</sub> \*K<sub>1</sub>=-4.74,\*B(2,2)=-5.67,  
K(Sc<sub>2</sub>(OH)<sub>2</sub>)=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):  $K(2Sc+2H_2O=Sc_2(OH)_2+2H)$ . Method: quinhydrone electrode

Sc+++ gl oth/un 25°C dil U 19380Ka (12120) 53

$$K_{so}(\text{Sc}(\text{OH})_3) = -30.1$$

Method: also solubility

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P04---	H3L	Phosphate	CAS 7664-38-2	(176)
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Phosphate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Sc+++      ix  R4N.X      ?  0.20M U      1974FGc (13320)  54
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$$K(2Sc + H_3L = Sc_2HL + 2H) = 3.53$$

Sc+++	oth	oth/un	?	?	U	1971FNb (13321)	55
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$$K(S_c + H_L) = 0.15$$

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Sc+++      ix  NaClO4 25°C 0.60M U  I      1970LSe (13322) 56
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$$K(S_c + H_2L) = 3.76$$

At  $\theta$  corr,  $K=4.72$

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

Thiocyanate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Sc+++	oth	NaClO4	20°C	0.10M	U	I T	K1=1.87	1970SGb (15251)	57
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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
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Medium: HClO4. K1=0.7 to 1.0(I=3.65)

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Sc+++	cal	oth/un	25°C	0.0	U	H	K1=4.04 B2=5.70	1969IEa (16531)	59
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DH(K1)=26.4 kJ mol<sup>-1</sup>, DH(K2)=16.6. DS(K1)=165.5 J K<sup>-1</sup> mol<sup>-1</sup>, DS(K2)=87.8

Sc+++	ix	NaClO4	25°C	0.50M	U		K1=2.59 B2=3.96	1967KIa (16532)	60
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Sc+++	ix	NaClO4	20°C	1.0M	U		K1=2.57 *K1=1.49	1966BAe (16533)	61
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Medium: HClO4

Sc+++	ix	NaClO4	25°C	0.50M	U		K1=1.66 B2=3.04 B3=4.0	1965TAa (16534)	62
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Sc+++	ix	NaClO4	?	2.50M	U		K1=0.62 B2=1.50	1964SAc (16535)	63
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Se04--		H2L	Selenate				CAS 7783-08-6	(459)	
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Selenate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Sc+++	ix	NaClO4	45°C	0.50M	U	T H	K1=1.68 B2=3.33	1967KIa (17109)	64
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K1=1.78(25 C), 1.75(35 C); B2=2.64(25 C), 3.15(35 C).  
DH(K1)=-9.6 kJ mol<sup>-1</sup>, DS=2 J K<sup>-1</sup> mol<sup>-1</sup>; DH(B2)=163.9, DS=530

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C2H2O4		H2L	Oxalic acid				CAS 144-62-7	(24)	
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Ethanedioic acid; (COOH)<sub>2</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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Sc+++	gl	NaClO4	20°C	0.10M	U		K1=8.12	1985SAa (19051)	65
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Sc+++	gl	oth/un	25°C	0.05M	U		K1=8.74	1973CSd (19052)	66
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Sc+++	ISE	oth/un	25°C	0.05M	U		K1=9.31	1973CSd (19053)	67
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Sc+++	gl	oth/un	25°C	0.05M	U			1973CSd (19054)	68
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K(Sc+HL)=7.36





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<sup>-1</sup>,  
DS(K1)=42.0 J K<sup>-1</sup> mol<sup>-1</sup>.

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

C3H12N09P3 H6L NTPA CAS 6419-19-8 (2920)

Nitrilotris(methylenephosphonic acid); N(CH2PO3H2)3

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

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

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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

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

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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

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

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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

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

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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

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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

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Sc+++	sp	KNO3	19°C	0.01M	U		K1=6.20	1966KZc (31348)	95
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Medium: HNO3

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Sc+++	dis	NaClO4	20°C	0.10M	U		B2=12.5	1963STc (31349)	96
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\*\*\*\*\*

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	NaCl04	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	NaCl04	25°C	1.00M	U		K1=9.85 B2=16.06	1972GGa (32355)	101
							B(ScHL)=11.59		
							B(ScH2L)=13.5		

\*\*\*\*\*

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	NaCl04	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<sup>-1</sup>,  
DS(K1)=-217 J K<sup>-1</sup> mol<sup>-1</sup>.

\*\*\*\*\*

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<sup>-1</sup>,  
DS(K1)=-292 J K<sup>-1</sup> mol<sup>-1</sup>.

\*\*\*\*\*

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 K3=5.01	1987SKc (38072)	107

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,  $DH(K1) = -388 \text{ kJ mol}^{-1}$ ,  
 $DS(K1) = -1154 \text{ J K}^{-1} \text{ mol}^{-1}$ .

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

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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 K(Sc(nta)+L)=10.56	1978MSk (43977)	125
*****									
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 K(Sc+HL)=8.94	1972GKc (44489)	128
Sc+++	gl	KNO3	25°C	0.10M	U		K1=18.07 K(ScL+H)=1.92 K(ScLOH+H)=6.10	1971AOa (44490)	129
*****									
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		B(ScH-1L)=5.62 K(Sc+H-1L)=21.52	1985SAa (46247)	130
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	NaCl04	25°C	0.10M	U	T	K1=12.7		1967SKe (47008)	133
Sc+++	dis	NaCl04	20°C	0.10M	U	T	B2=24.1		1963STc (47009)	134
Sc+++	vlt	KN03	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	KN03	25°C	0.10M	U		K1=5.25	B2=8.75	1984IIa (48085)	136
Sc+++	sp	KN03	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	NaN03	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	KN03	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<sup>-1</sup>,  
DS(K1)=257 J K<sup>-1</sup> mol<sup>-1</sup>.

\*\*\*\*\*

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	NaN03	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.

-----  
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/H<sub>2</sub>O, 0.25 M NaClO<sub>4</sub>

\*\*\*\*\*

C7H6O4 H3L CAS 303-38-8 (1398)

2,3-Dihydroxybenzoic acid; C<sub>6</sub>H<sub>3</sub>(OH)<sub>2</sub>.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+H<sub>2</sub>L)=23.03

\*\*\*\*\*

C7H6O4 H3L Protocatechuic CAS 99-50-3 (875)

3,4-Dihydroxybenzoic acid; C<sub>6</sub>H<sub>3</sub>(OH)<sub>2</sub>.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+H<sub>2</sub>L)=19.71

\*\*\*\*\*

C7H6O5 H4L Gallic acid CAS 149-91-7 (446)

3,4,5-Trihydroxybenzoic acid; C<sub>6</sub>H<sub>2</sub>(OH)<sub>3</sub>.COOH

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

-----  
Sc+++ gl NaClO<sub>4</sub> 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; HO<sub>3</sub>S.C<sub>6</sub>H<sub>3</sub>(OH).COOH

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

-----  
Sc+++ gl NaClO<sub>4</sub> 20°C 0.10M U K1=11.23 1985SAa (55043) 152

-----  
Sc+++ sp KNO<sub>3</sub> 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/H<sub>2</sub>O. Constants refer to equilibria in H<sub>2</sub>O.

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

Sc+++      sp    KN03    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

Sc+++      dis NaCl04 25°C 0.10M U      K1=6.34    B2=11.76    1968ZSb (58674) 156  
B3=19.26

C8H8N2O2                      H2L                      (3821)  
1-(2'-Hydroxyphenyl)-4-oxo-2,3-diazabut-1-ene;

Sc+++      sp   alc/w   19°C   28%   U      1963H0c (59325) 158  
K(?)=4.88

C8H8N2O3                      H3L                      (3822)  
1-(2',4'-Dihydroxyphenyl)-4-oxo-2,3-diazabut-1-ene;

Sc+++      sp   alc/w   19°C   28%   U      1963H0c (59348) 159  
K(?)=4.72

C8H8O3	HL	Mandelic Acid	CAS 611-72-3	(80)
2-Phenyl-2-hydroxyethanoic acid; $\text{C}_6\text{H}_5.\text{CH}(\text{OH}).\text{COOH}$				

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<sup>-1</sup>,  
DS(K1)=74.2 J K<sup>-1</sup> mol<sup>-1</sup>.

C8H8O4                      H3L                      CAS 102-32-9    (1826)

3,4-Dihydroxyphenylethanoic acid; C<sub>6</sub>H<sub>3</sub>(OH)<sub>2</sub>.CH<sub>2</sub>COOH

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

Sc+++	gl	KCl	25°C	0.10M	U			K <sub>1</sub> =18.16 K(Sc+L+H <sub>2</sub> L)=21.75	2005TUa (60070)	162
-------	----	-----	------	-------	---	--	--	---	-----------------	-----

\*\*\*\*\*

C <sub>8</sub> H <sub>8</sub> O <sub>4</sub>		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			K <sub>1</sub> =5.07 B <sub>2</sub> =9.56	1971MAa (60096)	163
-------	----	--------	------	-----	---	--	--	--	-----------------	-----

Medium: 50% dioxan, 0.1 M NaClO<sub>4</sub>

\*\*\*\*\*

C <sub>8</sub> H <sub>9</sub> N <sub>0</sub> O <sub>4</sub>		H <sub>2</sub> L						(4520)		
---	--	------------------	--	--	--	--	--	--------	--	--

Dehydroethanoic acid oxime;

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

Sc+++	gl	diox/w	35°C	50%	U			K(Sc+HL)=4.68 K(Sc+2HL)=8.65	1971MAa (60502)	164
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Medium: 50% dioxan, 0.1 M NaClO<sub>4</sub>

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C <sub>8</sub> H <sub>13</sub> N <sub>0</sub> O <sub>6</sub> S		H <sub>3</sub> L						(5675)		
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2-Mercapto-1-aminoethane-N,N,S-triethanoic acid; H<sub>0</sub>OC.CH<sub>2</sub>.S.CH<sub>2</sub>.CH<sub>2</sub>.N(CH<sub>2</sub>COOH)<sub>2</sub>

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
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Sc+++	gl	NaClO <sub>4</sub>	25°C	0.10M	U			K <sub>1</sub> =11.51 K(Sc+HL)=2.94	1975POa (61831)	165
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C <sub>8</sub> H <sub>19</sub> O <sub>4</sub> P		HL						CAS 107-66-4	(2130)	
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Dibutylphosphoric acid; (C<sub>4</sub>H<sub>9</sub>O)<sub>2</sub>P(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))=ScL<sub>3</sub>(HL)(org)+3H)=18.6. Method: extraction of 46Sc from HNO<sub>3</sub> solution into CFC-112.

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C <sub>9</sub> H <sub>6</sub> NOCl		HL						CAS 130-16-5	(1268)	
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5-Chloro-8-hydroxyquinoline;

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

Sc+++	gl	diox/w	25°C	60%	U			B <sub>3</sub> =28.41	1973SCd (63665)	167
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Medium: 60% dioxan, 0.1 M NaClO<sub>4</sub>

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

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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

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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
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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  
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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		K(?)=4.59	1963H0c (65239)	176

Medium: 28% EtOH, 0.025 M acetate buffer

\*\*\*\*\*

C9H10N2O3	H3L	(4636)
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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)
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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 K(Sc(edta)+L)=7.22	1978MSl (69859)	178

\*\*\*\*\*

C10H9NO	HL	CAS 5541-67-3	(999)
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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 B3=28.3	1978THc (70067)	179

\*\*\*\*\*

C10H10O2	HL	Benzoylacetone	CAS 93-91-4 (197)
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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
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Sc+++	gl	KNO3	25°C	0.10M	U	M	K(ScL+A)=8.47 K(ScL+B)=8.33	1972KBb (74137)	183
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K(ScL+C)=8.14

H4A=4,5-dihydroxybenzene-1,3-disulphonic acid  
H3B=2,3-dihydroxynaphthalene-6-sulphonic acid, H2C=pyrocatechol

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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

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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;

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	gl	diox/w	25°C	60%	U		B3=26.43	1973SCd (77333)	189

Medium: 60% dioxan, 0.1 M NaClO4

\*\*\*\*\*

C11H9NO4      H2L      CAS 4321-82-7 (4829)  
3-Acetyl-4-hydroxycoumarin oxime;

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Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Sc+++	gl	diox/w	35°C	50%	U		K(Sc+HL)=3.92 K(Sc+2HL)=7.04	1971MAa (77427)	190

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			K(Sc+HL)=6.25	1971EKa (77577)	191
Sc+++	sp	oth/un	20°C	?	U			K(Sc+HL)=12.8	1962SHa (77578)	192
*****										
C12H9N2O3Cl		H3L						CAS 76260-35-0 (4950)		
5-Chloro-2,2',4'-trihydroxyazobenzene; (Cl)(HO)C6H3.N:N.C6H4(OH)2										
*****										
Sc+++	sp	NaCl04	20°C	0.10M	U			K(Sc+HL)=11.42	1969ANb (80600)	193
*****										
C12H9N2O5BrS		H3L						CAS 35495-38-6 (4966)		
1-(3'-Bromo-4',5'-dihydroxyphenyl)azobenzene-4-sulfonic acid;										
*****										
Sc+++	sp	NaCl	20°C	0.10M	U			K(Sc+H2L=ScHL+H)=5.4	1966BLa (80609)	194
*****										
C12H9N2O5ClS		H3L						CAS 26351-56-4 (4964)		
1-(3'-Chloro-4',5'-dihydroxyphenyl)azobenzene-4-sulfonic acid;										
*****										
Sc+++	sp	NaCl	20°C	0.10M	U			K(Sc+H2L=ScHL+H)=6.4	1966BLa (80610)	195
*****										
C12H9N2O6ClS		H4L						CAS 4386-25-8 (4967)		
5-Chloro-2-hydroxy-1-(2',4'-dihydroxyphenylazo)-3-sulfo benzene;										
*****										
Sc+++	sp	NaCl04	20°C	0.10M	U			K(Sc+HL)=6.35 K(ScOH+2H2L)=12.14	1969ANb (80613)	196
*****										
C12H10N2O3		H3L						CAS 69323-27-9 (3971)		
2,2',4'-Trihydroxyazobenzene; HO.C6H4.N:N.C6H3(OH)2										
*****										
Sc+++	sp	NaCl04	20°C	0.10M	U			K(Sc+HL)=11.41	1969ANb (80722)	197
*****										
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; ((HOOCH2)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
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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 B3=28.55	1997IHa (93118)	212

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-naphthalylldisulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Sc+++	sp	oth/un	25°C	?	U			K(?)=9	1966SDc (93207)	213

\*\*\*\*\*  
C16H18N4O3 HL (5162)  
3-(4-Antipyrinylazo)-pentane-2,4-dione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Sc+++	sp	NaCl04	?	0.10M	U			B(ScH2L2)=23.13 B(ScH4L2)=27.33	1970BSa (93856)	214

\*\*\*\*\*  
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	NaCl04	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		K(Sc+H2L+HL)=10.39	1969S0b (97185)	218

\*\*\*\*\*

C18H26N6                                      L                                      (6628)  
3,6,14,17,23,24-Hexaazatricyclo[17.3.1.1]tetracos-1(23),8,10,12(24),19,21-hexaene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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 K(Sc(NTA)+L)=10.69	1978MSk (99114)	221

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C19H15N08                                      H4L      Alizarin Comp.      CAS 3952-78-1 (671)  
(3,4-Dihydroxy-2-anthraquinonyl-methyl)iminodiethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
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		K(Sc+HL)=4.5(?)	1966MSc (101506)	223

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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 azuro1 S      CAS 1667-99-8 (711)  
Chromazuro1 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)		

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

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

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C31H32N2O13S H6L Xylenol orange CAS 63721-85-5 (432)  
5,5'-Bis-N,N-bis(carboxymethyl)aminomethyl-4'-hydroxy-3,3'-dimethylfuchsone-2"-sulfonic acid;

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

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Sc+++ sp NaCl04 20°C 0.20M U 1966KSd (105490) 240  
K(Sc+HL)=18.82  
K(Sc+H2L)=12.00

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Sc+++ sp NaCl04 19°C 0.10M U 1964K0c (105491) 241  
K(?)=5.95

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Sc+++ sp NaNO3 20?°C 0.20M U 1963BGa (105492) 242  
B(Sc2L2)=61.2

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C36H48O6 L CAS 76543-12-9 (7372)  
p-tert-Butyloxacalix[3]arene;

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

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C37H44N2O13S H6L MeThymol Blue (428)  
3,3'-Bis(N,N-di(carboxymethyl)aminomethyl)thymolsulfonephthalein;

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Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo  
-----  
Sc+++ sp NaCl04 20°C 0.10M U 1968ANc (106617) 244  
K(Sc+H3L)=12.55

$$K(\text{Sc}+\text{H}_2\text{L})=16.55$$

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C62H94N2O4S2 L (8109)  
5,11,17,23-Tetrakis(1,1-dimethylethyl)-25-27-bis[2-methylthio]ethoxy]...calix(4)arene;  
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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 <sup>-1</sup>									

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C76H116N4O8 L (8156)  
p-tert-Butylcalix(4)arene tetradiisopropylethanoamide;  
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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 <sup>-1</sup>									

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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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