SC-Database
Software version = 5.81 Data version = 4.62
Experiment list contains 600 experiments for
 (no ligands specified)
 2 metals : In+, In+++
 (no references specified)
 (no experimental details specified)

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

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+ vlt NaClO4 20°C 0.70M U 1965VIa (589) 1
K(In+e=In(s))=-2.17, -126 mV
K(In(III)+2In(s)=3In)=-10.89
Medium: 0.7M HClO4
****
Br- HL Bromide CAS 10035-10-6 (19)
Bromide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+ vlt NaNO3 23°C 0.70M U K1=0.90 B2=1.95 1982RDa (2041) 2
B(In2Br)=1.88

In+ vlt NaNO3 25°C 1.00M U K1=1.56 B2=2.01 1979SMb (2042) 3
****
Cl- HL Chloride CAS 7647-01-0 (50)
Chloride;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+ vlt NaNO3 23°C 0.70M U K1=2.04 B2=2.51 1982RDa (5069) 4

In+ vlt NaNO3 25°C 1.00M U K1=2.37 1979SMb (5070) 5
****
F- HL Fluoride CAS 7644-39-3 (201)
Fluoride;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+ vlt NaNO3 23°C 0.70M U B2=4.85 1982RDa (6963) 6

In+ vlt oth/un 25°C 0.10M U K1=2.46 1979SMa (6964) 7
****
NO2- HL Nitrite CAS 7782-77-6 (635)
Nitrite;

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
In+        vlt NaNO3  23°C 0.70M U        K1=2.40   B2=3.62   1982RDa  (9381)   8
*************************************************************************
SCN-                    HL    Thiocyanate      CAS 463-56-9  (106)
Thiocyanate;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
In+        vlt NaNO3  23°C 0.70M U        K1=2.23   B2=3.18   1982RDa (15089)   9
*************************************************************************
SO4--                  H2L    Sulfate          CAS 7664-93-9  (15)
Sulfate;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
In+        vlt NaNO3  23°C 0.70M U                          1982RDa (16255)  10
                                          B(In2SO4)=0.90
*************************************************************************
e-                      HL    Electron           (442)
Electron;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
In+++      kin oth/un 25°C       U T H                      1971KCa   (590)  11
                                          K(In + 2In(s)=3In+)=-8.37
Medium: InBr3 at various concentrations; DH=110.0 kJ mol-1; K=-9.70(10 C),
-8.02(30 C), -7.40(40 C), -6.65(60 C)
-------------------------------------------------------------------------
In+++      ISE oth/un 25°C 0.10M U T                        1970EKa   (591)  12
                                          K(In + 2In(s)=3In+)=-8.52
Medium: 0.1 M In(ClO4)3, 0.005 M HClO4; K=-7.89(35 C), -6.89(45 C),
-5.68(60 C), -4.89(75 C), -3.85(90 C)
-------------------------------------------------------------------------
In+++      ISE oth/un 25°C 0.10M U T                        1970EKa   (592)  13
                                          K(In + 2In(s)=3In+)=-9.48
Medium: 0.1 M In(ClO4)3, 0.5 M HClO4; K=-9.33(35 C), -9.07(45 C),
-8.64(60 C), -8.41(75 C), -8.25(90 C)
-------------------------------------------------------------------------
In+++      EMF oth/un 135°C      U                          1969APa   (593)  14
                                          K(In + 2In(s)=3In+) > 27.2
Medium: (Na,K,Al)Cl
-------------------------------------------------------------------------
In+++      oth non-aq 24°C 100%  U                          1967HPa   (594)  15
                                          K(In+2In/Hg=3In+)=-0.54
Medium: MeCN
-------------------------------------------------------------------------
In+++      EMF none   15°C  0.0  U T                      1963CHb   (595)  16
                                          K(In+3e=In(s))=-17.82
K=-16.58(35 C), -16.08(45 C), -15.35(60 C, -338.1 mV)
```

In+++ EMF NaClO4 25°C 3.0M U 1960BWa (596) 17
K(In+2e=In(I))=-14.37(-425 mV)
K(In+3e=In(s))=-17.40(-343 mV)
K(In+2In(s)=3In(I))=-8.4

In+++ EMF none 25°C 0.0 U 1954KWa (597) 18
K(In+2e=In(I)=-13.7(-404.2 mV)
K=-17.03(-335.8)
K'=-6.94

K: In+3e=In(s). K=-17.66(18.5 C;340.7 mV),-16.00(35 C;326.1 mV),-13.71(60 C; -302.0 mV). K': In+2In(s)=3In(I). K'=-7.03(18.5 C),-6.74(40 C),-6.60(49.5 C)

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	cal	non-aq	25°C	100%	C	H	K1=6.9	B2=12.20	1996TSa (2043)	19
							K3=3.26			
							K4=1.92			

Medium: N,N-Dimethylformamide, 0.20 M Et4NClO4.
DH(K1)=-2.9 kJ mol-1, DH(K2)=0.5, DH(K3)=3.6, DH(K4)=54.2.

In+++	oth	NaClO4	25°C	3.0M	C	IH T	K1=2.10	B2=3.05	1983TUa (2044)	20

IUPAC evaluation. DH(K1)=1.95 kJ mol-1, DS=44 J K-1 mol-1

In+++	vlt	oth/un	25°C	1.0M	U		K1=2.38		1982TTa (2045)	21

in 1.0 M HClO4/LiClO4

In+++	vlt	NaClO4	20°C	4.0M	C		K1=2.10	B2= 2.40	1975KBd (2046)	22
							B3=2.50			
							B4=0.60			

Method: polarography. Medium pH 3.0.

In+++	ISE	non-aq	25°C	100%	U		K1=3.84	B2=6.78	1973SLd (2047)	23
							B3=7.00			
							B4=8.87			

Medium: DMSO, 1 M LiClO4. Method: InHg electrode

In+++	EMF	non-aq	25°C	100%	U		K1=1.45	B2=1.81	1972SGc (2048)	24
							B3=2.49			

Medium: formamide, 1.1 M NaNO3

In+++	vlt	NaClO4	25°C	2.0M	U		K1=2.21	B2=2.71	1971MOa (2049)	25
							B3=2.56			

In+++	dis	NaClO4	25°C	4.0M	U		K1=2.6	B2=3.24	1970HAb (2050)	26
							B3=3.24			
							B4=2.18			

```
-------------------------------------------------------------------------------
In+++      oth oth/un   ?   var  U        K1=1.7    B2=2.40   1969HPb  (2051)  27
                                         K3=0.7
Method: Raman
-------------------------------------------------------------------------------
In+++      ISE non-aq 25°C 100%  U        K1=3.51   B2=5.80   1969KSg  (2052)  28
                                         B3=8.30
                                         B4=10.51
                                         B5=13.2
                                         B6=16.0
Medium: DMF, 1 M LiClO4. Method: In amalgam electrode
-------------------------------------------------------------------------------
In+++      cal NaClO4 25°C  2.0M U   H                  1969RYa  (2053)  29
DH(K1)=1.97 kJ mol-1, DH(K2)=5.65; DS(K1)=44.4 J K-1 mol-1, DS(K2)=30.5
-------------------------------------------------------------------------------
In+++      ix  none    rt   0.0  U        K2=1.3         1962AKb  (2054)  30
                                         K3=0.59
                                         K4=-0.52
                                         K5=-1.6
                                         K6=-2.2
-------------------------------------------------------------------------------
In+++      vlt NaNO3  25°C  4.0M U        K1=1.36   B2=1.52   1962FSa  (2055)  31
B2=1.72 by In/Hg electrode
-------------------------------------------------------------------------------
In+++      ix  NaClO4 20°C 0.69M U        K1=2.06   B2=3.13   1959BKa  (2056)  32
                                         K3=0.34
Method: cation exchange. Medium: HClO4
-------------------------------------------------------------------------------
In+++      dis oth/un 25°C  0.0  U                   1958DIa  (2057)  33
                                         K3=-1.22
                                         K4=-1.92
-------------------------------------------------------------------------------
In+++      sp  NaClO4 22°C  4.0M U        K1=2.08   B2=3.36   1957BHa  (2058)  34
                                         K3=0.60
                                         K4=0.85
-------------------------------------------------------------------------------
In+++      ix  NaClO4 20°C 0.69M U        K1=2.01   B2=3.10   1954CIa  (2059)  35
                                         K3=0.18
Method: cation exchange. Medium: HClO4
-------------------------------------------------------------------------------
In+++      vlt NaClO4 25°C  2.0M U        K1=3.8    B2=4.8    1954CVb  (2060)  36
-------------------------------------------------------------------------------
In+++      gl  oth/un 25°C  var  U        K1=1.82          1954ROa  (2061)  37
-------------------------------------------------------------------------------
In+++      ix  NaClO4 25°C  1.0M U        K1=1.20   B2=1.78   1954SEb  (2062)  38
                                         K3=0.70
Method: cation exchange. Medium: NaClO4, pH 3.8
-------------------------------------------------------------------------------
In+++      ISE NaClO4 20°C  2.0M U        K1=1.98   B2=2.56   1954SUa  (2063)  39
-------------------------------------------------------------------------------
```

```
In+++      dis NaClO4 20°C  1.0M U        K1=1.93   B2=2.60   1954SUb  (2064)  40
By cation exchange K1=1.90
-------------------------------------------------------------------------------
In+++      gl  oth/un 25°C  var  U        K1=2.20        1952HHa  (2065)  41
*******************************************************************************
BrO3-                  HL    Bromate            (6017)
Bromate;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
In+++      dis NaClO4 25°C  4.0M U        K1=-0.12       1970HAb  (2413)  42
*******************************************************************************
C6N6Fe----            H4L                          (2191)
Hexacyanoferrate (II); Fe(II)(CN)6----
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
In+++      sol oth/un 25°C  var  U                         1956TGb  (3570)  43
                                       Kso=-43.72
*******************************************************************************
Cl-                    HL    Chloride         CAS 7647-01-0  (50)
Chloride;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
In+++      cal non-aq 25°C 100%  C   H    K1=9.2    B2=16.60  1996TSa  (5071)  44
                                       K3=5.26
                                       K4=2.91
Medium: N,N-Dimethylformamide, 0.20 M Et4NClO4.
DH(K1)=-14.9 kJ mol-1, DH(K2)=-10.7, DH(K3)=-6.9, DH(K4)=29.6.
-------------------------------------------------------------------------------
In+++      EMF NaClO4 25°C  5.0M C        K1=2.64   B2= 3.99  1994FSa  (5072)  45
                                       B3=4.45
                                       B4=3.59
                                       B5=2.65
                                       B6=2.18
Method: In/Hg amalgam electrode
-------------------------------------------------------------------------------
In+++      oth NaClO4 25°C  3.0M C  IH  T K1=2.40   B2=3.70   1983TUa  (5073)  46
IUPAC evaluation. DH(K1)=5.1 kJ mol-1, DS=57 J K-1 mol-1
-------------------------------------------------------------------------------
In+++      vlt oth/un 25°C  1.0M U        K1=2.52        1982TTa  (5074)  47
in 1.0 M HClO4/LiClO4
-------------------------------------------------------------------------------
In+++      dis NaClO4 25°C  4.0M U        K1=2.58   B2= 3.95  1980HSb  (5075)  48
                                       K3=0.06
                                       K4=0.11
Distribution into n-hexane with trioctylphosphine oxide
-------------------------------------------------------------------------------
In+++      vlt NaClO4 20°C  4.0M C        K1=2.70   B2= 3.20  1975KBd  (5076)  49
```

```
                                        B3=4.20
                                        B4=3.30
Method: polarography. Medium pH 3.0.
-------------------------------------------------------------------------------
In+++      ix  NaClO4 20°C 0.69M U       K1=2.40   B2=3.44   1974MId  (5077)  50
                                        B3=4.09 or 4.30
Medium: HClO4
-------------------------------------------------------------------------------
In+++      ISE non-aq 25°C 100%  U       K1=7.48   B2=9.30   1973SLd  (5078)  51
                                        B3=11.48
                                        B4=13.30
                                        B5=14.48
Medium: DMSO, 1 M LiClO4. Method: In amalgam electrode. Using least squares:
B4=13.34, B5=14.56
-------------------------------------------------------------------------------
In+++      ISE NaClO4 25°C  3.0M U T     K1=2.58   B2=3.84   1972FEa  (5079)  52
                                        B3=4.2
                                        K(InL+H2O=InL(OH)+H)=-3.9
                                        K(InL+In+H2O=In2L(OH)+H)=-2.3
Method: In amalgam and Ag electrodes
-------------------------------------------------------------------------------
In+++      dis non-aq 25°C 100%  U TI                  1972GOc  (5080)  53
                                        K(InL4+H)=3.2
Medium: methylbutyl ketone, 25-40 C. K(InL4+H)=3.3(60 C)
In nitrobenzene: K(InL4+H)=3.9
-------------------------------------------------------------------------------
In+++      EMF non-aq 25°C 100%  U       K1=1.84   B2=1.86   1972SGc  (5081)  54
Medium: formamide, 1.1 M NaNO3
-------------------------------------------------------------------------------
In+++      oth oth/un   ?   var  U                  1971SCc  (5082)  55
                                        K3=-0.5
                                        K4=-0.7
Method: ionophoresis
-------------------------------------------------------------------------------
In+++      dis NaClO4 25°C  4.0M U       K1=2.61   B2=4.18   1970HAb  (5083)  56
-------------------------------------------------------------------------------
In+++      oth oth/un   ?   var  U       K1=1.0    B2=1.70   1969HPb  (5084)  57
                                        K3K4=1.5
Method: Raman
-------------------------------------------------------------------------------
In+++      ISE non-aq 25°C 100%  U       K1=3.8    B2=6.0    1969KSg  (5085)  58
                                        B3=9.0
                                        B4=11.4
                                        B5=14.2
                                        B6=17.8
Medium: DMF, 1 M LiClO4. Method: emf with In amalgam electrode
-------------------------------------------------------------------------------
In+++      ix  NaNO3  25°C 1.50M U  I    K1=2.49   B2=4.03   1969MNb  (5086)  59
                                        B3=3.53 ?
In LiNO3: K1=1.75. In KNO3: K1=2.67, B2=4.4, B3=4.9
```

```
------------------------------------------------------------------------------
In+++      cal NaClO4 25°C  2.0M U   H    K1=2.08   B2=3.58   1969RYa  (5087)  60
                                         K3=-0.35
DH(K1)=5.2 kJ mol-1,DS=57 J K-1 mol-1; DH(K2)=3.26,DS=40; DH(K3)=33.5,DS=109
------------------------------------------------------------------------------
In+++      ix  NaClO4   ?  0.50M U  I     K1=2.47   B2=3.11   1964VRa  (5088)  61
                                         B3=3.94
Method:cation exchange. Med: HClO4. In 20% EtOH:K1=2.59,B2=3.75,B3=4.53;
In 40% EtOH:K1=2.68,B2=4.18,B3=4.84.
------------------------------------------------------------------------------
In+++      ix  none   25°C  0.0  U        K2=0.05        1963MMd  (5089)  62
                                         K3=0.45
                                         K4=-1.6
------------------------------------------------------------------------------
In+++      ISE none   25°C  0.0  U        K1=1.72   B2=2.64   1962APa  (5090)  63
------------------------------------------------------------------------------
In+++      vlt NaClO4 25°C  4.0M U        K1=2.26   B2=2.50   1962FSa  (5091)  64
                                         B3=3.55
------------------------------------------------------------------------------
In+++      dis NaClO4 25°C  1.0M U  I     K1=2.52        1961WKb  (5092)  65
Medium: HClO4. K1=2.51 (I=2). Also distribution measurements
------------------------------------------------------------------------------
In+++      ISE none   25°C  0.0  U    M                 1959ASd  (5093)  66
                                         Kso(In(OH)1.5L1.5)=-25.20
Kso(In(OH)3-xLx)=-20.88+0.86log[L]
------------------------------------------------------------------------------
In+++      ix  NaClO4 20°C 0.70M U        K1=2.27   B2=3.67   1959BKa  (5094)  67
                                         K3=0.47
------------------------------------------------------------------------------
In+++      dis none   25°C  0.0  U                  1959MEc  (5095)  68
                                         K3=-0.32
                                         K4=-1.12
------------------------------------------------------------------------------
In+++      dis none   25°C  0.0  U                  1958DId  (5096)  69
                                         K3=-0.53
                                         K4=-1.26
------------------------------------------------------------------------------
In+++      ix  none   25°C  0.0  U        K1=1.0?   B2=1.5    1958MAb  (5097)  70
                                         K3=0.05
                                         K4=-0.20
------------------------------------------------------------------------------
In+++      vlt none   25°C  0.0  U        B2=6.28        1958ZBa  (5098)  71
                                         B4=7.44
------------------------------------------------------------------------------
In+++      ix  NaClO4 20°C 0.69M U        K1=2.36   B2=3.63   1954CIa  (5099)  72
                                         K3=0.32
------------------------------------------------------------------------------
In+++      vlt NaClO4 25°C  2.0M U        K1=4.3    B2=6.1    1954CVb  (5100)  73
------------------------------------------------------------------------------
In+++      ix  NaClO4 25°C  1.0M U        K1=1.42   B2=2.23   1954SEb  (5101)  74
```

K3=1.00

In+++ ISE NaClO4 20°C 2.0M U I K1=2.15 B2=3.59 1954SUa (5102) 75
By ion exchange, I=1.0 M, K1=2.18

In+++ dis NaClO4 20°C 1.0M U K1=2.20 B2=3.56 1954SUb (5103) 76

In+++ vlt none 25°C 0.0 U B2=1.7 1951SSb (5104) 77
B4=-1

In+++ gl oth/un 25°C var U K1=2.04 1941MOa (5105) 78

****

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

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

---

In+++ dis NaClO4 25°C 4.0M U K1=-0.37 1970HAb (6036) 79

****

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

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

---

In+++ ISE KNO3 25°C 0.10M C M K1=3.64 B2=6.54 1987YHa (6965) 80
K(InA+F)= 2.0(H3A=NTA), 2.0(H3A=HEDTA), 1.6(H4A=EDTA), 2.1(H4A=CDTA)

In+++ oth NaClO4 25°C 3.0M C IH R K1=3.70 B2=6.36 1983TUa (6966) 81
IUPAC evaluation. K2 T(entative)
DH(K1), T(entative)=9.1, DS=101 J K-1 mol-1

In+++ cal NaClO4 25°C 0.50M U I K1=3.75 B2=6.61 1974VKb (6967) 82
B3=8.60
B4=9.87
K1=3.69,B2=6.52,B3=8.63,B4=9.90(I=1); K1=3.74,B2=6.63,B3=9.04,B4=10.31(I=2)

In+++ cal none 25°C 0.0 U H K1=4.66 B2=8.12 1974VKb (6968) 83
B3=10.27
B4=11.54
DH(K1)=10.9 kJ mol-1, DH(B2)=23.2, DH(B3)=29.5, DH(B4)=38.0.
DH values also for I=0.5, 1.0, 2.0 M

In+++ EMF NaClO4 25°C 1.0M U H 1971WTa (6969) 84
K(In+HF=InF+H)=0.78
K(InF+HF=InF2+H)=0.0
Method: quinhydrone electrode. By calorimetry: DH(K1)=12.5 kJ mol-1,
DS=114 J K-1 mol-1

In+++ ISE NaClO4 25°C ? U H K1=3.69 B2=6.52 1969RYa (6970) 85
K3=2.11

```
                                        K4=1.3
By calorimetry: DH(K1)=9.2 kJ mol-1, DS=101 J K-1 mol-1; DH(K2)=7.7,DS=80;
DH(K3)=13.8, DS=87
-------------------------------------------------------------------------------
In+++      dis NaClO4 25°C  1.0M U        K1=3.67   B2=6.26   1968ALe  (6971)  86
                                        B3=8.61
-------------------------------------------------------------------------------
In+++      EMF none   25°C  0.0  U  IH    K1=4.63        1955PAa  (6972)  87
DH(K1)=10 kJ mol-1, DH(K2)=17; DS(K1)=DS(K2)=100 J K-1 mol-1
At I=0 corr: K1=4.63, DS(K1)=DS(K2)=140
-------------------------------------------------------------------------------
In+++      EMF NaClO4 25°C 0.50M U TIH    K1=3.75   B2=6.36   1954HKa  (6973)  88
                                        K(In+HF=InF+H)=0.84
                                        K(InF+HF=InF2+H)=-0.30
At 15 C: K1=3.70, K2=2.55, *K1=0.85, *K2=-0.30. 35 C: 3.83,2.78,0.83,-0.22.
DH(K1)=10 kJ mol-1,DH(K2)=17,DH(*K1)=-2,DH(*K2)=4. At I=0 K1=4.63, DS=140
-------------------------------------------------------------------------------
In+++      ix  NaClO4 25°C  1.0M U        K1=3.00   B2=5.78   1954SEb  (6974)  89
                                        K3=2.82
Method: cation exchange, pH 3.8
-------------------------------------------------------------------------------
In+++      EMF NaClO4 20°C  1.0M U        K1=3.70   B2=6.26   1954SUb  (6975)  90
                                        K3=2.34
                                        K4=1.10
*******************************************************************************
FClBrI                 HL                        (541)
Halides, comparative (for book data under ligand 80)
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
In+++      EMF NaNO3  25°C  4.0M U    M                  1962FSa  (7406)  91
                                        B(InClBr)=2.54
                                        B(InCl2Br)=2.86
                                        B(InCl3Br)=2.90
Medium: In/Hg electrode
*******************************************************************************
I-                     HL    Iodide           CAS 10034-85-2  (20)
Iodide;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
In+++      cal non-aq 25°C 100%  C   H    K1=4.2    B2= 7.20  1996TSa  (8169)  92
                                        K3=1.2
                                        K4=1.8
Medium: N,N-Dimethylformamide, 0.20 M Et4NClO4.
DH(K1)=11.0 kJ mol-1, DH(K2)=12.6, DH(K3)=10, DH(K4)=54.
-------------------------------------------------------------------------------
In+++      vlt NaClO4 25°C  1.0M C        K1=3.10   B2= 3.80  1988MFb  (8170)  93
Analysis of literature data, applying correction for adsorption on Hg drop
-------------------------------------------------------------------------------
```

```
In+++      vlt oth/un 25°C  1.0M U        K1=1.89        1982TTa  (8171)  94
in 1.0 M HClO4/LiClO4
-------------------------------------------------------------------------------
In+++      vlt NaClO4 20°C  4.0M C        K1=1.35   B2= 1.40  1975KBd  (8172)  95
                                         B3=1.30
                                         B4=0.50
Method: polarography. Medium pH 3.0.
-------------------------------------------------------------------------------
In+++      ISE non-aq 25°C 100%  U        K1=2.36   B2=2.83   1973SLc  (8173)  96
Medium: DMSO, 1 M LiClO4. In amalgam electrode. By least squares: K1=2.30,
B2=2.85
-------------------------------------------------------------------------------
In+++      EMF non-aq 25°C 100%  U        K1=1.0    B2=1.8    1972SGc  (8174)  97
Medium: formamide, 1.1 M NaNO3
-------------------------------------------------------------------------------
In+++      EMF non-aq 25°C 100%  U        K1=3.25   B2=5.24   1971SAg  (8175)  98
                                         B3=7.40
                                         B4=8.32
Medium: DMF
-------------------------------------------------------------------------------
In+++      dis NaClO4 25°C  4.0M U        K1=1.97   B2=2.25   1970HAb  (8176)  99
                                         B3=1.9 to 2.2
-------------------------------------------------------------------------------
In+++      cal NaClO4 25°C  2.0M U   H                  1969RYa  (8177) 100
DH(K1)=-3.0 kJ mol-1, DH(K2)=3.4; DS(K1)=9.6 J K-1 mol-1, DS(K2)=35.1
-------------------------------------------------------------------------------
In+++      con non-aq 140°C 100%  U                    1967BNc  (8178) 101
                                         K(InI3+I2=I+InI4)=-1.89
Medium: liquid I2
-------------------------------------------------------------------------------
In+++      gl  oth/un 25°C  var  U        K1=1.69        1964PCa  (8179) 102
-------------------------------------------------------------------------------
In+++      ix  NaClO4 20°C 0.69M U        K1=1.64   B2=2.56   1954CIa  (8180) 103
                                         K3=-0.08
Method: cation exchange. Medium: HClO4
-------------------------------------------------------------------------------
In+++      vlt NaClO4 25°C  2.0M U        K1=3.1    B2=3.8    1954CVb  (8181) 104
-------------------------------------------------------------------------------
In+++      ix  NaClO4 25°C  1.0M U        K1=0.30        1954SEb  (8182) 105
Method: cation exchange at pH=3.8
-------------------------------------------------------------------------------
In+++      gl  NaClO4 20°C  2.0M U        K1=1.00   B2=2.26   1954SUb  (8183) 106
-------------------------------------------------------------------------------
In+++      gl  oth/un 25°C  var  U        K1=1.98        1952HHa  (8184) 107
*******************************************************************************
IO3-                    HL    Iodate           CAS 7782-68-5  (1257)
Iodate;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
```

In+++ dis NaClO4 25°C 4.0M U K1=1.02 B2=2.64 1970HAb (8521) 108
****
IrCl6--- H3L (1615)
Hexachloroiridate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl NaClO4 25°C 0.10M U T K1=2.15 1979SKa (8622) 109
Data also available when T=20, 35 and 42.
Alternative method: Kinetic methods.
****
NH3 L Ammonia CAS 7664-41-7 (414)
Ammonia

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl R4N.X 25°C 5.00M U K1=4.0 1985MMa (9170) 110
****
NO2- HL Nitrite CAS 7782-77-6 (635)
Nitrite;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl NaClO4 25°C 1.00M U K1=2.6 B2=4.0 1990EAa (9382) 111
B3=4.9
****
NO3- HL Nitrate CAS 7697-37-2 (288)
Nitrate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ oth NaClO4 20°C 0.69M C IH T K1=0.18 B2=-0.31 1983TUa (9714) 112
IUPAC evaluation

In+++ dis NaClO4 25°C 4.0M U K1=-0.43 1970HAb (9715) 113

In+++ ix NaClO4 20°C 0.69M U T K1=0.18 B2=-0.31 1968FDb (9716) 114
****
N3- HL Azide CAS 7782-79-8 (441)
Azide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ vlt NaClO4 25°C 2.0M C K1=3.57 B2= 5.93 1995TBa (10235) 115
B3=7.70
B4=9.32
Method: polarography.

In+++ gl NaClO4 25°C 2.0M C K1=3.31 B2= 5.61 1989BTa (10236) 116
B3=7.26

B4=8.46

In+++ gl NaClO4 25°C 1.00M C H K1=3.19 B2=5.61 1982AVb (10237) 117
B3=7.26
B4=8.46
DH(K1)=-7.4 kJ mol-1; DH(B2)=-4.0; DH(B3)=-10; DH(B4)=-9

****

OH- HL Hydroxide (57)
Hydroxide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	KNO3	25°C	0.10M	C			1982BEa (11622)	118
							*K1=-4.310		
							*B2=-9.35		
							*B(4,4)=-7.32		
							*B(5,5)=-9.120		
In+++	gl	NaClO4	25°C	3.00M	C	I		1982BFa (11623)	119
							*K1=-4.23		
							*B(2,2)=-5.27		
							*B(4,6)=-13.79		
In+++	ISE	mixed	25°C	0.10M	U			1981YRa (11624)	120
							K[In(OH)+H]=6.75		

0.1 M LiClO4 in 0.5 mol parts DMSO in H2O; for 1.0 M LiClO4 K=7.13
In-electrode

In+++	ISE	mixed	25°C	0.10M	U			1981YRb (11625)	121
							K[In(OH)+H]=4.86		

0.1 M LiClO4 in 0.48 mol parts dioxane in H2O; for 1.0 M LiClO4 K=4.49
In-electrode

In+++	ISE	mixed	25°C	1.0M	U			1980YRa (11626)	122
							K[In(OH)+H]=2.74		
							K[In(OH)2+2H]=5.29		
							K[In(OH)+H]=4.07 in 100% H2O		

1 M LiClO4 in 0.33 mol parts CH3CN in H2O; In-electrode
for 1 M LiClO4 in 0.65 mol parts CH3CN K(InOH+H)=2.35

In+++	gl	KNO3	21°C	0.10M	M			1976KSe (11627)	123
							*K1=-3.634		
In+++	gl	mixed	25°C	3.0M	C	I		1975KYa (11628)	124
							K[In(OH)+H]=2.94		
							K[In(OH)2+2H)=5.53		

In 3.0 M LiClO4 in 0.13 mol parts acetonitrile in H2O
For 3.0 M LiClO4 in 100% H2O K(In(OH)+H)=4.22

In+++	gl	mixed	25°C	3.0M	C			1975KZa (11629)	125

```
                                        K[In(OH)+H]=3.64
                                        K[In(OH)2+2H)=6.5
In 3.0 M LiClO4 in 0.36 mol parts acetone in H2O
For 3.0 M LiClO4 in 100% H2O K(In(OH)+H)=4.26
-------------------------------------------------------------------------------
In+++      EMF NaClO4 25°C 1.50M U                      1974GOc (11630) 126
                                        *B(2,2)=-7.85
                                        *B(2,3)=-10.30
                                        *B(2,4)=-13.25
-------------------------------------------------------------------------------
In+++      gl  mixed  25°C 0.11M U  I                   1974KYa (11631) 127
                                        *K1=-4.35
                                        *B2=-7.41
Medium: 0.11 M DMSO/H2O, M LiClO4.  In aqueous soln., *K1=-4.22, *B2=-7.14.
In 0.28 M DMSO, *K1=-4.55, *B2=-7.70. In 0.56 M DMSO, *K1=-4.82, *B2=-7.96
-------------------------------------------------------------------------------
In+++      gl  mixed  25°C 0.84M U  I                   1974KYa (11632) 128
                                        *K1=-5.19
                                        *B2=-8.25
Medium: 0.84 M DMSO/H2O, 3 M LiClO4. In 1.12 M DMSO, *K1=-5.89, *B2=-8.52.
In 1.68 M DMSO, *K1=-6.10, *B2=-8.62. In 2.26 M DMSO, *K1=-6.70, *B2=-8.70
-------------------------------------------------------------------------------
In+++      gl  mixed  25°C 0.50M U                      1974KYa (11633) 129
                                        *K1=-3.63
Medium: 0.5 to 2.6 M N,N-dimethylformamide/H2O, 3 M LiClO4
-------------------------------------------------------------------------------
In+++      kin oth/un 25°C       U                      1970HRb (11634) 130
                                        *K1=-5.0
-------------------------------------------------------------------------------
In+++      sol oth/un 25°C       U                      1970IEb (11635) 131
                                        K(InL3(s)+L=InL4)=-3.9
                                        K(InL3(s)+2L=InL5)=-5.5
                                        K(InL3(s)+3L=InL6)=-7.3
-------------------------------------------------------------------------------
In+++      dis NaClO4 25°C 3.00M U        K1=9.59   B2=19.43  1969ALc (11636) 132
-------------------------------------------------------------------------------
In+++      sp  NaClO4 25°C 0.10M U  I     K1=10.52  B2=20.32  1969BNd (11637) 133
                                        B3=29.26
K1=10.60, B2=20.59, B3=29.63(I=0.3);  K1=10.67, B2=20.78, B3=29.93(I=0.5);
K1=10.89, B2=21.34, B3=30.88(I=1) Glass electrode also used
-------------------------------------------------------------------------------
In+++      dis oth/un 25°C 1.00M U                      1965SAe (11638) 134
                                        *K1=-2.11
                                        *K2=-2.45
                                        *K3=-2.68
-------------------------------------------------------------------------------
In+++      sol none   25°C  0.0  U                     1963TPa (11639) 135
                                        *Ks(In(OH)3+H=In(OH)2+H2O)=0.2
                                        Ks(In(OH)3(s)+OH=In(OH)4)=-3.0
                                        Ks(In(OH)3+2OH)=-1.6?
```

Ks(In(OH)3+3OH)=-0.5?

In+++ gl NaCl 25°C 3.0M U 1961BLc (11640) 136
*K1=-6.95
*B(2,2)=-10.15

In+++ vlt none 20°C 0.0 U 1961KBc (11641) 137
Kso=-32.85

In+++ cal NaClO4 25°C 3.0M U H 1961SCb (11642) 138
DH(*K1)=20.3 kJ mol-1, DS=-17; DH(*B2)=ca.59?, DH(*B(2,2)=42.6, DS=43.1; DH(*B(n+1,2n))=42.59n, DS=53.1n-10.0

In+++ gl none 25°C 0.0 U 1959ASd (11643) 139
Kso=-36.92

In+++ oth none 25°C 0.0 U 1958VPa (11644) 140
*Kso=7.73(In2O3)
*Kso=8.65(In(OH)3)
*Kso(1/2In2O3(s)+3H=In+1.5H2O);*Kso(In(OH)3(s)+3H=In+3H2O)
Method: combination of thermodynamic data

In+++ gl NaClO4 25°C 3.0M U 1956BIa (11645) 141
*K1=-4.42
*K2=-3.9
*B(2,2)=-5.21
*B(n+1,2n)=-0.52-4.69n
*B(m,n)(mIn+nH2O=Inm(OH)n+nH). Method: also with In/Hg electrode

---

In+++ dis NaClO4 25°C 3.0M U 1956RRa (11646) 142
*K1=-4.4
*K2=-4.4

In+++ gl none 18°C 0.0 U 1949LAa (11647) 143
Kso=-33.9

In+++ gl oth/un 25°C var U 1942MOa (11648) 144
*K1=-4.92(in InCl3)
*K1=-4.85(in InBr3)
*K1=-4.74(in InI3)
*K1=-3.85

In+++ gl oth/un 25°C dil U T 1941MOa (11649) 145
Kso=-33.2
Kso=-34.4(10 C),-32.6(40 C)

In+++ gl oth/un 25°C dil U 1938OKa (11650) 146
Kso=-33.2

In+++ oth oth/un 23°C dil U 1936HVa (11651) 147

```
                                        *K1=-3.70
-------------------------------------------------------------------------
In+++      vlt oth/un 25°C  1.0M U                      1925HEa (11652) 148
                                        Kso=-33(fresh)
                                        Kso=-35(aged)
                                        Ks(In(OH)3(s)+OH)=-4.6
                                        *Ks(In(OH)3+H2O=In(OH)4)=-18.6
*************************************************************************
PO4---                H3L    Phosphate        CAS 7664-38-2  (176)
Phosphate;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
In+++      sp  NaClO4 25°C 0.20M U                      1980FIa (13222) 149
                                        K(In+HPO4)=7.40
                                        K(In+2HPO4)=13.71
-------------------------------------------------------------------------
In+++      ix  R4N.X  25°C 0.20M U                      1974FGc (13223) 150
                                        K(2In+H2L=In2HL+H)=0.09
-------------------------------------------------------------------------
In+++      ix  NaClO4 20°C 0.90M U                      1974FKa (13224) 151
                                        K(In+H2L)=2.34
-------------------------------------------------------------------------
In+++      sol NaClO4 25°C  1.0M U                      1968DTa (13225) 152
                                        Kso=-21.63
*************************************************************************
P2O7----              H4L    Pyrophosphate    CAS 2466-09-3  (198)
Diphosphate; from (HO)2PO.O.PO(OH)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
In+++      dis NaClO4 20°C 0.10M U                      1978ISa (13600) 153
                                        K(In+HL+L)=21.99
                                        B(InL2)=23.80
-------------------------------------------------------------------------
In+++      sp  NaClO4 20°C 0.10M U  I                   1969SAd (13601) 154
                                        K(In+HL)=10.2
                                        K(In+HL+H2L)=14.3
When I=0 corr, K(In+HL)=12.3, K(In+HL+H2L)=15.8
-------------------------------------------------------------------------
In+++      sol oth/un 20°C  var  U      T               1964GLa (13602) 155
                                        Kso(In4L3)=-62.5
                                        K(InHL(s)=In+HL)=-12.44
*************************************************************************
P3O10-----            H5L                    CAS 10380-08-2  (1001)
Tripolyphosphate; from (HO)2PO.O.PO(OH).O.PO(OH)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
In+++      sp  NaClO4 20°C 0.10M U  I                   1967ASc (13867) 156
```

K(In+2H2L)=12.18
K=14.16(0 corr)
****
S-- H2L Sulfide CAS 7783-06-4 (705)
Sulfide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ oth none 25°C 0 U 1988LIa (14402) 157
K(In2S3)=-96.3
*Kso(In2S3)=-44.3
Derived from thermodynamic data and K(H+S=HS)=17.3.

In+++ sp NaClO4 20°C 1.0M U 1970TSa (14403) 158
K(In+HL)=10.5
K(InHL+HL)=6.6
Kso=-77.4

In+++ oth none 25°C 0.0 U 1962TSb (14404) 159
Kso(In2L3)=-73.24
From thermodynamic data. By solubility K(In2L3(s)+6H=2In+3H2L)=-6.74
****
SCN- HL Thiocyanate CAS 463-56-9 (106)
Thiocyanate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ cal non-aq 25°C 100% C IH K1=5 B2= 8.70 1996TSa (15090) 160
K3=3.1
K4=2.4
K5=1.26
Medium: N,N-Dimethylformamide,0.20 M Et4NClO4. Also data at 0.4 M Et4NClO4
DH(K1)=-3.03 kJ mol-1, DH(K2)=-3.1, DH(K3)=-3.9, DH(K4)=-6.5, DH(K5)=-11.

In+++ sp non-aq 25°C 100% U IH K1=4.83 1987PGa (15091) 161
Medium: DMF. DH=0.69 kJ mol-1; DS=92 J K-1 mol-1

In+++ vlt NaClO4 20°C 4.00M U K1=1.89 B2=4.09 1985KBa (15092) 162
B3=4.89
B4=4.66
B5=5.05

In+++ oth NaClO4 25°C 3.0M C IH T K1=2.53 B2=3.88 1983TUa (15093) 163
IUPAC evaluation. DH(K1)=-7 kJ mol-1, DS=25 J K-1 mol-1

In+++ vlt oth/un 25°C 1.0M U K1=2.65 1982TTa (15094) 164
in 1.0 M HClO4/LiClO4

In+++ dis NaClO4 25°C 3.0M U I K1=2.40 B2=3.78 1974HSb (15095) 165
B3=4.58

B4=4.9
B5=4.4

K1=2.33, B2=4.06(I=0.1); K1=1.89, B2=3.60, B3=3.85, B4=4.2(I=1); K1=1.98, B2=3.65, B3=4.1, B4=4.5(I=2); K1=2.44, B2=4.11, B3=5.1, B4=5.3, B5=5.6(I=4)

In+++ vlt NaNO3 27°C 2.0M U K1=0.78 B2=2.49 1973RTb (15096) 166
B3=3.91

In+++ ISE non-aq 25°C 100% U T K1=2.02 B2=4.29 1973SLc (15097) 167
B3=5.13

Medium: DMSO, 1 M LiClO4. Method: In amalgam electrode

In+++ dis NaClO4 ? 1.0M U K1=2.18 B2=3.20 1973SSb (15098) 168
B3=4.20
B4=5.30

In+++ EMF non-aq 25°C 100% U K1=2.10 B2=2.70 1972SGc (15099) 169
B3=3.18
B4=3.76

Medium: formamide

In+++ vlt NaClO4 25°C 2.0M U K1=2.56 B2=3.7 1971MOa (15100) 170
B3=4.8
B4 < B3

In+++ EMF non-aq 25°C 100% U T K1=4.17 B2=6.40 1971SAg (15101) 171
B3=8.30
B4=10.34

Medium: N,N-dimethylformamide

In+++ dis NaClO4 25°C 4.0M U K1=2.44 B2=4.11 1970HAb (15102) 172
B3=5.10
B4=4.57
B5=5.45

In+++ cal NaClO4 25°C 2.0M U H 1969RYa (15103) 173

DH(K1)=-6.95 kJ mol-1, DS=25.5 J K-1 mol-1; DH(K2)=-15.9, DS=-35.1
DH(K3)=10.0, DS=53.1

In+++ sp oth/un 30°C 0.0 U T T K1=3.15 1968DDa (15104) 174

Medium: 0 corr. Using ISE: K1=3.26

In+++ vlt NaClO4 25°C 2.0M U T K1=1.7 B2=2.3 1965NHa (15105) 175
B3=2.08
B4=3.22

In+++ sp NaClO4 20°C 0.60M U T K1=2.34 1964KSe (15106) 176

In+++ ISE NaClO4 20°C 1.60M U I K1=2.58 B2=4.00 1963GSc (15107) 177
B3=4.74

```
                                        B4=4.80
In 70% MeOH  B4=9.00, B5=9.10. 100% MeOH B5=15.11 plus other concentrations
-------------------------------------------------------------------------------
In+++      ISE non-aq 20°C 100%  U  I                    1963GSd (15108) 178
                                        B4=12.5
Medium: DMF(Me2NCHO),1.2 M NaClO4. Also B1-B4 values at 25, 50 and 70%.
In MeCN: B6=27.26 and B1 to B5 in 25%, 50, 70% MeCN. In amalgam electrode
-------------------------------------------------------------------------------
In+++      vlt NaClO4 30°C  2.0M U      T K1=2.08   B2=3.20   1963RSd (15109) 179
                                        B3=4.24
                                        B4=4.23
                                        B5=4.81
                                        B6=4.84
-------------------------------------------------------------------------------
In+++      sp  NaClO4 25°C  1.0M U      T B2=4           1962SAd (15110) 180
-------------------------------------------------------------------------------
In+++      ISE NaClO4 20°C  2.0M U      T K1=2.58   B2=3.60   1954SUb (15111) 181
                                        K3=1.03
*******************************************************************************
SO4--                 H2L    Sulfate          CAS 7664-93-9  (15)
Sulfate;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
In+++      sp  NaClO4 25°C 0.20M C                      2001RSa (16256) 182
                                        Kout(In+SO4)=1.64
Method: absorption and fluorescence spectra.
-------------------------------------------------------------------------------
In+++      oth NaClO4 25°C  1.0M C  I   R K1=1.78   B2=2.53   1983TUa (16257) 183
                                        K3=0.4 (T)
IUPAC evaluation
-------------------------------------------------------------------------------
In+++      vlt NaClO4 25°C 1.10M U        K1=2.0         1972TSg (16258) 184
-------------------------------------------------------------------------------
In+++      cal none   25°C  0.0  U   H    K1=3.04   B2=5.00   1969IEa (16259) 185
DH(K1)=29.1 kJ mol-1, DS=155.5 J K-1 mol-1; DH(K2)=-7.3, DS=13.0
-------------------------------------------------------------------------------
In+++      dis NaClO4 25°C  1.0M U        K1=1.79   B2=2.51   1968ALe (16260) 186
-------------------------------------------------------------------------------
In+++      sol NaNO3  25°C  2.0M U        K1=1.78        1966DRa (16261) 187
-------------------------------------------------------------------------------
In+++      oth oth/un   ?  0.10M U                      1964LAb (16262) 188
                                        K1in/K1=-0.3
Method:infrared spectra. Medium:In2L3
-------------------------------------------------------------------------------
In+++      sp  oth/un 30°C  0.0  U        K1=3.74        1962NAc (16263) 189
-------------------------------------------------------------------------------
In+++      EMF NaClO4 20°C  2.0M U  I     K1=1.78   B2=1.88   1954SUa (16264) 190
                                        K3=0.48
Method: quinhydrone/In electrodes. By cation ion exchange,1 M NaClO4 K1=1.74
```

By distribution K1=1.85, K2=0.75, K3=0.40

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	EMF	non-aq	25°C	100%	U	I	K1=17.49	B2=19.15	1972SMd (16990)	191
							B3=20.75			
							B4=22.25			
							B5=24.04			
							B6=25.46			

Medium: acetone ,I=1. In MeCN: B6=24.49; in DMF: K1=7.00, B2=8.75, B3=10.49; in DMSO: K1=5.32, B2=5.87

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	sol	oth/un	20°C	var	U				1959MIa (17064)	192
							Kso(In2L3(H2O)6)=-32.6			

****

CH2O2 HL Formic acid CAS 64-18-6 (37)
Methanoic acid; H.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	vlt	NaNO3	25°C	2.00M	U	M	K1=2.90	B2=4.00	1987KSb (17617)	193
							B3eff=5.60			
							B4eff=6.28			

Data at pH 5 (all Keff ?)

In+++	EMF	NaClO4	20°C	2.0M	U	T	K1=2.74	B2=4.72	1953SUc (17618)	194
							K3=0.98			
							K4=1.00			

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	vlt	KCl	26°C	1.0M	C	M	K1=1.17	B2= 3.44	1987LPb (17836)	195
							B3=5.20			
							B(In(bpy)L)=4.95			
							B(In(bpy)2L)=6.27			
							B(In(bpy)L2)=5.36			

Method: polarography. Medium pH 4.5.

In+++	vlt	NaClO4	25°C	0.50M	U		K1=1.97		1978TLb (17837)	196

****

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
In+++	gl	NaClO4	20°C	0.10M	U		K1=7.78		1985SAa (18927)	197
In+++	ISE	KNO3	25°C	0.10M	C		K1=6.02	B2=11.47	1984PGa (18928)	198
							K3=14.53			
In+++	dis	NaClO4	25°C	1.0M	U		K1=5.30	B2=10.52	1966HSa (18929)	199
In+++	dis	NaClO4	20°C	0.10M	U				1963STc (18930)	200
							B3=14.7			
In+++	ix	oth/un	?	?	U				1960WTa (18931)	201
							K(In+HL)=3.08			

****

C2H3O2Cl HL Chloroacetic CAS 79-11-8 (34)
Chloroethanoic acid; ClCH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	ix	none	?	0.00	U		K1=0.71	B2=2.32	1973LAb (19369)	202
							B3=3.39			

****

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
In+++	gl	NaClO4	20°C	0.10M	U		K1=3.18		1985SAa (20006)	203
In+++	vlt	NaClO4	0°C	0.10M	U		K1=3.54	B2=5.95	1975VMa (20007)	204
							B3=7.95			
							B4=9.04			
							B5=11.15			

curve fitting method: K1=3.52, B2=5.93, B3=7.91, B4=9.00 ;
other method: K1=3.54, B2=5.86, B3=7.89, B4=9.23

In+++	vlt	oth/un	25°C	0.50M	U				1957CRa (20008)	205
							B3=10.6			
In+++	EMF	NaClO4	20°C	2.0M	U	T	K1=3.50	B2=5.95	1953SUc (20009)	206
							K3=1.95			
							K4=1.18			

****

C2H4O2S H2L Thioglycolic CAS 68-11-1 (596)
Mercaptoethanoic acid; HS.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	gl	KNO3	25°C	0.50M	M		K1=12.57	B2=23.53	1984TZa (20332)	207
							B3=31.21			
							B4=36.3			
In+++	gl	NaClO4	25°C	0.20M	U	T	K1=12.10	B2=22.43	1973SMc (20333)	208
							K3=6.34			

45 C: K1=11.87, K2=10.07, K3=6.00

****

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
In+++	oth	NaClO4	25°C	1.0M	C	I R	K1=2.99	B2=5.48	1983TUa (20563)	209
							K3=1.70			

IUPAC evaluation

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	gl	NaClO4	25°C	0.20M	U	T T	K1=2.91	B2=5.44	1973SMc (20564)	210

35 C: K1=3.00, K2=2.58; 45 C: K1=3.07, K2=2.63

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	ix	NaClO4	25°C	0.50M	U	T	K1=2.93	B2=5.4	1968TOa (20565)	211

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	ix	NaClO4	?	0.30M	U		K1=3.15	1960WTa (20566)	212

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	oth/un	?	0.14M	U		K1=2.95	1960WTa (20567)	213

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	EMF	NaClO4	20°C	2.0M	U	T	K1=2.93	B2=5.52	1953SUc (20568)	214
							K3=1.78			
							K4=0.65			

****

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
In+++	gl	NaClO4	20°C	0.10M	U		K1=8.55	1985SAa (21589)	215

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	NaClO4	25°C	0.20M	U	T	K1=2.39	1973SMc (21590)	216

35 C: K1=2.46; 45 C: K1=2.54

****

C2H5NO2 HL Acetohydroxamic CAS 546-88-3 (2766)

Acetohydroxamic acid, N-Hydroxyacetamide; CH3.CO.NHOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	gl	NaCl	31°C	0.15M	U	I	K1=7.42	B2=14.46	1992SKa (21813)	217

Also data for 25 and 50% v/v EtOH/H2O.

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	gl	KNO3	20°C	0.10M	U	M	K1=9.1	B2=17.17	1972TSb (22070)	218
							K3=6.91			
							K4=5.82			
							K(InL2+Cl)=0.18			

****

C2H7NS HL CAS 60-23-1 (588)
2-Aminoethanethiol; H2N.CH2.CH2.SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	gl	KCl	25°C	0.10M	C		K1=12.25	B2=22.55	1995LMa (22494)	219
							B(InHL)=16.56			
In+++	dis	NaClO4	20°C	1.00M	U				1985MKc (22495)	220
							K(In+H2L)=2.30			
							K(In+HL)=6.20			

Extraction by bis(2-ethylhexyl)phosphoric acid and TTA

****

C2H9NO6P2 H4L (6773)
(Aminoethylene)diphosphonic acid, 1-Aminoethane-1,1-di(phosphonic acid); H2N.C(CH3)(PO3H2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	gl	NaNO3	24°C	0.20M	C		K1=27.7	B2=32.7	1993BRa (23420)	221
							K(InL+H)=3.7			
							K(InHL+H)<1			
							K(InL2+H)=9.6			
							K(InHL2+H)=8.4			

K(InH2L2+H)=4.8, K(InH3L2+H)=1.0, K(InH4L2+H)<1, K(InH5L2+H)<1

****

C2H16N5O4Co HL (231)
Pentaammineoxalatocobalt(III); Co(NH3)5(HC2O4)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	sp	NaClO4	28°C	0.30M	U		K1=2.39		1974NDa (23475)	222

****

C3H3O4Br H2L Bromomalonic CAS 600-31-7 (6296)
2-Bromo-propanedioic acid, Bromomalonic acid; HOOC.CHBr.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	gl	NaClO4	30°C	0.10M	U		K1=5.08	B2=8.89	1976DGd (23538)	223

K3=3.39

****

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
In+++	vlt	NaNO3	25°C	2.00M	U	M		1987KSb (24469)	224	
							B3eff=7.81			

Data at pH 5 (all Keff ?)

In+++	ISE	KNO3	25°C	0.10M	C		K1=5.97	B2=10.13	1984PGa (24470)	225

In+++	gl	NaClO4	30°C	0.10M	U		K1=5.55	B2=9.32	1976DGd (24471)	226
							K3=3.08			

****

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
In+++	EMF	NaClO4	20°C	2.0M	U	T	K1=3.57	B2=6.36	1953SUc (25014)	227
							K3=1.79			
							K4=0.93			

****

C3H6O2S H2L Thiolactic acid CAS 79-42-5 (366)
2-Mercaptopropanoic acid; CH3.CH(SH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	gl	NaClO4	25°C	3.00M	C		K1=13.12		1988AFa (25151)	228
							B(InH-1L)=10.69			
							B(InH-2L)=8.21			

In+++	gl	NaClO4	25°C	0.20M	U	T	K1=12.28	B2=23.00	1973SMc (25152)	229
							K3=6.55			

35 C: K1=12.15, K2=10.56, K3=6.37; 45 C: K1=12.01, K2=10.41, K3=6.40

****

C3H6O2S H2L CAS 107-96-0 (437)
3-Mercaptopropanoic acid; HS.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	gl	alc/w	25°C	50%	M		K1=13.35	B2=22.8	1984TZa (25212)	230

In+++	gl	KNO3	20°C	0.50M	U		B2=19.91		1978KSa (25213)	231
							B3=26.66			
							B4=30.528			
							B(In2L2)=25.767			
							B(In3L4)=48.606			

In+++ gl NaClO4 25°C 0.10M U TI K1=11.87 B2=19.53 1972SMa (25214) 232
K3=6.25
35 C, K1=11.73, K2=7.59, K3=6.08; 45 C, K1=11.60, K2=7.46, K3=5.98. Data also in 0.1, 0.2, 0.3 and 0.4 NaClO4.
****
C3H6O3 HL CAS 81598-26-7 (2521)
3-Hydroxypropanoic acid; HO.CH2.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl NaClO4 25°C 0.10M U TI K1=3.75 B2=6.79 1972SMa (25267) 233
I=0.2 M: K1=3.71, K2=3.01. 35 C: K1=3.86, K2=3.12; I=0.2: K1=3.80, K2=3.10; I=0.4: K1=3.72, K2=3.03

In+++ gl none 25°C 0.00 U T B2=6.96 1972SMa (25268) 234
35 C: B2=7.20; 45 C: B2=7.45
****
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
---
In+++ gl NaClO4 20°C 0.10M U K1=3.71 1985SAa (25465) 235

In+++ gl NaClO4 25°C 0.20M U T T K1=3.14 B2=5.74 1973SMc (25466) 236
35 C, K1=3.21, K2=2.66; 45 C, K1=3.29, K2=2.71
****
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
---
In+++ vlt KNO3 30°C 0.50M U K1=9.18 B2=16.49 1981MNb (26191) 237
Method: polarography.

In+++ gl NaClO4 25°C 0.20M U T K1=2.51 1973SMc (26192) 238
K1(35 C)=2.57, K1(45 C)=2.63
****
C3H7NO2 HL B-Alanine CAS 107-95-9 (575)
3-Aminopropanoic acid; H2N.CH2.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl NaClO4 25°C 0.10M U TI K1=2.72 B2=5.26 1972SMa (26459) 239
K1(35 C)=2.78, K2(35 C)=2.64; K1(45 C)=2.83, K2(45 C)=2.73. Data also for I=0.2, 0.3 and 0.4 M NaClO4

In+++ gl none 25°C 0.00 U T B2=5.33 1972SMa (26460) 240
B2(35 C)=5.51, B2(45 C)=5.67

****

C3H7NO2S H2L Cysteine CAS 52-90-4 (96)
2-Amino-3-mercaptopropanoic acid; H2N.CH(CH2.SH)COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	KNO3	21°C	0.10M	M		K1=14.12 B2=27.26 B3=32.20 B(InHL)=18.46 B(InHL2)=31.78 B(InH2L2)=35.74	1975KSd (26802)	241

****

C3H7NS2 HL CAS 128-04-1 (2125)
Dimethyldithiocarbamic acid; (CH3)2N.CSSH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	EMF	non-aq	25°C	100%	U		B3=27.5	1987USa (27276)	242

Medium: DMF, 0.1 M LiClO4

****

C3H8O3S3 H3L Unithiol CAS 74-61-3 (1271)
2,3-Dimercaptopropanesulfonic acid; HS.CH2.CH(SH).CH2.SO3H

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	dis	oth/un	?	?	U		K(In2L3)=55.3	1971EPd (27792)	243

****

C3H9NS HL CAS 462-47-5 (1566)
3-Aminopropane-1-thiol; H2N.CH2.CH2.CH2.SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	dis	NaClO4	20°C	1.00M	U		K(In+H2L)=3.10 K(In+HL)=8.10	1985MKc (27954)	244

Extraction by bis(2-ethylhexyl)phosphoric acid and TTA

****

C3H11NO6P2 H4L (6772)
(Dimethylamino)-N-methylenediphosphonic acid; (CH3)2N.CH(PO3H2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	NaNO3	24°C	0.20M	C		K1=30.0 B2=35.8 K(InL+H)=9.5 K(InHL+H)<1 K(InL2+H)=10.8 K(InHL2+H)=9.9	1993BRa (28413)	245

K(InH2L2+H)=6.0, K(InH3L2+H)=4.9, K(InH4L2+H)=1.7, K(InH5L2+H)<1

```
**************************************************************************
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
--------------------------------------------------------------------------
In+++      vlt NaNO3  25°C 2.00M U    M   K1=4.30   B2=5.30   1987KSb (29087) 246
                                          B3eff=7.20
Data at pH 5 (all Keff ?)
--------------------------------------------------------------------------
In+++      ISE KNO3   25°C 0.10M C        K1=5.05        1984PGa (29088) 247
--------------------------------------------------------------------------
In+++      vlt NaClO4 25°C 0.20M U        K1=5.0    B2=7.1    1967NMa (29089) 248
                                          B3=6.2
**************************************************************************
C4H4O4                H2L    Fumaric acid     CAS 110-17-8  (289)
trans-Butenedioic acid; HOOC.CH:CH.COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
In+++      gl  oth/un 25°C  ->0  U        K1=3.04        1951PJb (29204) 249
**************************************************************************
C4H6O4                H2L    Me-Malonic Acid  CAS 516-15-2  (816)
Methylpropanedioic acid; HOOC.CH(CH3).COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
In+++      gl  NaClO4 30°C 0.10M U        K1=6.19   B2=11.28  1976DGd (30128) 250
                                          K3=3.71
**************************************************************************
C4H6O4S               H3L    Thiomalic acid   CAS 70-49-5  (109)
2-Mercaptosuccinic acid, 2-Sulfanyl-1,4-butanedioic acid; HOOC.CH(SH).CH2.COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
In+++      gl  NaClO4 25°C 0.10M C TI     K1=14.95  B2=26.70  1972SMe (30340) 251
Data for I=0.10-0.40 M NaClO4. At I=0, B2=27.27. Data for 25-45 C.
At 35 C, DH(B2)=-51.1 kJ mol-1, DS(B2)=346 J K-1 mol-1.
**************************************************************************
C4H6O5                H2L    Malic acid       CAS 617-48-1  (393)
2-Hydroxybutane-1,4-dioic acid, Hydroxy-succinic acid; HOOC.CH2.CH(OH).COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
In+++      gl  NaNO3  25°C 0.50M M    M                    1989MAa (30648) 252
                                          B(-3,1,1)=-3.63
                                          K(2InH-2L=In2H-4L2)=-10.5
B(p,q,r): pH+qM+rH2L. K(UO2+In+2H2L=UO2InH-2L2+6H)=-7.45
--------------------------------------------------------------------------
In+++      gl  oth/un 25°C    ?  U                         1972MKc (30649) 253
```

K(UO2+In+2H2L=UO2InH-2L2+6H)=-7.62

In+++ gl NaClO4 25°C 0.10M C TI K1=4.60 B2= 8.21 1972SMe (30650) 254
Data for I=0.10-0.40 M NaClO4. At I=0, B2=8.32. Data for 25-45 C.
At 35 C, DH(B2)=43.6 kJ mol-1, DS(B2)=305 J K-1 mol-1.

In+++ EMF KNO3 22°C 0.20M U B2=10.62 1971PVa (30651) 255
Also quoted B2=9.77

In+++ dis oth/un 25°C ? U 1970AKa (30652) 256
Keff(InL2+0.5(UO2L)2=InUO2L2+L)=1.48, pH 4.
****
C4H6O6 H2L DL-Tartaric acd CAS 133-37-9 (94)
DL-Tartaric acid,DL-2,3-Dihydroxybutanedioic acid; HOOC.CH(OH).CH(OH).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl NaNO3 25°C 0.50M M M 1989MAa (31025) 257
B(-4,1,1)=-4.91
K(2InH-2L=In2H-4L2)=-11.3
B(p,q,r): pH+qM+rH2L. K(UO2+In+2H2L=UO2InH-4L2+8H)=-7.77
****
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
---
In+++ gl NaClO4 20°C 0.10M U 1985SAa (31279) 258
B(InH-1L)=2.65
K(In+H-1L)=17.05

In+++ ISE KNO3 25°C 0.10M C K1=4.5 B2=7.58 1984PGa (31280) 259

In+++ dis NaClO4 25°C 1.00M U K1=5.04 B2=9.21 1975KLb (31281) 260
K(In+2HL)=4.72
Extraction by di-2-ethylhexylphosphoric acid

In+++ gl oth/un 25°C ? U 1972MKc (31282) 261
K(UO2+M+2H2L=UO2MH-2L2+6H)=-7.14

In+++ gl NaClO4 25°C 0.10M U K1=4.44 B2=8.46 1972MRc (31283) 262
Values quoted for meso form
K1(dl)=4.97, K2(dl)=4.77, B2(meso-dl)=11.14

In+++ dis oth/un 25°C ? U 1970AKa (31284) 263
K'(ML2+0.5(UO2L)2=MUO2L2+L)=1.49, conditional constant, pH 4

In+++ dis NaClO4 20°C 0.10M U K1=4.48 1963STc (31285) 264
****
C4H7NO2S2 H2L CAS 2030-77-5 (4281)

2-Dithiocarbaminopropanoic acid; CH3.CH(NH.CSSH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	EMF	NaClO4	25°C	1.00M	U		K1=7.44 B2=14.19 B3=19.87	1972RBb (31477)	265

****

C4H7NO4 H2L Aspartic acid CAS 56-84-8 (21)
Aminobutanedioic acid; H2N.CH(CH2.COOH).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	ISE	KNO3	25°C	0.10M	C		K1=9.56 B2=16.7 K(InL2+H)=4.75	1984PGa (31872)	266
In+++	gl	NaClO4	25°C	0.10M	C	TI	K1=3.26 B2= 6.10	1972SMe (31873)	267

Data for I=0.10-0.40 M NaClO4. At I=0, B2=6.17. Data for 25-45 C.
At 35 C, DH(B2)=41.8 kJ mol-1, DS(B2)=258 J K-1 mol-1.

****

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
In+++	sp	oth/un	25°C	0.10M	U		K1=10.14	1997YSa (32281)	268
In+++	gl	NaClO4	25°C	1.00M	U		K1=10.2 B2=20.3 B3=29.0 B(InHL)=12.6 B(In2L)=14.0	1985MMa (32282)	269
In+++	gl	NaClO4	20°C	0.10M	U		K1=10.20	1985SAa (32283)	270
In+++	ISE	KNO3	25°C	0.10M	C	M	K1=10.14 B2=19.67	1984PGa (32284)	271

Ternary complexes In(III)-IDA-acetate and In(III)-IDA-maleic acid also reported

In+++	gl	KCl	25°C	0.30M	U		K1=9.54 B2=18.41	1966MAb (32285)	272

****

C4H11NS HL CAS 108-02-1 (1792)
1-Mercapto-2-(N,N-dimethyl)aminoethane; HS.CH2.CH2.N(CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	vlt	KCl	26°C	0.25M	U		K1=0.28 B2=1.73	1972PMb (35137)	273

****

C4H13NO6P2S H5L CAS 78014-43-4 (2649)
2-Mercaptoethylamine-N,N-bis(methylphosphonic acid); HS.CH2.CH2.N(CH2.PO3H2)2

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

```
------------------------------------------------------------------------------
In+++      dis NaClO4 20°C 1.00M U                      1983KDd (35611) 274
                                        K(In+H3L)=9.6
******************************************************************************
C4H13NO9P2S           H5L                      CAS 58480-01-6  (2650)
2-Sulfoethylamine-N,N-di(methylphosphonic acid); HSO3.CH2.CH2.N(CH2.PO3H2)2
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
In+++      dis NaClO4 20°C 1.00M U                      1983KDd (35621) 275
                                        K(In+H3L)=11.0
******************************************************************************
C4H14N2O6P2           H2L    EDDPO            CAS 1733-49-9  (2435)
1,2-Diaminoethane-N,N'-bis(methylenephosphonic) acid; (H2O3P.CH2.NH.CH2)2
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
In+++      dis NaClO4 20°C 1.00M U                      1983KDd (35883) 276
                                        K(In+H2L)=12.7
******************************************************************************
C5H5NOS                L                        CAS 23003-22-7  (2904)
3-Hydroxy-2-mercaptopyridine; C5H3N(OH)(SH)
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
In+++      vlt KCl    25°C 0.10M U        K1=5.4    B2=7.41   1977SPc (36727) 277
******************************************************************************
C5H5NO2                HL                       CAS 13161-30-3  (5582)
1-Hydroxypyridin-2(1H)-one, 2-Hydroxypyridine 1-oxide;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
In+++      gl  KCl    25°C 0.10M U        K1=8.09   B2=13.97  1993LMc (36756) 278
                                        K3=4.53
******************************************************************************
C5H5NO2                HL                       CAS 16867-04-2  (2316)
2,3-Dihydroxypyridine, 3-Hydroxypyridin-2(1H)-one; C5H3N(OH)2
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
In+++      vlt KCl    25°C 0.10M U        K1=5.56   B2=8.00   1977SPc (36790) 279
******************************************************************************
C5H5NO3               H2L                      CAS 99110-85-7  (2195)
1,4-Dihydroxy-2-pyridinone;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
In+++      gl  KCl    25°C 0.10M C        B2=17.22       1992CMc (36846) 280
                                        B3=22.29
                                        B(InHL)=15.26
```

B(InHL2)=24.45
B(InH2L2)=29.89
B(InHL3)=29.20

****

C5H6N2O L CAS 16867-03-1 (2903)
2-Amino-3-hydroxypyridine; C5H3N(OH)(NH2)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	vlt	KCl	25°C	0.10M	U		K1=4.83	B2=7.71	1977SPc (37192)	281

****

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
In+++	oth	NaClO4	25°C	0.50M	C	I T	K1=8.20		1983TUa (37995)	282

IUPAC evaluation

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	oth	NaClO4	25°C	0.10M	C	I T	K1=7.8	B2=14.4	1982SLc (37996)	283
							B3=18.5			

IUPAC evaluation. I=0 corr.: K1=8.0, B2=15.1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	vlt	NaClO4	25°C	0.50M	U		K1=8.8	B2=16.20	1966CBb (37997)	284
							K3=6.0			
In+++	dis	oth/un	?	0.10M	U		K1=8.08	B2=14.3	1960STb (37998)	285
							B3=18.6			
In+++	gl	oth/un	30°C	0.0	U		K1=8.0	B2=15.1	1955IFa (37999)	286

****

C5H9NO2 HL Proline CAS 147-85-3 (44)
Pyrrolidine-2-carboxylic acid; C4H8N.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	vlt	NaClO4	30°C	0.10M	U	M	K1=7.99	B2=17.00	1983JKb (38623)	287
							B(InL(His))=18.14			
In+++	vlt	KNO3	30°C	0.50M	U		K1=8.30	B2=14.38	1980PKc (38624)	288
							B3=20.94			

Method: polarography.

****

C5H9NO3S2 H3L (2159)
2,3-Dimercaptopropanoyl-glycine; HS.CH2.CH(SH).CO.NH.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	gl	KNO3	20°C	0.10M	U		K1=17.249	B2=31.46	1978KSc (38823)	289
							B(InHL)=19.722			

B(InHL2)=35.571
****
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
---
In+++ vlt NaClO4 30°C 0.10M U M K1=6.65 B2=14.39 1983JKb (39820) 290
B(InL(His))=16.37

In+++ vlt NaClO4 30°C 0.10M C M K1=6.65 B2=14.39 1980JKa (39821) 291
B(InLA)=14.28
Method: polarography. HA is L-methionine
****
C5H10OS2 HL CAS 110-50-9 (591)
(Butoxy)dithiomethanoic acid; CH3.CH2.CH2.CH2O.CSSH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ dis oth/un 25°C 0.25M U 1982SAa (40161) 292
B3=11.1
****
C5H11NO2S H2L Penicillamine CAS 52-66-4 (350)
DL-2-Amino-3-mercapto-3-methylbutanoic acid; (CH3)2C(SH)CH(NH2)COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl KNO3 21°C 0.10M M K1=15.330 B2=29.79 1976KSe (41272) 293
B(InHL)=18.858
B(InHL2)=33.391
B(InH-1L)=11.25
****
C5H11NS2 HL CAS 147-84-2 (2126)
Diethyldithiocarbamic acid; (CH3.CH2)2N.CSSH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ EMF non-aq 25°C 100% U 1987USa (41355) 294
B3=28.5
Medium: DMF, 0.1 M LiClO4
****
C5H12N2O2 HL Ornithine CAS 1069-31-4 (46)
2,5-Diaminopentanoic acid; H2N.CH2.CH2.CH2.CH(NH2)COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ vlt NaClO4 30°C 0.10M C T H K1=1.78 B2= 3.34 1981SBf (41577) 295
B3=5.20
Method: polarography. At 40 C K1=1.30, B2=3.38, B3=5.07.
DH(K1)=-85.9 kJ mol-1, DH(B2)=6.82, DH(B3)=-22.9.

****
C5H12O3S4 H3L CAS 19872-38-9 (4331)
2,3-Dimercaptopropylthioethanesulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ dis oth/un ? ? U 1971EPd (41656) 296
B(In2L3)=54.6
****
C5H12O4S3 H3L CAS 19872-36-7 (4332)
2,3-Dimercaptopropanoxyethanesulfonic acid; HS.CH2.CH(SH).CH2.O.CH2.CH2.HSO3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ dis oth/un ? ? U 1971EPd (41670) 297
B(In2L3)=56.2
****
C5H12O5S4 H3L CAS 35617-14-2 (4333)
2,3-Dimercaptopropanesulfonethanesulfonic acid; HS.CH2.CH(SH).CH2.SO2.CH2CH2.HSO3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ dis oth/un ? ? U 1971EPd (41701) 298
B(In2L3)=55.3
****
C6H5NO2 HL Picolinic acid CAS 98-98-6 (391)
2-Pyridine-carboxylic acid; C5H4N.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ ISE KNO3 25°C 0.10M C K1=5.81 B2=11.56 1984PGa (42552) 299
K3=15.77
*K(InL)=-3.7

In+++ gl diox/w 25°C 50% U T H K1=5.56 B2=10.70 1977SMc (42553) 300
K3=3.82
DH(K1)=-18.8 kJ mol-1, DH(K2)=-20.5, DH(K3)=-15.7
****
C6H6O3 HL Isomaltol CAS 3420-59-5 (5885)
1-(3-Hydroxy-2-furanyl)ethanone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl NaCl 25°C 0.15M C K1=7.08 B2=11.14 1989LCa (44034) 301
K3=3.66
****
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

---
In+++ gl NaClO4 25°C 0.20M U K1=17.25 B2=31.90 1984KJa (44462) 302
By spectrophotometry K1=17.30, K2=14.56, K3=11.75

In+++ gl NaClO4 25°C 0.10M U K1=16.34 1972GKc (44463) 303

In+++ gl NaNO3 25°C 0.20M U K1=17.00 B2=30.85 1968ASa (44464) 304

In+++ sp oth/un 29°C 0.20M U TIH K1=3.71 1965NDa (44465) 305
K1=4.45(I=0), 3.91(I=0.05), 3.79(I=0.1). At I=0.1 M: K1=3.75(20 C),3.84(45C)
DH(K1)=5.9 kJ mol-1, DS=92.8 J K-1 mol-1
****
C6H7N L Picoline CAS 109-06-8 (320)
2-Methylpyridine; C5H4N.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ vlt NaNO3 25°C 2.00M U M 1987KSb (44610) 306
B3eff=10.56
B(InLA)=7.91
B(InLA2)=8.43
B(InL2A)=9.93
B(InLB)=8.05; B(InLB2)=8.97; B(InL2B)=10.23. HA=formic acid,H2B=malonic acid
Data at pH 5 (all Keff ?)
****
C6H7N L beta-Picoline CAS 108-99-6 (324)
3-Methylpyridine; C5H4N.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ vlt NaNO3 25°C 2.00M U M 1987KSb (44700) 307
B3eff=10.36
B(InLA)=6.40
B(InLA2)=7.40
B(InL2A)=9.38
B(InLB)=7.85; B(InL2B)=9.83; B(InLB2)=8.82. HA=formic acid, H2B=malonic acid
Data at pH 5 (all Keff ?)
****
C6H7N L gamma-Picoline CAS 108-89-4 (325)
4-Methylpyridine; C5H4N.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ vlt NaNO3 25°C 2.00M U M K1=5.30 B2=7.90 1987KSb (44826) 308
B3eff=9.78
B4eff=11.85
B5=14.02
B(InLA)=6.34; B(InL2A)=9.64; B(InLA2)=8.49. H2A=maleic acid. Data at pH 5
****
C6H7NO2 HL CAS 19365-01-6 (6771)

1-Methyl-3-hydroxy-2-pyridinone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	KCl	25°C	0.10M	C		K1=9.35 B2=17.35 B3=24.44	1992CMc (45029)	309

****

C6H7NO2 HL CAS 17184-19-9 (5888)
3-Hydroxy-2-methylpyridin-4(1H)-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	NaCl	25°C	0.15M	M		K1=13.51 B2=23.70 B3=32.76	1990CLa (45051)	310

****

C6H8N2 L 2-Picolylamine CAS 29722-36-9 (502)
2-(Aminomethyl)pyridine; C5H4N.CH2NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	NaNO3	25°C	0.10M	U		K1=7.6	1991DMb (45357)	311

****

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
In+++	gl	NaNO3	25°C	0.50M	M	M	K(In+H3L=InH-1L+4H)=-7.3 K(2InH-1L=In2H-2L2)=-11.72 K(UO2+In+2H3L=InUO2H-2L2+8H)=-11.30	1989MAa (46139)	312
In+++	gl	NaClO4	20°C	0.10M	U		B(InH-1L)=5.02 K(In+H-1L)=21.02	1985SAa (46140)	313
In+++	gl	oth/un	25°C	?	U	M	K(In+UO2+2H3L=UO2InH-2L2+8H)=-11.58	1972MKc (46141)	314
In+++	dis	oth/un	25°C	pH 4	U	M	Keff(InL2+0.5(UO2L)2=InUO2L2+L)=2.86	1970AKa (46142)	315
In+++	ix	NaClO4	?	0.50M	U		K1=6.18	1962RMa (46143)	316

****

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
In+++	gl	KNO3	25°C	0.10M	C		K1=13.81 B2=23.70	1994HCa (46863)	317

B(InHL2)=26.57

In+++ EMF NaClO4 20°C 0.10M U T K1=16.9 1967BAc (46864) 318

In+++ sp oth/un 21°C ? U K1=15.88 1965ZAa (46865) 319

In+++ ix oth/un ? 0.50M U K1=14.88 1963RMb (46866) 320

In+++ dis NaClO4 20°C 0.10M U B2=24.4 1963STc (46867) 321

****

C6H9N3O2 HL Histidine CAS 71-00-1 (1)
2-Amino-3-(4'-imidazolyl)propanoic acid; H2N.CH(CH2.C3H3N2)COOH

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

---

In+++ vlt NaClO4 30°C 0.10M U M K1=10.05 B2=17.96 1983JKb (47570) 322
B(InL(Gln))=16.37
B(InL(Pro))=18.14

****

C6H10O4S H2L CAS 111-17-1 (139)
3,3'-Thiodipropanoic acid; HOOC.CH2.CH2.S.CH2.CH2.COOH

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

---

In+++ vlt alc/w 30°C 30% U I K1=1.64 B2=2.32 1972RGc (48183) 323
B3=2.63
B4=3.53
Medium: 0-50% MeOH, 1.2 M KCl. K1(0%)=1.30, K1(50%)=2.08, B2(0%)=1.90, B2(50%)=2.48, B3(0%)=2.38, B3(50%)=3.08, B4(0%)=3.42, B4(50%)=4.25

****

C6H11NO3S2 H2L (2160)
2-Mercaptopropanoyl-cysteine; CH3.CH(SH).CO.NH.CH(CH2.SH).COOH

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

---

In+++ gl KNO3 20°C 0.10M U K1=16.454 B2=29.26 1978KSc (48563) 324
B(InHL)=19.444
B(InHL2)=33.814

****

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

---

In+++ gl KNO3 35°C 0.10M U K1=11.61 1980KHb (48747) 325

In+++ sp oth/un 20°C ? U 1972KVa (48748) 326
K(In+H2L)=4.90
K(In+HL)=12.46

In+++ ix oth/un ? 0.50M U K1=11.0 1963RMb (48749) 327
****
C6H12N2O4 H2L CAS 4726-83-4 (5911)
N,N-Dihydroxyhexanediamide; HN(OH).CO.(CH2)4.CO.NH(OH)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl NaNO3 25°C 0.10M C K1=14.86 1989EHa (49334) 328
****
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
---
In+++ gl NaNO3 25°C 0.10M C 1995EOa (49726) 329
B(InH-3L)=-9.21

In+++ vlt NaClO4 30°C 1.0M C K1=5.30 B2= 6.30 1978PBb (49727) 330
B3=7.48
B4=7.60
B5=9.32
Method: polarography. Medium pH 6.5.

In+++ vlt NaClO4 25°C 0.20M U K1=2.75 B2=4.67 1973KMc (49728) 331
****
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
---
In+++ gl NaNO3 25°C 0.10M U K1=7.06 1991DMb (50374) 332
K(InL+OH)=10.40
K(InH-1L+OH=InH-2L)=9.82
****
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
---
In+++ dis NaClO4 20°C 1.00M U 1983KDd (52344) 333
K(In+H5L)=13.2
****
C7H5NO4 H2L Quinolinic acid CAS 89-00-9 (567)
2,3-Pyridinedicarboxylic acid; C5H3N.(COOH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ vlt NaClO4 30°C 1.5M C K1=6.48 B2= 7.60 1980BPb (52628) 334
B3=8.52
B4=9.00

Method: polarography.

****

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
In+++	vlt	NaClO4	25°C	0.5M	C	T	K1=11.7	B2=18.90	1983PBa (52782)	335
							B3=20.3			
							B4=21.8			

Method: polarography. Also data for 15 C and 10% MeOH/H2O.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	gl	diox/w	25°C	50%	U	T H	K1=5.82	B2=11.03	1977SMc (52783)	336

DH(K1)=-15.7 kJ mol-1, DH(K2)=-17.1

****

C7H5NO5 H2L Nitrosalicylic CAS 96-97-9 (148)
2-Hydroxy-5-nitrobenzoic acid; HO.C6H3(NO2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	oth	oth/un	?	?	U		K1=7.5	B2=13.80	1971KHb (53051)	337
							K3=5.86			

****

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
In+++	dis	non-aq	25°C	100%	C			2001NCa (53677)	338
							K(InL3+TOPO)=0.97		
							K(InL3+2TOPO)=1.86		

TOPO is trioctylphosphane oxide. Medium: CCl4.

****

C7H6O2S H2L Thiosalicylic CAS 147-93-3 (236)
2-Mercaptobenzoic acid; HS.C6H4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	gl	alc/w	25°C	50%	M		K1=12.03	B2=21.56	1984TZa (53910)	339

****

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
In+++	gl	NaClO4	20°C	0.10M	U		K1=14.28	1985SAa (54238)	340
In+++	oth	alc/w	30°C	75%	U		K1=2.59	1973SMb (54239)	341

Medium: 75% EtOH, 0.2 M NaClO4

****

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
In+++	gl	NaClO4	20°C	0.10M	U		K1=11.45		1985SAa (55016)	342

****
C7H7NO2 HL Anthranilic CAS 118-92-3 (1589)
2-Aminobenzoic acid, Anthranilic acid; H2N.C6H4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	oth	alc/w	30°C	75%	U		K1=11.10	B2=20.00	1973SMb (55232)	343

Medium: 75% EtOH, 0.2 M NaClO4
****
C7H9NO2 HL CAS 30652-11-0 (2458)
3-Hydroxy-1,2-dimethylpyridin-4(1H)-one; (OH)(CH3)(O:)C5H2N.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	gl	KCl	25°C	0.10M	C		K1=11.85	B2=22.48	1994MRa (56440)	344
							K3=9.23			
In+++	gl	KCl	25°C	0.10M	C		K1=11.85	B2=22.48	1992CMb (56441)	345
							K3=9.23			
In+++	gl	NaCl	25°C	0.15M	M		K1=13.60	B2=23.93	1990CLa (56442)	346
							B3=32.93			

****
C7H12O4 H2L CAS 534-59-8 (480)
Butylpropanedioic acid (Butylmalonic acid); HOOC.CH(C4H9).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	gl	NaClO4	30°C	0.10M	U		K1=5.86	B2=10.24	1976DGd (57339)	347
							K3=3.14			

****
C7H12O6 HL Quinic acid CAS 77-95-2 (2578)
1,3,4,5-Tetrahydroxycyclohexane-1-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	ix	NaClO4	25°C	0.50M	U		K1=2.56	B2=5.39	1970TOa (57403)	348

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	kin	NaClO4	25°C	2.0M	U	T	K1=3.84		1975KId (58510)	349

K(InL+H)=-0.89

In+++ kin NaClO4 10°C 2.0M U T K1=3.79 1975KId (58511) 350

In+++ sp KNO3 12°C 0.10M U 1965GEa (58512) 351

K(In+H2L)=4.61

****

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
In+++	gl	mixed	25°C	46%	U		K1=5.97	B2=11.73	1972BTb (58632)	352

Medium: 0.1 (C2H5)4NClO4, 46% acetone

In+++	dis	NaClO4	25°C	0.10M	U		K1=6.0	B2=12.0	1968SAb (58633)	353

B3=17.6

B(LuL(OH))=16.8

B(LuL(OH)2)=26.0

B(LuL2(OH))=22.3

****

C8H5O3F3 HL CAS 15788-03-1 (3215)

1,1,1-Trifluoro-3-2'-furoylacetone; F3C.CO.CH2.CO.C4H3O

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	gl	mixed	25°C	46%	U		K1=5.93	B2=11.38	1972BTb (58715)	354

Medium: 46% acetone, 0.1 M Et4NClO4

****

C8H8O2 HL Phenylacetic CAS 103-82-2 (1361)

Phenylethanoic acid; C6H5.CH2.COOH

In+++	vlt	none	25°C	0.0	U				1957CRa (59551)	355

B3=10.2

****

C8H8O3 HL Mandelic Acid CAS 611-72-3 (80)

2-Phenyl-2-hydroxyethanoic acid; C6H5.CH(OH).COOH

In+++	ix	NaClO4	25°C	0.50M	U		K1=2.58	B2=5.40	1970TOa (59842)	356

****

C8H8O4 HL CAS 520-45-6 (4478)

3-Acetyl-2-hydroxy-6-methylpyran-4-one, Dehydroethanoic acid;

In+++	gl	diox/w	35°C	50%	U		K1=5.00	B2=9.08	1971MAa (60091)	357

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
In+++	gl	diox/w	35°C	50%	U				1971MAa (60497)	358
							K(In+HL)=4.43			
							K(In+2HL)=8.07			

Medium: 50% dioxan, 0.01 M NaClO4

****

C8H11NO2 HL CAS 30652-12-1 (5889)

3-Hydroxy-2-methyl-1-ethylpyridin-4-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	gl	NaCl	25°C	0.15M	M		K1=13.53	B2=23.78	1990CLa (61093)	359
							B3=32.80			

****

C8H11O2F3 HL CAS 81944-89-0 (4535)

1,1,1-Trifluoro-4-(isobutyl)-2,4-butanedione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	gl	mixed	25°C	46%	U		K1=6.78	B2=13.18	1972BTb (61293)	360

Medium: 46% acetone, 0.1 M Et4NClO4

****

C8H11O2F3 HL CAS 22767-90-4 (1249)

1,1,1-Trifluoro-5,5-dimethyl-2,4-hexanedione; F3C.CO.CH2.CO.CH(CH3)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	gl	mixed	25°C	46%	U		K1=6.85	B2=13.41	1972BTb (61302)	361

Medium: 46% acetone, 0.1 M Et4NClO4

****

C8H12N2O8 H4L CAS 35039-85-1 (4537)

1,2-Diaminoethane-N,N'-dimalonic acid; (HOOC)2.CH.NH.CH2.CH2.NH.CH(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	vlt	KNO3	25°C	0.10M	U		K1=23.12		1973GKc (61510)	362
							K(In+HL)=16.75			

****

C8H14O4S2 H2L CAS 54825-18-2 (4543)

Ethylenebis(3-mercaptopropionate)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	vlt	oth/un	30°C	0.10M	U	T			1972SCe (62108)	363

KIn+H2L)=0.60
K(In+2H2L)=2.11
K(In+3H2L)=3.93
40 C: K(In+H2L)=0.30, K(In+2H2L)=2.00, K(In+3H2L)=3.93
****
C8H16N2O4 H2L CAS 38937-66-5 (5912)
N,N-Dihydroxyoctanediamide; HN(OH).CO.(CH2)6.CO.NH(OH)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl NaNO3 25°C 0.10M C K1=15.32 1989EHa (62540) 364
****
C8H16N2O4S2 H4L (6947)
2,7-Dicarboxy-3,6-diaza-1,8-octanedithiol;
HS.CH2.CH(COOH)NH.CH2CH2.NH.CH(COOH)CH2.SH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl KCl 25°C 0.10M C K1=33.0 1996LMa (62549) 365
B(InHL)=35.76
B(In(OH)L)=22.85
B(In(OH)2L)=11.01
****
C8H24N2O12P4S H8L CAS 33424-58-7 (2648)
1,7-Diaza-4-thiaheptane-1,1,7,7-tetra(methylphosphonic acid);
S(CH2.CH2.N(CH2.PO3H2)2)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ dis NaClO4 20°C 1.00M U 1983KDd (63486) 366
K(In+H5L)=13.0
****
C8H24N2O13P4 H8L CAS 25007-19-4 (2647)
1,7-Diaza-4-oxaheptane-1,1,7,7-tetra(methylphosphonic acid);
O(CH2.CH2.N(CH2.PO3H2)2)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ dis NaClO4 20°C 1.00M U 1983KDd (63494) 367
K(In+H5L)=12.2
****
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
---
In+++ sp NaClO4 25°C 0.20M U 1982PSb (63809) 368
K(In+HL=InHL)=2.84
K(In+HL=InL+H)=2.37

```
In+++      gl  diox/w 25°C  50%  U T H    K1=8.27   B2=16.12  1977SMc (63810) 369
                                         K3=6.85
DH(K1)=-2.8 kJ mol-1, DH(K2)=-13.3, DH(K3)=-13.3
-------------------------------------------------------------------------------
In+++      sp  oth/un   ?   dil  U        B2=16.57       1971BRf (63811) 370
*******************************************************************************
C9H7NO                 HL    Oxine            CAS 148-24-3  (504)
8-Hydroxyquinoline (8-quinolinol);
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
In+++      gl  NaClO4 20°C 0.10M U        K1=11.22       1985SAa (64286) 371
-------------------------------------------------------------------------------
In+++      oth NaClO4 25°C 0.10M C  I   R K1=12.00  B2=23.95  1983TUa (64287) 372
                                         K3=11.45
IUPAC evaluation
-------------------------------------------------------------------------------
In+++      gl  diox/w 25°C  50%  U        K1=13.30  B2=25.46  1978THc (64288) 373
                                         B3=36.43
-------------------------------------------------------------------------------
In+++      gl  diox/w 25°C  50%  U T H    K1=12.66  B2=24.83  1977SMc (64289) 374
                                         K3=10.26
DH(K1)=-20.5 kJ mol-1, DH(K2)=-23.8, DH(K3)=-32
-------------------------------------------------------------------------------
In+++      sp  alc/w    ?   20%  U                       1971BRf (64290) 375
                                         B3=30.72
-------------------------------------------------------------------------------
In+++      dis NaClO4 25°C 0.10M U        K1=12     B2=23.9   1968SAb (64291) 376
                                         B3=35.3
-------------------------------------------------------------------------------
In+++      oth none     ?   0.0  U                       1957PKa (64292) 377
                                         Kso=-31.34
*******************************************************************************
C9H7NO3S2              H2L                   CAS 58447-10-2  (4675)
8-Mercaptoquinoline-5-sulfonic acid;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
In+++      sp  oth/un   ?     ?  U        K1=11.6   B2=22.70  1968ABa (64425) 378
                                         K3=7.2
*******************************************************************************
C9H7NO4S               H2L    Sulfoxine      CAS 84-88-8  (448)
8-Hydroxyquinoline-5-sulfonic acid;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
In+++      sp  NaClO4 25°C 0.20M C        K1=6.53        2001RSa (64552) 379
                                         K(In+HL)=3.61
                                         K(InL+H)=1.4
                                         Kout(In+H2L)=-0.52
```

Kout(In+HL)=0.57
Method: absorption and fluorescence spectra.

In+++ gl diox/w 25°C 50% U T H K1=9.80 B2=19.40 1977SMc (64553) 380
K3=7.82
DH(K1)=-15.0 kJ mol-1, DH(K2)=-18.8, DH(K3)=-22.1

In+++ sp oth/un ? ? U K1=10.9 B2=19.00 1973BIb (64554) 381
****
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
---
In+++ sp NaClO4 ? 0.10M U 1969HSd (64709) 382
K(In+HL)=10.06

In+++ gl alc/w 25°C 50% U 1967NPb (64710) 383
K(In+HL)=10.8
Medium: 50% MeOH, 0.1 M NaClO4
****
C9H8O4 HL Acetylsalicylic CAS 50-78-2 (1240)
2-Acetoxybenzoic acid, Acetylsalicylic acid; CH3.CO.O.C6H4.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ vlt NaClO4 30°C 1.0M U K1=4.48 B2=4.70 1968GJa (64897) 384
B3=6.48
B4=6.81
B5=8.13
****
C9H8O4 H2L CAS 2613-89-0 (1145)
Phenylmalonic acid; HOOC.CH(C6H5).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl NaClO4 30°C 0.10M U K1=6.09 B2=11.42 1976DGd (64995) 385
****
C9H11NO6S H3L CAS 73487-23-7 (5467)
N,N-Dimethyl-2,3-dihydroxy-5-sulfonatobenzamide; HSO3.C6H2(OH)2.CONMe2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl KNO3 25°C 0.10M U K1=15 B2=28 1982PWa (66464) 386
B3=37
****
C9H13NO2 L (7151)
1,2-Diethyl-3-hydroxy-4-pyridinone

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

---
In+++ gl KCl 25°C 0.10M C K1=12.04 B2=23.04 1994MRa (66797) 387
K3=9.4
****
C9H14N2O9 H4L CAS 56360-11-3 (2576)
2-Hydroxy-1,3-diaminopropane-N,N'-di(1,3-propanedioic acid)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ vlt KNO3 25°C 0.1M U K1=24.24 1976GDc (67137) 388
K(In+HL)=17.15
****
C9H18N2O4 H2L CAS 18992-11-5 (5913)
N,N-Dihydroxynonanediamide; HN(OH).CO.(CH2)7.CO.NH(OH)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl NaNO3 25°C 0.10M C K1=15.93 1989EHa (67940) 389
****
C9H19NS2 HL CAS 150-11-8 (1154)
N,N-Di(n-butyl)dithiocarbamate; (C4H9)2N.CSSH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ EMF non-aq 25°C 100% U 1987USa (67990) 390
B3=29.7
Medium: DMF, 0.1 M LiClO4
****
C10H7N3O4S H3L CAS 63129-59-9 (4762)
4-(2,4'-Carboxythiazolylazo)-1,3-dihydroxybenzene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ sp oth/un ? 0.10M U K1=4.36 B2=10.77 1971DGd (69087) 391
****
C10H7O2F3 HL CAS 326-06-7 (196)
3-Benzoyl-1,1,1-trifluoroacetone; CF3.CO.CH2.CO.C6H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl mixed 25°C 46% U K1=5.85 B2=11.80 1972BTb (69152) 392
Medium: 46% acetone, 0.1 M EtNClO4
****
C10H8N2 L 2,2'-Bipyridyl CAS 366-18-7 (25)
2,2'-Bipyridine; (C5H4N)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ vlt KCl 26°C 1.0M C K1=3.11 B2= 4.30 1987LPb (69589) 393
B3=5.54

Method: polarography. Medium pH 4.5.

In+++ ISE oth/un 25°C 1.0M U K1=4.75 B2=8.0 1972KMf (69590) 394

In+++ dis NaNO3 25°C 1.0M U K1=3.45 B2=8.06 1971KMg (69591) 395

****

C10H8O8S2 H4L Chromotropic ac CAS 148-25-4 (1875)
1,8-Dihydroxynaphthalene-3,6-disulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	gl	NaNO3	25°C	0.10M	U		K1=16.04		1990HWa (69956)	396

****

C10H9NO HL 8-OH-Quinaldine CAS 826-81-3 (998)
2-Methyl-8-hydroxyquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values			Reference	ExptNo
In+++	gl	diox/w	25°C	50%	U	T H	K1=12.30	B2=22.81		1977SMc (70048)	397
							K3=8.86				
In+++	sp	alc/w	?	100%	U		K1=12.2	B2=23.9		1963OHa (70049)	398
							B3=35				

DH(K1)=-15.5 kJ mol-1, DH(K2)=-20.5, DH(K3)=-22.1

Medium: EtOH

****

C10H9NO HL CAS 5541-67-3 (999)
5-Methyl-8-hydroxyquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	gl	diox/w	25°C	50%	U		B2=25.97		1978THc (70066)	399
							B(InH2L2)=32.00			
							B(In(OH)L2)=20.74			

****

C10H9NO3S2 HL (7206)
6-Methyl-5-sulfo-8-mercaptoquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	sp	oth/un	20°C	0.10M	U		K1=11.3	B2=22.40	1985DAb (70177)	400
							K3=7.10			

****

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
In+++	dis	oth/un	?	0.10M	U		K1=8.4	B2=15.5	1960STb (70737)	401
							B3=20.8			

****

C10H12N2O4 HL (6004)
N-Benzyloxycarbonylglycyl hydroxamic acid; C6H5.CH2.O.CO.NH.CH2.CO.NHOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	KNO3	25°C	0.10M	U		K1=7.2 B2=15.2	1987CSb (71302)	402

****

C10H16N2O8 H4L EDDS CAS 52759-67-8 (1100)
1,2-Diaminoethane-N,N'-di-1,4-butanedioic acid; (CH2.NH.CH(COOH)CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	vlt	KNO3	25°C	0.10M	U		K1=22.70	1973GKd (73146)	403
							K(In+HL)=16.54		

****

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
In+++	EMF	KNO3	25°C	0.10M	C		K1=25.09	1997DFa (73876)	404
							K(InL+H)=1.90		
							K[In(OH)2L+]=10.80		
							K(In(OH)L+H)=8.36		
In+++	gl	KNO3	25°C	0.50M	C	M		1989TBa (73877)	405
							K(InL+H)=0.66		
							*K(InL)=-8.22		
							K(InL+F)=0.9		
							K(InL+S)=9.4		
In+++	gl	KNO3	25°C	0.50M	C	M		1986TBa (73878)	406
							K(InL+H)=0.66		
							*K(InL)=-8.22		
							K(InL+F)=0.9		
							K(In(OH)L+HS=InLS)=9.4		
In+++	gl	NaClO4	20°C	0.10M	U		K1=20.71	1985SAa (73879)	407
In+++	gl	KNO3	35°C	0.10M	U		K1=25.00	1980KHb (73880)	408
In+++	EMF	NaClO4	20°C	0.10M	U	T	K1=25.3	1967BAc (73881)	409
							K(InL+H)=1.5		
							K(InL+OH)=5.33		
In+++	sp	NaClO4	25°C	1.0M	U	T		1965BRc (73882)	410
							K(In+HL)=15.0		
In+++	sp	oth/un	21°C	?	U		K1=25.62	1965ZAa (73883)	411

```
------------------------------------------------------------------------------
In+++      vlt KNO3   20°C 0.10M U      T K1=24.95       1964PCa (73884) 412
------------------------------------------------------------------------------
In+++      ix  oth/un   ?  0.50M U        K1=23.06       1963RMb (73885) 413
------------------------------------------------------------------------------
In+++      dis NaClO4 20°C 0.10M U                       1963STc (73886) 414
                                        B(InL(OH))=32.0
------------------------------------------------------------------------------
In+++      cal KNO3   20°C 0.10M U   H                   1958SRa (73887) 415
DH(K1)=-30.2 kJ mol-1, DS=374 J K-1 mol-1
------------------------------------------------------------------------------
In+++      gl  KNO3   15°C 0.10M U                       1956STa (73888) 416
                                        K(In+HL)=1.0
                                        K(InLOH+H)=8.80
******************************************************************************
C10H18N2O7            H3L    HEDTA            CAS 150-39-0  (392)
N-(Hydroxyethyl)diaminoethane-N,N',N'-triethanoic acid;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
In+++      gl  KNO3   35°C 0.10M U        K1=24.33       1980KHb (75426) 417
------------------------------------------------------------------------------
In+++      sp  NaClO4 25°C 0.10M U        K1=20.2        1972NKa (75427) 418
------------------------------------------------------------------------------
In+++      ix  oth/un   ?  0.50M U        K1=17.16       1963RMb (75428) 419
******************************************************************************
C10H20N2O4            H2L                    CAS 5578-84-7  (5914)
N,N-Dihydroxydecanediamide; HN(OH).CO.(CH2)8.CO.NH(OH)
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
In+++      gl  NaNO3  25°C 0.10M C        K1=16.08       1989EHa (75801) 420
******************************************************************************
C10H20N2O4S2          H4L    EDDASS             (6912)
N,N'-Bis(2-mercaptoethyl)diaminoethane-N,N'-diethanoic acid;
(-CH2.N(CH2.CH2.SH)CH2.COOH)2
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
In+++      gl  KNO3   25°C 0.10M C        K1=37.0        1996SAb (75814) 421
------------------------------------------------------------------------------
In+++      gl  KCl    25°C 0.10M C        K1=37.0        1995SMa (75815) 422
------------------------------------------------------------------------------
In+++      gl  KCl    25°C 0.10M C        K1=37          1995SMb (75816) 423
******************************************************************************
C10H24N2S2            H2L                    (7871)
N,N'-Bis(2,2-dimethyl-2-mercaptoethyl)diaminoethane;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
```

In+++ gl KNO3 25°C 0.10M C K1=27.34 1996SAb (76598) 424
K(In(OH)L+H)=6.66
K(InL+H)=2.1
K(In(OH)2L+H)=11.1
****
C11H8N3O2Br H2L CAS 17091-08-6 (4865)
4-(5'-Bromo-2'-pyridylazo)-1,3-dihydroxybenzene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ sp oth/un ? 0.10M U 1967BIa (76921) 425
K(In+3HL=InL2+3H)=2.54
****
C11H8N6O7S2 H4L CAS 35322-95-7 (909)
3-Hydroxy-4-(1H-tetrazol-5-ylazo)-2,7-naphthalenedisulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl NaClO4 25°C var U 1992PPa (76939) 426
K(In+H2L=InL+2H)=0.06

In+++ sp NaClO4 25°C 0.10M U 1981PSa (76940) 427
K(In+H2L=InL+2H)=-0.67
****
C11H8N6O8S2 H5L CAS 74385-48-1 (897)
2-(1H-Tetrazol-5-ylazo)chromotropic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl NaClO4 25°C var U 1992PPa (76952) 428
K(In+H3L=InHL+2H)=-2.54

In+++ sp NaClO4 25°C 0.10M U 1981PSa (76953) 429
K(In+H3L=InHL+2H)=-3.28
****
C11H8O4 HL CAS 7555-37-5 (4812)
3-Acetyl-4-hydroxycoumarin

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl diox/w 35°C 50% U K1=4.30 B2=7.48 1971MAa (77179) 430
Medium: 50% dioxan, 0.01 M NaClO4
****
C11H8O4 HL CAS 6724-42-1 (6183)
8-Formyl-7-hydroxy-4-methyl-2H-1-benzopyran-2-one; CHO.C9H3O(:O)(CH3)(OH)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl alc/w 35°C 70% U K1=6.56 B2=12.88 1988KRc (77202) 431
****

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

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl diox/w 35°C 50% U 1971MAa (77422) 432
K(In+HL)=3.84
K(In+2HL)=6.64
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
---
In+++ sp NaClO4 25°C 0.80M U I 1985MBa (77551) 433
B(In+H3L=InHL+2H)=-1.44
Also data for 5-35% CH3CN, Me2SO and DMF and 5-50% CH3OH.

In+++ gl diox/w 25°C 50% U K1=12.54 B2=24.00 1978SMb (77552) 434
Medium: 50% dioxane/H2O, 0.20 M NaClO4.

In+++ sp NaClO4 25°C 0.10M U 1971BRd (77553) 435
K(InOH+HL)=21.57

In+++ sp oth/un 25°C ? U 1966DMf (77554) 436
K(?)=9.3
****
C11H18N2O7S H3L (639)
N,N-Bis-carboxylmethylamino-acetyl-methionine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ EMF KNO3 25°C 0.10M U K1=8.90 B2=15.37 1983YJa (79209) 437
****
C11H18N2O8 H4L CAS 38539-29-0 (2573)
1,3-Diaminopropane-N,N'-di(1,4-butanedioic acid)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ vlt KNO3 25°C 0.1M U K1=22.02 1976GDc (79367) 438
K(In+HL)=16.08
****
C11H18N2O8 H4L CAS 4408-81-5 (923)
1,3-Diaminopropane-N,N,N',N'-tetraethanoic acid; ((HOOC.CH2)2N.CH2.)2.CH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ EMF NaClO4 20°C 0.10M U K1=21.15 1967BAc (79452) 439
K(InL+H)=1.64

K(InL+OH)=5.60
****
C11H18N2O9 H4L CAS 668-21-1 (2562)
2-Hydroxy-1,3-diaminopropane-N,N'-di(1,4-butanedioic) acid

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ vlt KNO3 25°C 0.1M U K1=23.75 1976GDc (79598) 440
K(In+HL)=16.98
****
C11H24N2O2S2 H3L (7911)
1-Carboxy-N,N'-bis(2,2-dimethyl-2-mercaptoethyl)diaminoethane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl KNO3 25°C 0.10M C K1=30.9 1996SAb (79900) 441
K(In(OH)L+H)=8.8
****
C11H30N6 L (6595)
5-(4'-Amino-2'-azabutane)-5-methyl-3,7-diazanonane-1,9-diamine;
CH3.C(CH2.NH.CH2.CH2.NH2)3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl KCl 25°C 0.50M M K1=15.1 1991HLa (80060) 442
K(InL+H)=9.7
K(InHL+H)=6.7
K(InH-1L+H)=10.4
****
C12H8N2 L Phenanthroline CAS 66-71-7 (144)
1,10-Phenanthroline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ ISE oth/un 25°C 1.0M U K1=5.70 B2=10.04 1972KMf (80469) 443
B3=14.0

In+++ dis NaNO3 25°C 1.0M U K1=5.51 B2=10.10 1971KMg (80470) 444
B3=14.49
****
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
---
In+++ sp oth/un rt ? U 1967SYa (80612) 445
K(InOH+H3L=InOH(H2L)+H)=5.09
****
C12H10N2O2 H2L CAS 2050-14-8 (3378)
2,2'-Dihydroxyazobenzene; HO.C6H4.N:N.C6H4.OH

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
In+++      sp  KCl    25°C 0.10M U                         1962KMa (80701) 446
                                     K(In+H2L=InL+2H)=5.2
                                     K(InL+H2L=InL2+2H)=8.0(?)
********************************************************************************
C12H11NO2               L                      CAS 49744-73-2  (1602)
3-Hydroxy-2-methyl-1-phenyl-4-pyridone; (O)(CH3)(OH).C5H2N-C6H5
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
In+++      gl  NaCl   25°C 0.15M C        K1=13.34  B2=22.66  1991ZRa (80823) 447
                                     B3=31.12
                                     B3(eff)=25.12
B3(eff) in 0.15M NaCl, pH 7.4
--------------------------------------------------------------------------------
In+++      dis NaCl   25°C 0.20M C   H                    1989INa (80824) 448
                                     B3=32.63
********************************************************************************
C12H11N3O              HL                     CAS 19406-16-7  (3974)
4-Methyl-2-(2'-pyridylazo)phenol; C5H4N.N:N.C6H3(OH).CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
In+++      sp  diox/w 25°C 0.4%  U    M   K1=11.8          1968WKa (80876) 449
                                     K(InL+A)=3.0
                                     K(InL2+A)=1.9
                                     K(InL3+A)=1.3
Medium: 0.4% dioxan, 0.2 M. HA=ethanoic acid
********************************************************************************
C12H11N3O2             H2L                    CAS 17091-06-4  (4910)
1,3-Dihydroxy-4-(4'-methyl-2'-pyridylazo)benzene;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
In+++      sp  oth/un   ?  0.10M U                         1967BIa (80899) 450
                                     K(In+3HL=InL3+3H)=3.92
********************************************************************************
C12H11N3O2             H2L                    CAS 18271-45-9  (4911)
1,3-Dihydroxy-4-(5'-methyl-2'-pyridylazo)benzene;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
In+++      sp  oth/un   ?  0.10M U                         1967BIa (80900) 451
                                     K(In+3HL=InL3+3H)=3.52
********************************************************************************
C12H19O3P              HL                     CAS 66170-45-4  (8310)
Phenylphosphonic acid monohexyl ester;
--------------------------------------------------------------------------------
```

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	dis	NaCl	RT	2.0M	C			1977NAc (81993)	452

K(In+5HL(org)=InL3(HL)2(org)+3H)=16.3
Method: extraction from 2.0 M NaCl solution into benzene.

****

C12H20N2O8 H4L CAS 40623-42-5 (1101)
1,2-Diaminoethane-N,N'-di(2-pentane-1,5-dioic acid); (CH2NHCH(COOH)CH2CH2COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	vlt	KNO3	25°C	0.10M	U		K1=20.55	1973GKc (82079)	453
							K(In+HL)=16.12		

****

C12H20N2O8S H4L TEDTA CAS 923-74-0 (3394)
2,2'-Thiobis(ethyliminodiethanoic acid); S(CH2.CH2.N(CH2.COOH)2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	EMF	NaClO4	20°C	0.10M	U		K1=20.26	1967BAc (82462)	454
							K(InL+H)=1.88		
							K(InL+OH)=4.2		
In+++	sp	oth/un	19°C	0.0	U	M	K1=24.1	1966ZAb (82463)	455
							K(FeL+In=InL+Fe)=0.76		

****

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
In+++	EMF	NaClO4	20°C	0.10M	U		K1=25.5	1967BAc (82544)	456
							K(InL+H)=2.1		
							K(InL+OH)=3.90		
In+++	sp	oth/un	19°C	?	U	M	K1=22.67	1965ZAa (82545)	457
							K(FeL+In=InL+Fe)=0.37		

****

C12H21N3O6 H3L NOTA (5589)
1,4,7-Triazacyclononane-N,N',N"-triethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	KCl	25°C	0.10M	C		K1=26.2	1991CMd (82737)	458
							*K(InL)=-6.60		

****

C12H22O12 HL Lactobionic acd CAS 96-82-2 (2487)
4-O-Beta-D-Galactopyranosyl-D-gluconic acid;

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

```
------------------------------------------------------------------------------
In+++      gl  NaNO3  25°C 0.10M C                      1995EOa (82932) 459
                                        B(InH-3L)=-9.53
******************************************************************************
C12H27N3O3              L                          (6685)
1,3,5-Trideoxy-1,3,5-tris(dimethylamino)-cis-inositol;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
In+++      gl  KNO3   25°C 0.10M C        B2=28.46       1995HKb (84072) 460
******************************************************************************
C12H27N3S3              HL    TACN-TM            (6952)
1,4,7-Tris(2-mercaptoethyl)-1,4,7-triazacyclononane;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
In+++      gl  KCl    25°C 0.10M C        K1=36.1        1995MWa (84100) 461
                                        B(InHL)=42.2
******************************************************************************
C13H9N3O7S3           H3L                      CAS 2172-27-2  (5007)
1-(2-Thiazolylazo)-2-naphthol-3,6-disulfonic acid;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
In+++      sp  NaClO4   ?  0.10M U        K1=9.26        1972BZa (84653) 462
******************************************************************************
C13H9N3O8S3           H3L                      CAS 28467-51-8  (898)
2-(2-Thiazolylazo)chromotropic acid;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
In+++      sp  NaClO4 25°C 0.10M U                      1981PSa (84665) 463
                                        K(2In+H2L=In2H-2L+4H)=-8.9
******************************************************************************
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
------------------------------------------------------------------------------
In+++      gl  diox/w 25°C  50%  U        K1=8.93   B2=17.45  1972GDb (85157) 464
                                        B3=24.32
Medium: 50% dioxan, 0.25 M NaClO4
------------------------------------------------------------------------------
In+++      dis NaClO4 25°C 0.10M U        K1=9.2    B2=18.4   1968SAb (85158) 465
                                        B3=26.3
******************************************************************************
C14H8O7S              H3L    DASA              CAS 83-61-4  (950)
1,2-Dihydroxyanthraquinone-3-sulfonic acid, Alizarin Red S;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
```

```
------------------------------------------------------------------------------
In+++      sp  NaClO4  rt  0.10M U                      1971NOc (86737) 466
                                        K(In+2H2L)=11.5
******************************************************************************
C14H9O2F3              HL                       (3429)
1,1,1-Trifluoro-1'-naphthoylacetone;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
In+++      gl  mixed  25°C  46%  U        K1=6.93   B2=13.58  1972BTb (86873) 467
Medium: 46% acetone, 0.1 M Et4ClO4
******************************************************************************
C14H10O7S             H5L                     CAS 30782-99-1  (5045)
1,2,5,10-Tetrahydroxyanthracene-3-sulfonic acid (Leucoalizarin red S)
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
In+++      sp  NaClO4   ?  0.10M U                      1971NPb (86936) 468
                                        K(In+H3L)=8.4
                                        K(In+H4L)=7.0
******************************************************************************
C14H13N5OS             HL                       (5394)
1-(2-Pyridylmethylideneamino)-3-(salicylideneamino)thiourea;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
In+++      sp  mixed  25°C  40%  U                      1985RGa (87616) 469
                                        K1eff=5.05
Medium: 40% DMF, pH 4.5
******************************************************************************
C14H14N4OBr2           HL                     CAS 35601-32-2  (5092)
5-(3,5-Dibromo-2-pyridylazo)-2-ethylamino-4-hydroxy-1-methylbenzene;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
In+++      sp  oth/un   ?     ?  U        K1=6.22        1966GUa (87686) 470
******************************************************************************
C14H15N4OBr            HL                     CAS 14337-50-9  (5095)
5-(5-Bromo-2-pyridylazo)-2-ethylamino-4-hydroxy-1-methylbenzene;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
In+++      sp  oth/un   ?     ?  U                      1966GUa (87765) 471
                                        K(?)=6.62
******************************************************************************
C14H16N4O              HL    PAAC             CAS 13059-69-3  (5067)
5-Ethylamino-4-methyl-2-(2'-pyridylazo)phenol;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
```

```
In+++      sp  oth/un 20°C    ?  U                        1966GNb (88018) 472
                                        K(?)=5.19
********************************************************************************
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
--------------------------------------------------------------------------------
In+++      EMF KNO3   25°C 0.10M C        K1=29.37       1997DFa (88690) 473
                                        K(InL+H)=1.36
                                        K[In(OH)L+H]=8.78
--------------------------------------------------------------------------------
In+++      gl  KNO3   35°C 0.10M U        K1=27.87       1980KHb (88691) 474
--------------------------------------------------------------------------------
In+++      EMF NaClO4 20°C 0.10M U        K1=28.74       1967BAc (88692) 475
                                        K(InL+OH)=5.00
--------------------------------------------------------------------------------
In+++      ix  oth/un   ?  0.50M U        K1=25.05       1963RMb (88693) 476
--------------------------------------------------------------------------------
In+++      dis NaClO4 20°C 0.10M U                       1963STc (88694) 477
                                        B(InL(OH))=33.46
Medium: KClO4
********************************************************************************
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
--------------------------------------------------------------------------------
In+++      sp  R4N.X  25°C 0.50M U        K1=31.17       1999DLa (89288) 478
Medium: 0.5 M Me4NCl
--------------------------------------------------------------------------------
In+++      EMF KNO3   25°C 0.10M C        K1=29.48       1997DFa (89289) 479
--------------------------------------------------------------------------------
In+++      gl  KNO3   35°C 0.10M U        K1=32.82       1980KHb (89290) 480
--------------------------------------------------------------------------------
In+++      dis NaClO4   ?  1.00M U        K1=27.25       1974LKc (89291) 481
                                        K(In+HL)=18.45
                                        K(In+H2L)=11.68
                                        K(In+2H3L)=14.17
Distribution between H2O-phase and 0.1% solution of di-2-ethylhexylphos-
phonic acid in toluol. In-114 used
--------------------------------------------------------------------------------
In+++      sp  NaClO4 25°C 0.10M U        K1=29.6        1972NKa (89292) 482
--------------------------------------------------------------------------------
In+++      EMF NaClO4 20°C 0.10M U        K1=29.0        1967BAc (89293) 483
                                        K(InL+OH)=2.06
--------------------------------------------------------------------------------
In+++      sp  oth/un 19°C    ?  U    M   K1=28.42       1966ZAc (89294) 484
                                        K(In+FeL=InL+Fe)=0.91
--------------------------------------------------------------------------------
```

In+++ ix oth/un ? 0.50M U K1=27.65 1963RMb (89295) 485
****
C14H23O3P HL CAS 13244-67-2 (8312)
Phenylphosphonic acid monooctyl ester;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ dis NaCl RT 2.0M C 1977NAc (89478) 486
K(In+3HL(org)=InL3(org)+3H)=7.4
Method: extraction from 2.0 M NaCl solution into benzene.
****
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
---
In+++ sp oth/un 19°C ? U 1965ZAa (89584) 487
K(In+HL)=9.03
****
C14H25N3O7 H3L (5397)
1-Oxa-4,7,10-triazacyclododecane-4,7,10-triethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl KCl 25°C 0.10M C K1=25.48 1993DSa (90086) 488
K(InL+H)=1.8
K(In(OH)L+H)=9.59
****
C14H28N2O4S2 H4L CAS RH (7915)
N,N'-Bis(2,2-dimethyl-2-mercaptoethyl)ethylenediamine-N,N'-diethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl KNO3 25°C 0.10M C K1=39.8 1996SAb (90469) 489
K(In(OH)L+H)=10.7
Value K1 was reported in this paper incorrectly as 29.8, later (page 2434)
the correct value 39.8 was published
****
C14H32N2O4 L CAS 102-60-3 (2678)
Tetra(2-hydroxypropyl)-N,N,N',N'-diaminoethane;(-CH2.N(CH2.CH(OH).CH3)2)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl NaNO3 25°C 0.10M U K1=8.20 1991DMb (90745) 490
K(InL+OH)=10.40
K(2InL+3OH=In2H-3L2)=32.24
****
C15H10N3OCl HL CAS 16195-35-0 (27)
5-(4-Chlorophenylazo)-8-hydroxyquinoline; Cl.C6H4.N:N.C9H5N.OH

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
In+++      sp  oth/un 25°C 0.10M U        B2=7.86        1978KIa (90948) 491
*************************************************************************
C15H10N3O5ClS         H3L                        (7520)
7-[(2-Hydroxy-5-chlorophenyl)azo]-8-hydroxyquinoline-5-sulfonic
acid;C6H3Cl(OH)N=NC9H4N(OH)(SO3H)
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
In+++      sp  KNO3   25°C 0.10M M        K1=18.62       1997PKb (90955) 492
*************************************************************************
C15H10O10S            H5L    Quercetin S F    CAS 25001-18-7  (1520)
3,5,7,3',4'-Pentahydroxy-5'-sulfoflavone; (HO)3(O)C9H2O.C6H2(SO3H)(OH)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
In+++      sp  NaClO4 20°C 0.10M U        K1=5.58        1989KOa (91035) 493
-------------------------------------------------------------------------
In+++      sp  NaClO4 20°C 0.10M U                       1976KTb (91036) 494
                                        B(InH4L)=7.73
*************************************************************************
C15H11N3O              HL    4-PAN            CAS 7385-98-0  (4060)
1-(2'-Pyridylazo)-4-naphthol;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
In+++      sp  alc/w  20°C  20%  U                       1966GNa (91176) 495
                                      K(In+HL=InL+H)=1.46
Medium: 20% EtOH
*************************************************************************
C15H11N3O              HL    PAN              CAS 85-85-8  (572)
1-(2-Pyridylazo)-2-naphthol; C5H4N.N:N.C10H6.OH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
In+++      sp  NaClO4 25°C 0.20M U  I                    1985HSa (91224) 496
                                      K(In+HL=InL+H)=1.2
Data for various methanol-water mixtures
-------------------------------------------------------------------------
In+++      gl  diox/w 25°C  50%  U        K1=12.19  B2=22.76  1978SMb (91225) 497
Medium: 50% dioxane/H2O, 0.20 M NaClO4.
-------------------------------------------------------------------------
In+++      vlt alc/w  25°C  50%  U        K1=13.05       1973TBa (91226) 498
Medium: 50% EtOH, 0.06 M (HClO4,NaClO4)
-------------------------------------------------------------------------
In+++      sp  alc/w  25°C  20%  U                       1971BRe (91227) 499
                                      K(InOH+L)=15.11
Medium: 20% EtOH, 0.1 M HClO4
*************************************************************************
```

C15H11N3O HL CAS 4312-09-8 (989)
5-Phenylazo-8-hydroxyquinoline; C6H5.N:N.C9H5N.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	sp	oth/un	25°C	0.10M	U		K1=3.77 B3=13.97	1978KIa (91268)	500

****
C15H11N3O4S H2L 1-PAN-4S (7010)
2-(2-Pyridylazo)-1-naphthol-4-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	sp	KNO3	25°C	0.10M	U		K1=9.96 B2=18.04	1980VHa (91326)	501

****
C15H11N3O5S H3L CAS 111248-75-0 (8411)
5-(2'-Hydroxy-5'-phenylazo)-8-quinolinol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	sp	oth/un	RT	dil	C		K1eff=5.15 B2eff=11.28 B3eff=16.17	1985IBa (91342)	502

Medium: Britton and Robinson buffer, pH 6.6
****
C15H12N2O2S HL CAS 29665-05-2 (1405)
1-Phenyl-3-methyl-4-(2-thenoyl)pyrazol-5-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	dis	oth/un	25°C	?	U	M	K(In+3HL=InL3+3H)=0.87 K(InCl+2HL=InL2Cl+2H)=-0.35	1982BTa (91438)	503

****
C15H20N2O7 H4L HBET (6954)
N-(Hydroxobenzyl)diaminoethane-N,N',N'-triethanoic acid;
HO.C6H4.CH2.N(CH2COOH)CH2CH2.N(CH2COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	KCl	25°C	0.10M	C		K1=26.94 B(InHL)=31.52 B(InH2L)=33.84	1995MMa (92170)	504

****
C16H9NO6S H2L CAS 71816-00-7 (9034)
6-Hydroxy-5-oxo-5H-benzo[a]phenoxazine-10-sulfonic acid;

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

In+++ sp KCl 25°C 0.01M C 1980NRa (92638) 505
B2eff=11.46 (pH 5.09)
****
C16H12N2O8S2 H4L Chromotrope 2R CAS 4197-07-3 (2604)
2-(Benzeneazo)-chromotropic acid, Acid Red 29

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl NaClO4 25°C 0.10M U K1=19.80 B2=37.00 1975MPa (93066) 506
****
C16H12N2O11S3 H5L CAS 548-81-2 (5180)
2-(4'-Sulfophenylazo)chromotropic acid,
2-(4-sulfophenylazo)-1,8-dihydroxyaphthalene-3,6-diHSO3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl NaClO4 25°C 0.10M U K1=14.34 B2=27.10 1975MPa (93096) 507
****
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
---
In+++ sp oth/un 25°C ? U 1968GSe (93196) 508
K(?)=9.9
****
C16H13N2O11AsS2 H6L Arsenazo I CAS 520-10-5 (277)
2-(2'-Arsonophenylazo)chromotropic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ sp oth/un 25°C 0.0 U 1973JMa (93258) 509
K(In+H4L=InH2L+2H)=5.6
****
C16H20N4O L PAMB (5164)
4-Ethoxy-2-ethylamino-1-methyl-5-(2-pyridylazo)benzene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ sp oth/un 20°C ? U B2=5.74 1966GNb (94086) 510
****
C16H27O3P HL CAS 52299-33-9 (8311)
Phenylphosphonic acid monodecyl ester;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ dis NaCl RT 2.0M C 1977NAc (94697) 511
K(In+3HL(org)=InL3(org)+3H)=7.6
Method: extraction from 2.0 M NaCl solution into benzene.
****

C16H28N4O8 H4L DOTA CAS 60239-18-1 (1017)
1,4,7,10-Tetraazacyclododecane-1,4,7,10-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	gl	KCl	25°C	0.10M	C		K1=23.9		1991CMb (94906)	512
							K(InL+H)=3.44			

****
C16H29N3O8 H3L (6699)
1,7-Dioxa-4,10,13-triazacyclopentadecane-N,N',N"-triethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	gl	KCl	25°C	0.10M	C		K1=23.56		1993DSa (94976)	513
							K(InL+H)=2.49			

****
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
In+++	dis	oth/un	25°C	var	C	T			1993LYb (95509)	514

K(In+3H2L2(org)=In(HL2)3(org)+3H)=5.85 for extraction from 0.15 M Na2SO4 into octane. For 2.05 M Na2SO4, K=5.32. Data for 5-30 C. K on molal scale.

****
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
In+++	dis	oth/un	25°C	?	U	M			1982BTa (95886)	515
							K(InCl+2HL=InL2Cl+2H)=0.26			
							K(In+3HL=InL3+3H)=1.48			
In+++	dis	NaClO4	21°C	1.0M	C		K1=6.9	B2=14.00	1978NMb (95887)	516
							B3=20.6			

Method: distribution of 114In between 1.0 M NaClO4 solution and benzene.

In+++	dis	oth/un	25°C	0.10M	U				1969ZGa (95888)	517
							B3=20.2			

****
C17H14N2O5S H3L Calmagite CAS 3147-14-6 (2875)
1-(1-Hydroxy-4-methyl-2-phenylazo)-2-naphthol-4-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
In+++	gl	NaClO4	25°C	0.20M	U		K1=17.09	B2=31.96	1978SMb (95928)	518

****
C17H20N4O2 H2L CAS 39965-80-5 (5221)
1,3-Dihydroxy-4-(2-N-methylanabasinyl-alpha-azo)benzene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	sp	oth/un	?	?	U			1967TAa (96305)	519
							B3=14.45		

****

C17H24N4O6 H3L (7349)
3,6,9,15-Tetraazabicyclo[9.3.1]pentadeca-1(15),11,13-triene-3,6,9-triethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	R4N.X	25°C	0.10M	C		K1=21.42	1997DQa (96457)	520
							K(InL+H)=1.8		
							K(In2(OH)L2+H=2InL)=2.1		

Medium: Me4NNO3

****

C17H30N4O8 H4L TRITA CAS 60239-20-5 (1018)
1,4,7,10-Tetraazacyclotridecane-1,4,7,10-tetraethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	KCl	25°C	0.10M	C		K1=23.00	1991CMb (96651)	521
							K(InL+H)=3.33		

K1 by competitive reaction with NTA

****

C18H20N2O6 H4L CAS 10328-28-6 (3501)
Ethylenedinitrilo-N,N'-bis(2'-hydroxyphenyl)-N,N'-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	KCl	25°C	0.10M	C		K1=26.25	1993MMa (97403)	522
							K(InL+H)=3.43		

****

C18H20N2O6 H4L EHPG CAS 10328-28-6 (429)
N,N'-Ethylene-bis-(2-(2'-hydroxyphenyl))glycine; (HOOCCH(C6H4OH)NHCH2.)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	KCl	25°C	0.10M	C		K1=26.68	1989BMd (97432)	523
							K(InL+H)=4.47		
							K(InHL+H)=4.78		
							K(InLOH+H)=10.57		

Data for the racemic ligand. For the meso ligand K1=25.26; K(InL+H)=6.14; K(InHL+H)=3.42; K(InLOH+H)=8.83

In+++	gl	KCl	25°C	0.10M	C		K1=33.0	1984TMc (97433)	524

****

C18H22N4O4 H2L CAS 2444-14-6 (3502)
N,N'-Bis(2-pyridylmethyl)diaminoethane-N,N'-diethanoic acid;

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
In+++      gl  NaCl   25°C 0.16M C        K1=22.6        1997CRa (97545) 525
                                         K(In+L=InL(OH)+H)=15.44
                                         K(InL(OH)+H)=7.16
*************************************************************************
C18H24N6O9            H3L    BAMTPH           CAS 87834-24-0  (5915)
N,N',N"-Tris(3-(hydroxyamino)-3-oxopropyl)-1,3,5-benzenetricarboxamide;
C6H3(CONHCH2CH2CONHOH)3
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
In+++      gl  NaNO3  25°C 0.10M C        K1=22.83       1989EHa (97620) 526
*************************************************************************
C18H28N4O4            H2L                      (7378)
7-Methyl-3,7,11,17-tetraazabicyclo[11.3.1]heptadeca-1(17),13,15-triene-3,11-diethan
oic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
In+++      gl  R4N.X  25°C 0.10M C        K1=18.94       1997CDb (97786) 527
                                         K(InL+H)=2.38
Medium: NMe4NO3
x
*************************************************************************
C18H30N4O12           H6L    TTHA             CAS 869-52-3  (694)
Triethylenetetraaminehexaethanoic acid;((HOOC.CH2)2N.CH2.CH2.N(CH2.COOH).CH2)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
In+++      EMF KNO3   25°C 0.10M C        K1=26.88       1997DFa (98055) 528
                                         K(InL+H)=7.30
                                         K(InL+In)=9.0
                                         K(InHL+H)=2.33
                                         K[In2(OH)L+H]=4.2
-------------------------------------------------------------------------
In+++      gl  KCl    25°C 0.10M C        K1=26.75       1984TMc (98056) 529
*************************************************************************
C18H32N4O8            H4L    TETA             CAS 60239-22-7  (1019)
1,4,8,11-Tetraazacyclotetradecane-1,4,8,11-tetraethanoic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
In+++      gl  KCl    25°C 0.10M C        K1=21.89       1991CMb (98210) 530
                                         K(InL+H)=2.71
*************************************************************************
C18H32N4O9            H4L                      CAS 189282-31-3  (8974)
4,7,10,13-Tetrakis-(carboxymethyl)-1-oxa-4,7,10,13-tetraazacyclopentadecane;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
```

In+++	gl	R4N.X	25°C	0.10M	C	K1=22.88 K(InL+H)=3.88 K(InL+In)=6.57 *K(InL)=-9.56	1999CDb (98258)	531

Medium: 0.10 M NMe4NO3.

****

C19H12O8S H4L Pyrogallol red CAS 85531-30-2 (638)
Pyrogallolsulfonephthalein;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	sp	oth/un	25°C		?	U	K(?)=4.8	1968GSa (99000)	532

****

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
In+++	sp	oth/un	25°C	0.10M	U		K(In(OH)2+H2L)=7.70 K(InOH+2H2L)=9.10	1970BRd (99109)	533

Ligand: Pyrocatechol sulfophthalein

****

C19H28N4O6 H3L CAS 106967-44-6 (8973)
3,7,11-Tris(carboxymethyl)-3,7,11,17-tetraazabicyclo[11.3.1]heptadeca-1(17),13,15-triene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	R4N.X	25°C	0.10M	C		K1=21.16 K(InL+H)=1.85	1998CDa (99409)	534

Medium: 0.10 M Me4NNO3.

****

C20H11NO9S2 H3L CAS 65501-73-7 (8982)
6-Hydroxy-5-dibenzo[a,j]phenoxazone-8,11-disulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	sp	KCl	25°C	0.01M	C		K1eff=5.52 (pH 5.06)	1980NRa (99534)	535

****

C20H11NO9S2 H3L CAS 73847-78-6 (9035)
6-Hydroxy-5-oxo-5H-dibenzo[a,j]phenoxazine-11,13-disulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	sp	KCl	25°C	0.01M	C			1980NRa (99536)	536

B2eff=8.44 (pH 4.90)

****

C20H11NO9S2 H3L CAS 66451-74-9 (8983)
6-Hydroxy-5-oxo-5H-dibenzo[a,j]phenoxazine-9,11-disulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	sp	KCl	25°C	0.01M	C			1980NRa (99538)	537
							K1eff=5.17 (pH 4.95)		

****

C20H13N3O7S H3L Eriochrome Bl T CAS 1787-61-7 (997)
1-(1-Hydroxy-2-naphthylazo)-6-nitro-2-naphthol-4-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	sp	oth/un	20°C	0.10M	U			1980PKa (99567)	538
							K(In+3HL)=19.82		

Medium: Na2SO4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	NaClO4	25°C	0.10M	U		K1=14.36 B2=25.23	1975MPa (99568)	539

****

C20H14N2O5S H3L Solochrome 6B CAS 3564-14-5 (3507)
1-(1-Hydroxy-2-naphthylazo)-2-naphthol-4-sulfonic acid, Mordant Black3, Eriochrome blue-black B;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	NaClO4	25°C	0.10M	U		K1=18.30 B2=32.60	1975MPa (99653)	540

****

C20H14N2O5S H3L EriochrBluBlk R CAS 2538-85-4 (3508)
3-Hydroxy-4-(2-hydroxy-1-naphthylazo)naphthalene-1-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	NaClO4	25°C	0.20M	U		K1=16.48 B2=31.14	1978SMb (99693)	541

****

C20H24N2O6 H4L HBED CAS 3625-89-6 (2208)
N,N'-Di-(2-hydroxybenzyl)-diaminoethane-N,N'-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	sp	R4N.X	25°C	0.50M	U		K1=29.88	1999DLa (100002)	542
							K(InL+H)=3.45		

Medium: 0.5 M Me4NCl

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	KCl	25°C	0.10M	U		K1=27.76	1994MMe (100003)	543
							K(InL+H)=3.48		

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	sp	KCl	25°C	0.10M	M		K1=32.2	1990MMa (100004)	544

```
In+++      nmr none   15°C  0.0  U        K1=39.66       1985TMa (100005) 545
-------------------------------------------------------------------------------
In+++      gl  KCl    25°C 0.10M C        K1=39.66       1984TMb (100006) 546
-------------------------------------------------------------------------------
In+++      gl  KCl    25°C 0.10M C        K1=39.66       1984TMc (100007) 547
*******************************************************************************
C20H24N2O12S2         H6L                      CAS 3625-85-3  (5755)
N,N'-Bis(2-hydroxy-5-sulfobenzyl)-diaminoethane-N,N'-diethanoic acid;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
In+++      sp  KCl    25°C 0.10M M        K1=29.37       1990MMa (100035) 548
                                         K(InL+H)=2.82
                                         K(In(OH)L+H=InL+H)=10.82
-------------------------------------------------------------------------------
In+++      gl  KCl    25°C 0.10M C        K1=29.37       1989MSc (100036) 549
                                         K(InL+H)=2.82
                                         K(InH-1L+H)=10.82
-------------------------------------------------------------------------------
In+++      gl  KCl    25°C 0.10M C        K1=37.40       1984TMb (100037) 550
                                         K(InL+2H)=5.31
*******************************************************************************
C20H26N4O6            H4L    ENDA-HP            (6746)
N,N'-Bis(3-hydroxy-6-methyl-2-pyridylmethyl)diaminoethane-N,N'-diethanoic acid;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
In+++      sp  KCl    25°C 0.10M C        K1=28.02       1992MSa (100331) 551
                                         K(InL+H)=5.98
                                         K(InHL+H)=4.85
*******************************************************************************
C20H30N2O8P2          H4L                      CAS 112827-88-0  (8105)
N,N'-Bis(2-hydroxybenzyl)diaminoethane-N,N'-bis(methylenephosphonic acid monomethyl
ester);
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
In+++      gl  KCl    25°C 0.10M C        K1=28.12       1984TMd (100415) 552
                                         K(InOHL+H)=6.63
*******************************************************************************
C20H30N4O8S2          H2L                      CAS 173102-22-2  (3839)
1,10-Bis(2-hydroxy-5-sulfonylphenyl)-1,4,7,10-tetraazadecane;
(C6H3(OH)(HSO3)CH2NHCH2CH2NHCH2)2
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
In+++      gl  NaCl   25°C 0.16M C        K1=24.54       1996WCa (100426) 553
*******************************************************************************
C20H36O6                L    DiCy-18-crown-6  CAS 16069-36-6  (1653)
2,3:11,12-Dicyclohexyl-1,4,7,10,13,16-hexaoxacyclooctadecane;
```

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ dis non-aq 25°C 100% U 1995BSa (100651) 554
K(In(HA)X+L=Fe(HA),L,X)=4.43
Medium:CHCl3. Data for host-guest associations. H3A: desferrioxamine. X=ClO4
L: cis-syn-cis and cis-anti-cis mixture. Also data for syn-L, anti-L
****
C21H21NS3 L CAS 215432-65-8 (7646)
Tris(2-mercaptobenzyl)amine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl alc/w 25°C 70% C K1=21.2 1998MMa (101163) 555
K(InL+H)=1.8
Medium: 70% (v/v) EtOH/H2O, 0.1 M KCl.
****
C21H22N4O HL CAS 56932-30-0 (5308)
1-Hydroxy-2-(2-N-methylanabasinyl-alpha-azo)naphthalene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ sp oth/un ? ? U B2=18.5 1967PAa (101202) 556
****
C21H25N3O7 H4L (6563)
N-(2-Hydroxybenzyl)-N'-(pyridoxyl)ethylenediamine-N,N'-diethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ sp KCl 25°C 0.10M C K1=28.97 1991MSb (101274) 557
K(InL+H)=6.21
K(InHL+H)=2.89
****
C22H23N2O8Cl H2L Aureomycin CAS 56235-18-8 (3515)
Chlorotetracycline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ vlt NaClO4 20°C 0.10M U T H 1983SSh (101761) 558
K(In+HL)=8.45
K(In+2HL)=14.74
Method: polarography. Also data for 30 and 40 C. DH(In+HL)=20.2 kJ mol-1,
DS(In+HL)=92.9 J K-1 mol-1; DH(In+2HL)=42.1, DS(In+2HL)=138.4.
****
C22H24N2O8 H2L Tetracycline CAS 60-54-8 (2201)
Tetracycline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ vlt NaClO4 20°C 0.10M U T H 1983SSh (101818) 559

K(In+HL)=8.65
K(In+2HL)=15.11
Method: polarography. Also data for 30 and 40 C. DH(In+HL)=21.9 kJ mol-1, DS(In+HL)=90.7 J K-1 mol-1; DH(In+2HL)=45.6, DS(In+2HL)=133.5.

In+++ vlt NaClO4 20°C 0.10M U T H 1983SSh (101819) 560
K(In+HL)=8.31
K(In+2HL)=14.63
Method: polarography. Also data for 30 and 40 C. DH(In+HL)=18.4 kJ mol-1, DH(In+2HL)=38.2. Ligand defined as Dimethylchlorotetracycline

****

C22H24N2O9 H2L Oxotetracycline CAS 79-57-2 (2202)
Oxytetracycline, 5-Hydroxy-tetracycline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	vlt	NaClO4	20°C	0.10M	U	T H		1983SSh (101884)	561
							K(In+HL)=8.54		
							K(In+2HL)=14.83		

Method: polarography. Also data for 30 and 40 C. DH(In+HL)=21.9 kJ mol-1, DS(In+HL)=88.6 J K-1 mol-1; DH(In+2HL)=43.9, DS(In+2HL)=134.1.

****

C22H26N4O8 H4L (5526)
N,N'-Dipyridoxylethylenediamine-N,N'-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	KCl	25°C	0.10M	C		K1=26.54	1989MSc (101960)	562
							K(InL+H)=7.15		
							K(InHL+H)=6.34		
							K(InL=InH-1L+H)=-11.21		
In+++	nmr	none	15°C	0.0	U		K1=36.86	1985TMa (101961)	563
							K(InL+H)=7.96		
							K(InHL+H)=6.68		
In+++	gl	KCl	25°C	0.10M	C		K1=36.89	1984TMb (101962)	564
							K(InL+H)=7.96		
							K(InHL+H)=6.68		
In+++	gl	KCl	25°C	0.10M	C		K1=36.89	1984TMc (101963)	565
							K(InL+H)=7.96		
							K(InHL+H)=6.68		

****

C22H32N2O2 HL CAS 58248-65-0 (1406)
1-Phenyl-3-methyl-4-lauroylpyrazol-5-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	dis	oth/un	25°C	?	U	M		1982BTa (102199)	566

K(In+3HL=InL3+3H)=1.03
K(InCl+2HL=InL2Cl+2H)=-0.45
****
C22H34N2O8P2 H4L CAS 92278-41-6 (8106)
N,N'-Bis(2-hydroxybenzyl)diaminoethane-N,N'-bis(methylenephosphonic acid monoethyl ester);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	KCl	25°C	0.10M	C		K1=28.09	1984TMd (102218)	567
							K(InOHL+H)=6.61		

****
C22H34N4O8S2 H2L CAS 173102-23-3 (3949)
1,12-Bis(2-hydroxy-5-sulfophenyl)-1,5,8,12-tetraazadodecane;
(C6H3(OH)(HSO3)CH2NHC3H6NHCH2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	NaCl	25°C	0.16M	C		K1=24.56	1996WCa (102226)	568

****
C22H41N5O8 H3L CAS 189687-33-0 (7103)
Diethylenetriamine-N,N',N"-triethanoic acid-N,N"-bis(butylamide);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	KNO3	25°C	0.10M	C		K1=22.7	1995GDa (102389)	569
							K(InL+H)=1.9		
							*K(InL)=-10.2		

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	sp	oth/un	25°C	?	U			1964MDb (102561)	570
							K(?)=4.4		

****
C23H30N2O6 H4L CAS 132750-98-2 (6543)
N,N'-Trimethylenebis(2-(2-hydroxy-3,5-dimethylphenyl)glycine);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	sp	KCl	25°C	0.10M	C		K1=25.99	1991BMa (102757)	571
							K(InL+H)=4.26		

For racemic ligand. For meso form: K1=26.60, K(InL+H)=5.20
****
C24H29N3O12S3 H6L (7355)
1,2,3-Tris((2-hydroxy-5-sulfobenzyl)amino)propane;

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

---
In+++ gl NaCl 25°C 0.16M C K1=27.56 1997COa (103018) 572
****
C24H31N3O8 H3L CAS 35369-55-2 (6972)
N,N"-Bis(2-hydroxybenzyl)-2,5,8-triazanonane-N,N',N"-triethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ gl KCl 25°C 0.10M C K1=28.96 1994MMf (103058) 573
K(InL+H)=8.37
K(InHL+H)=5.84
K(InH2L+H)=4.69
****
C24H32N2O6 H3L Me4-HBED (6507)
N,N'-Bis(2-hydroxy-3,5-dimethylbenzyl)ethylenediamine-N,N'-diethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ sp KCl 25°C 0.10M M K1=30.72 1990MMa (103064) 574
****
C24H33N5O8 H5L (6747)
N,N"-Bis(3-hydroxy-6-methyl-2-pyridylmethyl)diethylenetriamine-N,N'.N"-triethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ sp KCl 25°C 0.10M C K1=25.70 1992MSa (103204) 575
K(InL+H)=8.87
K(InHL+H)=5.55
K(InH2L+H)=4.42
****
C24H34N2O5 H3L (6509)
N,N'-Bis(2-hydroxy-3,5-dimethylbenzyl)-N-(2-hydroxyethyl)-diaminoethane-N'-ethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ sp KCl 25°C 0.10M M K1=26.30 1990MMa (103215) 576
K(In(OH)L+H=InL+H2O)=8.37
****
C24H34N3O6 H3L CAS 134627-54-6 (6564)
N-(2-Hydroxy-3,5-dimethylbenzyl)-N'-((3-hydroxy-1,2,5-trimethyl-4-pyridinyl)methyl) EDDA;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
In+++ sp KCl 25°C 0.10M C K1=27.82 1991MSb (103219) 577
****
C24H36N4O8 H2L CAS 134653-17-1 (6565)
N,N'-Bis(1,2-dimethyl-3-hydroxy-5-hydroxymethyl)-4-pyridinyl)-methyl)diaminoethaned

iethanoic acid

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	sp	KCl	25°C	0.10M	C		K1=21.47	1991MSb (103271)	578

C25H32N6 L CAS 132177-84-5 (536)
3,11-Bis(2-pyridylmethyl)-3,7,11,17-tetraazabicyclo[11.3.1]heptadeca-1(17),13,15-triene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	KNO3	25°C	0.10M	C		K1=14.01	1999CDa (103745)	579

C25H48N6O8 H3L Desferrioxamine CAS 70-51-9 (2488)
Desferrioxamine B; NH2.((CH2)5.NOH.CO.C2H4.CO.NH)2.(CH2)5.NOH.CO.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	KCl	25°C	0.10M	C		K1=21.39	1989EHa (103817)	580
							K(In+HL)=20.60		
							K(InHL+H)=3.15		
							K(InL+H)=10.00		

C26H33N3O12S3 H6L (7354)
1,1,1-Tris(((2-hydroxy-5-sulfobenzyl)amino)methyl)ethane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	NaCl	25°C	0.16M	C		K1=28.49	1997COa (104065)	581

C26H48N6O10 H4L CAS 207388-25-8 (7648)
Triethylenetetramine-N,N,N',N",N"',N"'-hexaethanoic acid NN-bis(butanamide);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	R4N.X	25°C	0.10M	C		K1=23.69	1998ACc (104307)	582
							K(InL+H)=4.68		
							K(InHL+H)=1.71		
							K(InL+In)=5.66		
							K(In2L(OH)+H)=2.38		

Medium: N(CH3)4NO3. K(In2L(OH)2+2H)=7.33.

C27H36N4O12S3 H6L (7353)
Tris(((2-hydroxy-5-sulfobenzyl)amino)ethyl)amine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	NaCl	25°C	0.16M	C		K1=29.3	1997COa (104565)	583

C27H36N6O3 H3L TACN-HP (6748)
N,N',N"-Tris(3-hydroxy-6-methyl-2-pyridylmethyl)-1,4,7-triazacyclononane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	sp	KCl	25°C	0.10M	C		K1=28.02	1992MSa (104574)	584
							K(InL+H)=5.93		
							K(InHL+H)=5.13		
							K(InH2L+H)=4.50		
							K(In+H3L)=10.93		
							*K(InL)=-10.42		

****
C28H30N4O8S2 H2L CAS 173102-11-9 (4197)
N,N'-Bis(2-hydroxy-5-sulfophenyl)-N,N'-bis(methylpyridyl)diaminoethane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	NaCl	25°C	0.16M	C		K1=34.85	1996WCa (104737)	585

****
C28H31N3O18S3 H9L 3,4-LICAMS CAS 71659-79-5 (5469)
N,N',N''-Tris(2,3-dihydroxy-5-sulfonatobenzoyl)-1,5,10-triazadecane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	KNO3	25°C	0.10M	U		K1=39	1982PWa (104746)	586
							K(In+H3L=InL+3H)=4.3		
							K(InL+H)=5.66		
							K(InHL+H)=5.29		

****
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
In+++	sp	KCl	25°C	0.10M	C			1991LRa (105195)	587
							K(InL+H)=4.02		
							K(InH3L+H)=3.1		

****
C30H27N3O18S3 H9L TRIMCAMS CAS 77069-63-7 (5468)
1,3,5-Tris(2,3-dihydroxy-5-sulfobenzoyl)carbamido)benzene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	KNO3	25°C	0.10M	U		K1=39	1982PWa (105207)	588
							K(In+H3L=InL+3H)=4.7		
							K(InL+H)=4.92		
							K(InHL+H)=4.70		

****
C30H44N2O6 H3L (6508)
N,N'-Bis(2-hydroxy-3-methyl-5-tert-butylbenzyl)diaminoethane-N,N'-diethanoic acid;

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------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
In+++      sp  KCl    25°C 0.10M M        K1=31.26       1990MMa (105317) 589
******************************************************************************
C30H45N4O6P3          H3L                     CAS 182250-11-9  (8686)
Tris(4-(phenylphosphinato)-3-methyl-3-azabutyl)amine;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
In+++      nmr NaCl   25°C 0.16M C                        1996LRc (105323) 590
                                          K(In+2H3L)>=5.4
Method: 31P nmr. Medium pH 1.5.
******************************************************************************
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
------------------------------------------------------------------------------
In+++      sp  oth/un 25°C 0.10M U        K1=8.95   B2=16.11  1990ZCa (105473) 591
------------------------------------------------------------------------------
In+++      sp  oth/un 25°C    u  U        K1=8.94   B2=16.10  1990ZCb (105474) 592
------------------------------------------------------------------------------
In+++      sp  oth/un   ?     ?  U                           1969BUa (105475) 593
                                          K(In+H3L)=5.23
------------------------------------------------------------------------------
In+++      sp  oth/un 25°C    ?  U                           1966DMd (105476) 594
                                          K(?)=5.0
******************************************************************************
C31H37N7                L                     CAS 259259-40-0  (537)
3,7,11-Tris(2-pyridylmethyl)-3,7,11,17-tetraazabicyclo[11.3.1]heptadeca-1(17),13,15
-triene;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
In+++      gl  KNO3   25°C 0.10M C        K1=14.10       1999CDa (105538) 595
                                          K(InL+H)=2.08
******************************************************************************
C33H45N3O3            H3L                       (6764)
N,N',N''-Tris(3,5-dimethyl-2-hydroxybenzyl)-1,4,7-triazacyclononane;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
In+++      sp  alc/w  25°C  75%  U        K1=33.99       1991CMc (105958) 596
Medium: 75% v/v EtOH/H2O
******************************************************************************
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
In+++	sp	oth/un	25°C	0.10M	C			1997ASa (106606)	597
							K1eff=5.53		
							K2eff=3.89		

Medium: 0.10 M acetate buffer, pH 5.0.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	sp	NaClO4	25°C	0.10M	U			1969PKd (106607)	598
							B(InH2L)=38.18		
							K(In+H2L)=13.60		
							K(InH2L+H4L)=5.48		

****

C40H47N3O10 H7L CAS 86728-01-0 (5503)

Bis(3-(((2-hydroxy-5-methylbenzyl)amino)methyl)-2-hydroxy-5-methylbenzyl)amine-triethanoic acid

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	gl	oth/un	25°C	0.10M	U		K1=16.65	1983YMa (106788)	599
							K(InH-1L+H)=5.73		
							K(InH-2L+H)=7.17		
							K(InH-3L+H)=9.44		
							K(InL+H)=3.21		

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Polymer L (3532)

Human transferrin;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
In+++	sp	KNO3	25°C	0.10M	C			1994HCa (108215)	600
							Keff(In+HCO3L)=18.30		
							Keff(In+InHCO3L)=16.44		
							Keff(In+L)=10.0		

At pH 7.4 in 0.1M N-(2-hydroxyethyl)piperazine-N'-2-ethanesulfonic acid, (HEPES) and 5mM HCO3

REFERENCES

2001NCa J Narbutt,M Czerwinski,J Krejzler; Eur.J.Inorg.Chem.,3187 (2001)
2001RSa A Ricciu,F Secco,M Venturini,B Garcia; Chem.Eur.J.,7,4613 (2001)
1999CDa J Costa,R Delgado,M Drew,V Felix; J.Chem.Soc.,Dalton Trans.,4331 (1999)
1999CDb M Cabral,R Delgado; Polyhedron,18,3479 (1999)
1999DLa R M Dyson,G A Lawrance et al; Polyhedron,18,3243 (1999)
1998ACc B Achour,J Costa,F Nepveu; Inorg.Chem.,37,2729 (1998)
1998CDa J Costa,R Delgado,M Drew,V Felix; J.Chem.Soc.,Dalton Trans.,1063 (1998)
1998MMa R Motekaitis,A Martell,S Koch; Inorg.Chem.,37,5902 (1998)
1997ASa H Abdollahi,M Shamsipur; J.Sci.I.R.Iran,8,28 (1997)
1997CDb J Costa,R Delgado,M Figueira; J.Chem.Soc.,Dalton Trans.,65 (1997)
1997COa P Caravan,C Orvig; Inorg.Chem.,36,236 (1997)
1997CRa P Caravan,S Rettig,C Orvig; Inorg.Chem.,36,1306 (1997)

1997DFa R Delgado,M Figueira,S Quintino; Talanta,45,451 (1997)
1997DQa R Delgado,S Quintino,M Teixeira; J.Chem.Soc.,Dalton Trans.,55 (1997)
1997PKb L Piao,F Kai,M Hirohata; Polyhedron,16,363 (1997)
1997YSa A Yuchi,T Sato et al; Anal.Chem.(USA),69,2941 (1997)
1996LMa Y Li,A Martell,R Hancock et al; Inorg.Chem.,35,404 (1996)
1996LRc M Lowe,S Rettig,C Orvig; J.Am.Chem.Soc.,118,10446 (1996)
1996SAb Y Sun,C Anderson,T Pajeau et al; J.Med.Chem.39,458 (1996)
1996TSa R Takahashi,H Suzuki,S Ishiguro; J.Chem.Soc.,Faraday Trans.,92,2715 (1996)
1996WCa E Wong,P Caravan,S Liu et al; Inorg.Chem.,35,715 (1996)
1995BSa I Batinic-Haberle,I Spasojevic et al; J.Chem.Soc.,Dalton Trans.,2503 (1995)
1995EOa G Escandar,A Olivera et al; J.Chem.Soc.,Dalton Trans.,799 (1995)
1995GDa C Geraldes,R Delgado,A Urbano; J.Chem.Soc.,Dalton Trans.,327 (1995)
1995HKb K Hegetschweiler,T Kradolfer et al.; Chem.Eur.J.,1,77 (1995)
1995LMa Y Li,A Martell; Inorg.Chim.Acta,231,159 (1995)
1995MMa R Ma,R Motekaitis,A Martell; Inorg.Chim.Acta,233,137 (1995)
1995MWa R Ma,M Welch,J Reibenspies,A Martell; Inorg.Chim.Acta,236,75 (1995)
1995SMa Y Sun,R Motekaitis,A Martell,M Welch; Inorg.Chim.Acta,228,77 (1995)
1995SMb Y Sun,R Motekaitis,A Martell; J.Coord.Chem.,36,235 (1995)
1995TBa R Tokoro,M Bertotti,L Angnes; Can.J.Chem.,73,232 (1995)
1994FSa D Ferri,F Salvatori,E Vasca,R Miranda; Ann.Chim.(Rome),84,141 (1994)
1994HCa W Harris,Y Chen,K Wein; Inorg.Chem.,33,4991 (1994)
1994MMe R Ma,R Motekaitis,A Martell; Inorg.Chim.Acta,224,151 (1994)
1994MMf R Ma,I Murase,A Martell; Inorg.Chim.Acta,223,109 (1994)
1994MRa R Ma,J Reibenspies,A Martell; Inorg.Chim.Acta,223,21 (1994)
1993BRa J Bollinger,D Roundhill; Inorg.Chem.,32,2821 (1993)
1993DSa R Delgado,Y Sun,R Motekaitis et al; Inorg.Chem.,32,3320 (1993)
1993LMc Y Li,A Martell; Inorg.Chim.Acta,214,103 (1993)
1993LYb X-Z Liu,J-Z Yang,X-H Ding; J.Chem.Thermodyn.,25,861 (1993)
1993MMa R Ma,A Martell; Inorg.Chim.Acta,209,71 (1993)
1992CMb E Clarke,A Martell; Inorg.Chim.Acta,191,57 (1992)
1992CMc E Clarke,A Martell; Inorg.Chim.Acta,196,185 (1992)
1992MSa R Motekaitis,Y Sun,A Martell; Inorg.Chim.Acta,198-200,421 (1992)
1992PPa M Pesavento,A Profumo; J.Chem.Soc.,Perkin Trans.II,107 (1992)
1992SKa B Sekhon,J Kaur; J.Indian Chem.Soc.,69,582 (1992)
1991BMa C Bannochie,A Martell; Inorg.Chem.,30,1385 (1991)
1991CMb E Clarke,A Martell; Inorg.Chim.Acta,190,27,37 (1991)
1991CMc E Clarke,A Martell; Inorg.Chim.Acta,186,103 (1991)
1991CMd E Clarke,A Martell; Inorg.Chim.Acta,181,273 (1991)
1991DMb T Duma,F Marsicano,R Hancock; J.Coord.Chem.,23,221 (1991)
1991HLa G Hollingshed,G Lawrance,M Maeder; Polyhedron,10,409 (1991)
1991LRa L Loomis,K Raymond; Inorg.Chem.,30,906 (1991)
1991MSb R Motekaitis,Y Sun,A Martell et al; Inorg.Chem.,30,2737 (1991)
1991ZRa Z Zhang,S Rettig,C Orvig; Inorg.Chem.,30,509 (1991)
1990CLa D Clevette,D Lyster et al; Inorg.Chem.,29,667 (1990)
1990EAa F Erim,E Avsar,B Basaran; J.Coord.Chem.,21,209 (1990)
1990HWa R Hancock,P Wade,M Ngwenya; Inorg.Chem.,29,1968 (1990)
1990MMa R Motekaitis,A Martell,M Welch; Inorg.Chem.,29,1463 (1990)
1990ZCa Zou Shifu,Cao Wei,Wen Shiqi; Chem.J.of Chin.Univ.,11,240 (1990)

1990ZCb S Zou,W Cao et al; Chem.J.of Chin.Univ.,240 (1990)
1989BMd C Bannochie,A Martell; J.Am.Chem.Soc.,111,4735 (1989)
1989BTa M Bertolli,R Tokoro; Talanta,36,424 (1989)
1989EHa A Evers,R Hancock,A Martell et al; Inorg.Chem.,28,2189 (1989)
1989INa H Ishii,S Numao,T Odashima; Bull.Chem.Soc.Jpn.,62,1817 (1989)
1989KOa M Kopacz; Pol.J.Chem.,63,19 (1989)
1989LCa T Lutz,D Clevette,S Rettig et al; Inorg.Chem.,28,715 (1989)
1989MAa E Manzurola,A Apelblat et al; J.Chem.Soc.,Faraday Trans.I,85,373 (1989)
1989MSc R Motekaitis,Y Sun,A Martell; Inorg.Chim.Acta,159,29 (1989)
1989TBa I Toth,E Brucher,L Zekany,V Veksin; Polyhedron,8,2057 (1989)
1988AFa M Aguilar,A Florido,S Alegret et al; Polyhedron,7,5 (1988)
1988KRc P Kamannarayana,K Raghavachari; Indian J.Chem.,27A,1010 (1988)
1988LIa S Licht; J.Electrochem.Soc.,135,2971 (1988)
1988MFb M Montemayor,E Fatas; J.Electroanal.Chem.,246,271 (1988)
1987CSb C Chang,V Sekhar,B Garg; Inorg.Chim.Acta,135,11 (1987)
1987KSb R Kulshahrestha,S Sharma,M Singh; Indian J.Chem.,26A,845 (1987)
1987LPb S Lavale,K Pitre; J.Indian Chem.Soc.,64,147 (1987)
1987PGa D Puchalska,W Grzybkowski,D Wojcik; J.Chem.Soc.,Faraday Trans.I,83,1253 (1987)
1987USa N Ulakhovich,L Shaidarova,G Boudnikov; Zh.Neorg.Khim.,32,679(381) (1987)
1987YHa A Yuchi,H Hotta,H Wada,G Nakagawa; Bull.Chem.Soc.Jpn.,60,1379 (1987)
1986TBa I Toth,E Brucher,L Zekany; Magyar Kem.Foly.,92,398 (1986)
1985DAb A Deme,J Ashaks et al; Chem.Zvesti,39,649 (1985)
1985HSa B Perlmutter-Hayman,F Secco,M Venturini; Inorg.Chem.,24,3828 (1985)
1985IBa Y Issa,S Badawy,L Shafik; Egypt.J.Chem.,28,383 (1985)
1985KBa P Kondziela,J Biernat; Pol.J.Chem.,59,665 (1985)
1985MBa E Mentasti,C Baiocchi et al; J.Chem.Soc.,Dalton Trans.,2615 (1985)
1985MKc E Medvedeva,G Kodina et al; Koord.Khim.,11(2)171 (1985)
1985MMa F Mulla,F Marsicano,B Nakani et al; Inorg.Chem.,24,3076 (1985)
1985RGa D Rosales,G Gonzalez et al; Talanta,32,467 (1985)
1985SAa N Skorik,A Artish; Zh.Neorg.Khim.,30,1994(1130) (1985)
1985TMa C Taliaferro,A Martell; Inorg.Chem.,24,2408 (1985)
1984KJa E Krzeszowska,Z Jablonski; Pol.J.Chem.,58,355 (1984)
1984PGa J Pingarron,R Gallego,P Sanchez-Batanero; Bull.Soc.Chim.Fr.,I,115 (1984)
1984TMb C Taliaferro,A Martell; Inorg.Chim.Acta,85,9 (1984)
1984TMc C H Taliaferro,R Motekaitis,A Martell; Inorg.Chem.,23,1188 (1984)
1984TMd C Taliaferro,A Martell; J.Coord.Chem.,13,249 (1984)
1984TZa I Toth,L Zekany,E Brucher; Polyhedron,3,871 (1984)
1983JKb S Jain,R Kapoor; Inorg.Chim.Acta,78,93 (1983)
1983KDd G Kodina,N Dyatlova et al; Koord.Khim.,9,1349 (1983)
1983PBa R Parkash,R Bala; Indian J.Chem.,22A,716 (1983)
1983SSh N Sachan,K Suyan,C Chandel,C Gupta; J.Indian Chem.Soc.,60,741 (1983)
1983TUa D Tuck; Pure & Appl.Chem.,55,1477 (1983)
1983YJa Yan Qingyu,Jiang Ning,Z g,X y; Acta Chimica Sinica,518 (1983)
1983YMa I Yoshida,R Motekaitis,A Martell; Inorg.Chem.,22,2795 (1983)
1982AVb E Avsar; Acta Chem.Scand.,A36,627 (1982)
1982BEa P Brown,J Ellis,R Sylva; J.Chem.Soc.,Dalton Trans.,1911 (1982)
1982BFa G Biedermann,D Ferri; Acta Chem.Scand.,A36,611 (1982)
1982BTa J Brunette,M Taheri et al; Polyhedron,1,457 (1982)
1982PSb B Perlmutter-Hayman,F Secco et al; J.Chem.Soc.,Dalton Trans.,1945 (1982)

1982PWa V Pecoraro,G Wong,K Raymond; Inorg.Chem.,21,2209 (1982)
1982RDa A Redkin,L Dubovitskaya et al; Zh.Neorg.Khim.,27,627(352) (1982)
1982SAa Y Sasaki; Bunseki Kagaku,31,E107 (1982)
1982SLc J Stary,J Liljenzin; Pure & Appl.Chem.,54,2557 (1982)
1982TTa Ya Turyan,I Tikhonova,N Strizhov; Zh.Obshch.Khim.,52,1717 (1982)
1981MNb M Muzumdar,B Nemade; J.Electrochem.Soc.India,30,316 (1981)
1981PSa M Pesavento,T Soldi,C Riolo et al; Ann.Chim.(Rome),71,371 (1981)
1981SBf R Saxena,S Bansal; J.Electrochem.Soc.India,30,332 (1981)
1981YRa Y Yakovlev,L Ravlenko,O Barsukova; Zh.Neorg.Khim.,26,1516 (1981)
1981YRb Y Yakovlev,L Ravlenko; Zh.Neorg.Khim.,26,2657 (1981)
1980BPb S Bhasin,O Parkash; J.Indian Chem.Soc.,57,282 (1980)
1980FIa L Filatova; Zh.Neorg.Khim.,25,2673(1474) (1980)
1980HSb Y Hasegawa,T Shimada, M Niitsu; J.Inorg.Nucl.Chem.,42,1487 (1980)
1980JKa S Jain,R Kapoor; Indian J.Chem.,19A,351 (1980)
1980KHb M Khan,A Hussain; Indian J.Chem.,19A,44,50 (1980)
1980NRa T Nguyen,E Ruzicka; Coll.Czech.Chem.Comm.,45,703 (1980)
1980PKa I Pyatnitskii,L Kolomiets,A Gargalyk; Zh.Neorg.Khim.,25,2410(1333)
(1980)
1980PKc S Prabhu,S Kelkar,B Nemade; J.Electrochem.Soc.India,29,178 (1980)
1980VHa P Voznica,J Havel,L Sommer; Coll.Czech.Chem.Comm.,45,54 (1980)
1980YRa Y Yakovlev,L Ravlenko; Zh.Neorg.Khim.,25,1211 (1980)
1979SKa I Salma,V Kravtsov et al; Elektrokhim.,15,276 (1979)
1979SMa V Smirnov; Zh.Fiz.Khim.,53,1841 (1979)
1979SMb V Smirnov; Zh.Fiz.Khim.,53,1836 (1979)
1978ISa B Iofa,C Sorilla,H Morin; Zh.Neorg.Khim.,23.2350(1296) (1978)
1978KIa M Khater,Y Issa et al; Anal.Chim.Acta,98,127 (1978)
1978KSa N Kojima,Y Sugiura,H Tanaka; Bunseki Kagaku,26,579 (1978)
1978KSc N Kojima,Y Sugiura,H Tanaka; Chem.Pharm.Bull.,26,440 (1978)
1978NMb O Navratil,A Malach; Coll.Czech.Chem.Comm.,43,2890 (1978)
1978PBb O Parkash,S Bhasin,D Jain; J.Less Common Metals,60,179 (1978)
1978SMb R Sarin,K Munshi; J.Indian Chem.Soc.,55,512 (1978)
1978THc M Thompson; Anal.Chim.Acta,98,357 (1978)
1978TLb Y Turyan,I Lovinov,N Strizov; Zh.Neorg.Khim.,23,1970(1082) (1978)
1977NAc O Navratil; Collec.Czech.Chem.Commun.,42,2778 (1977)
1977SMc R Sarin,K Munshi; Indian J.Chem.,15A,327 (1977)
1977SPc R Sindhu,K Pandeya,R Singh; Monatsh.Chem.,108,361 (1977)
1976DGd N Dutt,S Gupta; Indian J.Chem.,14A,1000 (1976)
1976GDc I Gorelov,V Drozdova,M Kolosova; Zh.Anal.Khim.,31,697 (1976)
1976KSe N Kojima,Y Sugiura,H Tanaka; Bull.Chem.Soc.Jpn.,49,1294 (1976)
1976KTb M Kopacz,J Terpilowski,R Manczyk; Rocz.Chem.50,3 (1976)
1975KBd P Kondziela,J Biernat; Electroanal.Chem.,61,281 (1975)
1975KId Y Kawai,T Imamura,M Fujimoto; Bull.Chem.Soc.Jpn.,48,3142 (1975)
1975KLb G Kodina,V Levin,V Novoselov; Zh.Neorg.Khim.,20,2049(1140) (1975)
1975KSd N Kojima,Y Sugiura,H Tanaka; Bull.Chem.Soc.Jpn.,49,3023 (1975)
1975KYa F Kul'ba,Yu Yakovlev,D Zenchenko,; Zh.Neorg.Khim.,20,1781 (1975)
1975KZa F Kul'ba,D Zenchenko,Yu Yakovlev; Zh.Neorg.Khim.,20,2372 (1975)
1975MPa S Mushran,O Prakash,U Srivastava; Analusis,3,571 (1975)
1975VMa V Vajgand,T Mihajlovic; Talanta,22,803 (1975)
1974FGc L Filatova,G Galochkina; Radiokhim.,16,601(E:591) (1974)
1974FKa L Filatova,T Kourdumova; Zh.Neorg.Khim.,19,3190(1746) (1974)

1974GOc V Gordienko; Zh.Obshch.Khim.,44,885(E:853) (1974)
1974HSb Y Hasegawa,R Sekine; J.Inorg.Nucl.Chem.,36,421 (1974)
1974KYa F Kulba,Y Yakovlev,D Zinchenko; Zh.Neorg.Khim.,19,923(E:502) (1974)
1974LKc V Levin,G Kodina; Zh.Neorg.Khim.,19,2060(1128) (1974)
1974MId M Mihailov; J.Inorg.Nucl.Chem.,36,107 (1974)
1974NDa R Nanda,A Dash; J.Inorg.Nucl.Chem.,36,1595 (1974)
1974VKb V Vasilev,E Kozlovskii; Zh.Neorg.Khim.,19,1481(E:971) (1974)
1973BIb J Bishop; Anal.Chim.Acta,63,305 (1973)
1973GKc I Gorelov,M Kolosova; Zh.Anal.Khim.,28,489 (1973)
1973GKd I Gorelov,M Kolosova,A Samsonov; Zh.Anal.Khim.,28,1080 (1973)
1973JMa A Joshi,K Munshi; Microchem.J.,18,277 (1973)
1973KMc M Komatsu,Y Masuda,S Misumi; Nippon Kagaku Kaishi,1461 (1973)
1973LAb S Lasztity; Radiochem.Radioanal.Lett.,14,277 (1973)
1973RTb R Ramakrishna,R Thuraisingham; J.Inorg.Nucl.Chem.,35,2805 (1973)
1973SLc V Samoilenko,V Lyashenko; Zh.Neorg.Khim.,18,2998(E:1578) (1973)
1973SLd V Samoilenko,V Lyashenko; Zh.Neorg.Khim.,18,2968(E:1578) (1973)
1973SMb R Sarin,K Munshi; J.Indian Chem.Soc.,50,307 (1973)
1973SMc R Sarin,K Munshi; J.Inorg.Nucl.Chem.,35,201 (1973)
1973SSb M Sudarsanan,A Sundaram; Curr.Sci.,42,88 (1973)
1973TBa V Toropova,G Budnikov,V Maistrenko et al; Zh.Obshch.Khim.,43,10,2126
(1973)
1972BTb K Bowden,G Tanner,D Tuck; Can.J.Chem.,50,2622 (1972)
1972BZa A Busev,T Zholondkovskaya et al; Zh.Anal.Khim.,27,11,2165 (1972)
1972FEa D Ferri; Acta Chem.Scand.,26,733;747 (1972)
1972GDb M Gupta,H Das,S Shome; J.Inorg.Nucl.Chem.,34,350 (1972)
1972GKc R Guseva,V Kumok; Zh.Neorg.Khim.,17,12,3195 (1972)
1972GOc V Golovanov; Zh.Neorg.Khim.,17,2756(E:1443) (1972)
1972KMf F Kulba,Y Makashev,N Fedyaev; Zh.Neorg.Khim.,17,109;361;378 (1972)
1972KVa V Kornev,V Vekshin; Zh.Fiz.Khim.,46,10,2485;834 (1972)
1972MKc G Markovits,P Klotz,L Newman; Inorg.Chem.,11,2405 (1972)
1972MRc P Manning,S Ramamoorthy; J.Inorg.Nucl.Chem.,34,1997 (1972)
1972NKa T Nozaki,K Kasuga,K Koshiba; Nippon Kagaku Kaishi,568 (1972)
1972PMb A Pandey,M Mittal; J.Inorg.Nucl.Chem.,34,2365 (1972)
1972RBb E Russeva,O Budevsky; Itz.Otd.Khim.Nauki,Bulg.,5,253 (1972)
1972RGc P Rawat,C Gupta; Talanta,19,706 (1972)
1972SCe R Saxena,U Chaturvedi; J.Inorg.Nucl.Chem.,34,3272 (1972)
1972SGc V Samoilenko,I Grinyuk; Ukr.Khim.Zh.,38,8 (1972)
1972SMa R Sarin,K Munshi; Australian J.Chem.,25,929 (1972)
1972SMd V Skopenko,V Mikitenko; Ukr.Khim.Zh.,38,923 (1972)
1972SMe R Sarin,K Munshi; J.Inorg.Nucl.Chem.,34,581 (1972)
1972TSb K Tunaboylu,G Schwarzenbach; Helv.Chim.Acta,55,2065 (1972)
1972TSg Y Turyan,N Strizov; Zh.Neorg.Khim.,17,2053(E:1066) (1972)
1971BRd E Biryuk,R Ravitskaya; Zh.Anal.Khim.,26,4,735;9,1767 (1971)
1971BRe E Biryuk,R Ravitskaya; Zh.Anal.Khim.,26,735;1767 (1971)
1971BRf E Biryuk,R Ravitskaya; Zh.Anal.Khim.,26,9,1752 (1971)
1971DGd S Drozdova,L Gen,A Momsenko et al; Zh.Neorg.Khim.,16,8,2082 (1971)
1971EPd N Emchenko,A Pilipenko,O Ryabushko; Ukr.Khim.Zh.,37,9,935;10,1050 (1971)
1971KCa L Kozin,G Chernil; Zh.Prikl.Khim.,44,1525(E:1546) (1971)
1971KHb P Khadikar; Sci.Cult.,37,56;164;213;437;444 (1971)
1971KMg F Kulba,Y Makashev,N Fedyaev; Zh.Neorg.Khim.,16,2352 (1971)

1971MAa G Manku; Australian J.Chem.,24,925 (1971)
1971MOa K Momoki,H Ogawa; Anal.Chem.,43,1664 (1971)
1971NOc B Nikolskii,N Okun,V Palchevskii et al; Vestnik Leningr.Univ.,4,10 (1971)
1971NPb B Nikolskii,V Palchevskii,N Okun; Dokl.Akad.Nauk SSSR,198,4;851 (1971)
1971PVa A Pavlinova,T Vysotskaya; Isvest.VUZ.Khim.,14,10,1517 (1971)
1971SAg V Samoilenko; Ukr.Khim.Zh.,37,1095 (1971)
1971SCc F Smirous,J Celeda,M Palek; Collec.Czech.Chem.Commun.,36,3891 (1971)
1971WTa J Walker,C Twine,G Choppin; J.Inorg.Nucl.Chem.,33,1813 (1971)
1970AKa A Adin,P Klotz,L Newman; Inorg.Chem.,9,2499 (1970)
1970BRd E Biryuk,R Ravitskaya; Zh.Anal.Khim.,25,8,1643 (1970)
1970EKa A Egorova,L Kozin; Zh.Prikl.Khim.,43,1659(E:1677) (1970)
1970HAb Y Hasegawa; Bull.Chem.Soc.Jpn.,43,2665 (1970)
1970HRb P Hemmes,L Rich et al; J.Phys.Chem.,74,2859 (1970)
1970IEb B Ivanov-Emin,A Egorov et al; Zh.Neorg.Khim.,15,1224(E:628) (1970)
1970TOa I Torko; Magyar Kem.Foly.,76,163 (1970)
1970TSa K Tunaboylu,G Schwarzenbach; Chimia,24,424 (1970)
1969ALc A Aziz,S Lyle; J.Inorg.Nucl.Chem.,31,2431 (1969)
1969APa U Anders,J Plambeck; Can.J.Chem.,47,3055 (1969)
1969BNd E Biryuk,V Nazarenko et al; Zh.Neorg.Khim.,14,965(E:503) (1969)
1969BUa M Bulatov; Zh.Anal.Khim.,24,7,1053 (1969)
1969HPb M Hanson,R Plane; Inorg.Chem.,8,746 (1969)
1969HSd M Hnilickova,L Sommer; Talanta,16,83;681 (1969)
1969IEa R Izatt,D Eatough,J Christensen et al; J.Chem.Soc.(A),45;47 (1969)
1969KSg N Kotsar,V Samoilenko; Zh.Neorg.Khim.,14,2717(E:1431) (1969)
1969MNb D Mikhailova,R Nacheva,V Mikhailova; Radiokhim.,11,247(E:241) (1969)
1969PKd S Popova,B Karadakov,P Kovalenko et al; Zh.Anal.Khim.,24,682 (1969)
1969RYa T Ryhl; Acta Chem.Scand.,23,2667 (1969)
1969SAd I Sheka,L Andrusenko; Zh.Neorg.Khim.,14,362(E:186) (1969)
1969ZGa Y Zolotov,L Gavrilova; Zh.Neorg.Khim.,14,8,2157 (1969)
1968ABa Y Atoks,Y Bankovskii; Izv.Akad.Nauk Latv.SSR,Khim.,1,122 (1968)
1968ALe A Aziz,S Lyle; J.Inorg.Nucl.Chem.,30,3223 (1968)
1968ASa V Athavale,R Sathe,N Mahadevan; J.Inorg.Nucl.Chem.,30,3107 (1968)
1968DDa R Das,A Dash,J Mishra; J.Inorg.Nucl.Chem.,30,2417 (1968)
1968DTa E Deichman,I Tananaev,Z Ezhova et al; Zh.Neorg.Khim.,13,47 (1968)
1968FDb R Ferguson,P Dobud,D Tuck; J.Chem.Soc.(A),1058 (1968)
1968GJa J Gaur,D Jain,M Pairecha; J.Chem.Soc.(A),2201 (1968)
1968GSa V Garg,S Shrivastawa,A Dey; J.Indian Chem.Soc.,45,385 (1968)
1968GSe V Garg,S Srivastava,A Dey; Curr.Sci.,37,47 (1968)
1968SAb G Schweitzer,M Anderson; J.Inorg.Nucl.Chem.,30,1051;1057 (1968)
1968TOa I Torko; Magyar Kem.Foly.,74,590 (1968)
1968WKa H Wada,M Kakagawa; Nippon Kagaku Kaishi,89,499 (1968)
1967ASc L Andrusenko,I Sheka; Zh.Neorg.Khim.,12,638 (1967)
1967BAc E Bottari,G Anderegg; Helv.Chim.Acta,50,2349 (1967)
1967BIa A Busev,V Ivanov,N Khlybova; Zh.Anal.Khim.,22,4,547 (1967)
1967BNc D Bearcroft,N Nachtrieb; J.Phys.Chem.,71,4400 (1967)
1967HPa J Headridge,D Pletcher; Inorg.Nucl.Chem.Lett.,3,475 (1967)
1967NMa T Nozaki,T Mise,K Higaki; Nippon Kagaku Kaishi,88,1168 (1967)
1967NPb G Nickless,F Pollard,T Samuelson; Anal.Chim.Acta,39,37 (1967)
1967PAa V Podgornova,K Abdullaeva,S Talipov; Uzbeksk.Khim.Zh.,6,9 (1967)

1967SYa V Salikhov,M Yampolskii; Zh.Anal.Khim.,22,7,998 (1967)
1967TAa S Talipov,K Abdullaeva,G Andrushko; Uzbeksk.Khim.Zh.,1,17 (1967)
1966CBb B Cosovic,M Branica; J.Polarog.Soc.,12,5 (1966)
1966DMd C Dwivedi,K Munshi,A Dey; J.Indian Chem.Soc.,43,301 (1966)
1966DMf C Dwivedi,K Munshi,A Dey; J.Inorg.Nucl.Chem.,28,245 (1966)
1966DRa E Deichman,G Rodicheva,L Krysina; Zh.Neorg.Khim.,11,2237 (1966)
1966GNa S Gusev,E Nikolaeva; Zh.Anal.Khim.,21,2,166 (1966)
1966GNb S Gusev,E Nikolaeva; Zh.Anal.Khim.,21,3,281 (1966)
1966GUa S Gusev et al; Zh.Anal.Khim.,21,1042;1183 (1966)
1966HSa Y Hasegawa,T Sekine; Bull.Chem.Soc.Jpn.,39,2776 (1966)
1966MAb S Misumi,M Aihara; Bull.Chem.Soc.Jpn.,39,2677 (1966)
1966ZAb N Zhirnova,K Astakhov,S Barkov; Zh.Neorg.Khim.,11,1417 (2638) (1966)
1966ZAc N Zhirnova,K Astakhov,S Barkov; Zh.Fiz.Khim.,40,222 (417) (1966)
1965BRc T Bhat,D Radhamma; Indian J.Chem.,3,151 (1965)
1965GEa G Geier; Ber.Buns.Phys.Chem.,69,617 (1965)
1965NDa R Nanda,R Das,R Nanda; Indian J.Chem.,3,278 (1965)
1965NHa Y Narusawa,J Hashimoto,H Hamaguchi; Bull.Chem.Soc.Jpn.,38,234 (1965)
1965SAe A Sherif,I Alimarin,I Puzdrenkova; Vestnik Moskov Univ.,3,71 (1965)
1965VIa R Visco; J.Phys.Chem.,69,202 (1965)
1965ZAa N Zhirnova,K Astakhov,S Barkov; Zh.Fiz.Khim.,39,647(E:1224);952;1489 (1965)
1964GLa R Guzairov,V Leitsin,S Grekov; Zh.Neorg.Khim.,9,20 (1964)
1964KSe V Kumok,V Serebrennikov; Zh.Neorg.Khim.,9,2148 (1964)
1964LAb R Larsson; Acta Chem.Scand.,18,1923 (1964)
1964MDb K Munshi,A Dey; J.Indian Chem.Soc.,41,340 (1964)
1964PCa Personal Communication etc; Chem.Soc.Spec.Publ.,no.17 (1964)
1964VRa S Varva,N Rudenko; Vestnik Moskov Univ.,6,14 (1964)
1963CHb A Covington,M Hakeem,W Wynne-Jones; J.Chem.Soc.,4394 (1963)
1963GSc A Golub,V Samoilenko; Ukr.Khim.Zh.,29,472 (1963)
1963GSd A Golub,V Samoilenko; Ukr.Khim.Zh.,29,590 (1963)
1963MMd D Maydan,Y Marcus; J.Phys.Chem.,67,979;987 (1963)
1963OHa W Ohnesorge; Anal.Chem.,35,1137 (1963)
1963RMb D Ryabchikov,I Marov,Y Ko-min; Zh.Neorg.Khim.,8,326 (641) (1963)
1963RSd T Radhakrishnan,A Sundaram; J.Electroanal.Chem.,5,124 (1963)
1963STc J Stary; Anal.Chim.Acta,28,132 (1963)
1963TPa L Thompson,R Pacer; J.Inorg.Nucl.Chem.,25,1041 (1963)
1962AKb T Andersen,A Knutsen; Acta Chem.Scand.,16,875 (1962)
1962APa V Altynov,B Ptitsyn; Zh.Neorg.Khim.,7,2103 (1962)
1962FSa Y Fridman,R Sorochan,N Dolgashova; Zh.Neorg.Khim.,7,2127 (1962)
1962KMa J Kirby,R Milburn,J Saylor; Anal.Chim.Acta,26,458 (1962)
1962NAc R Nanda,S Aditya; Z.Phys.Chem.,(Frankfurt),35,139 (1962)
1962RMa D Ryabchikov,I Marov,Y Ko-min; Zh.Neorg.Khim.,7,1415 (2716) (1962)
1962SAd P Sakellaridis; Compt.Rend.,255,127 (1962)
1962TSb J Terpilowski,R Staroscik; Chemia Analitychna.,7,629 (1962)
1961BLc G Biedermann,N Li,J Yu; Acta Chem.Scand.,15,555 (1961)
1961KBc P Kovalenko,K Bagdasarov; Zh.Neorg.Khim.,6,534;539 (1961)
1961SCb K Schlyter; Trans.Roy.Inst.Tech.(Stockholm),182 (1961)
1961WKb J White,P Kelly,N Li; J.Inorg.Nucl.Chem.,16,337 (1961)
1960BWa G Biedermann,T Wallin; Acta Chem.Scand.,14,594 (1960)
1960STb J Stary; Collec.Czech.Chem.Commun.,25,86;890 (1960)

1960WTa J White,P Tang,N Li; J.Inorg.Nucl.Chem.,14,255 (1960)
1959ASd N Akselrud,V Spivakovskii; Zh.Neorg.Khim.,4,989 (1959)
1959BKa A Busev,N Kanaev; Vestnik Moscow Univ.,Ser.Mat.,1,135 (1959)
1959MEc J Mendez; Thesis,quoted in ref.63Mf (1959)
1959MIa T Miturova; Dokl.Akad.Nauk Ukr.,166 (1959)
1958DIa R Dietz; Thesis,Mass.Inst.Tech (1958)
1958DId R Dietz; Thesis,MIT,quoted in ref.63Mf (1958)
1958MAb Y Marcus; Personal communication (1958)
1958SRa L Staveley,T Randall; Trans.Faraday Society,26,157 (1958)
1958VPa C Vanleugenhaghe,M Pourbaix; Cebelcor Rapp.Tech.,74;75 (1958)
1958ZBa A Zelyanskaya,N Bausova,L Kukalo; Trudy Inst.Met.Akad.Nauk SSSR,2,263 (1958)
1957BHa E Burns,D Hume; J.Am.Chem.Soc.,79,2704 (1957)
1957CRa D Cozzi,G Raspi; Ricerca Sci.,27,2392 (1957)
1957PKa I Pyatnitskii,A Kostyshina; Chem.Abs.,52,7819c (1957)
1956BIa G Biedermann; Ark.Kemi.,9,277 (1956)
1956RRa F Rossotti,H Rossotti; Acta Chem.Scand.,10,779 (1956)
1956STa K Saito,H Terry; J.Chem.Soc.,4701 (1956)
1956TGb I Tananaev,M Glushkova,G Seifer; Zh.Neorg.Khim.,1,66 (1956)
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)
1954CIa B Carleson,H Irving; J.Chem.Soc.,4390 (1954)
1954CVb D Cozzi,S Vivarelli; Z.Elektrochem.,58,907 (1954)
1954HKa L Hepler,J Kury,Z Hugus; J.Phys.Chem.,58,26 (1954)
1954KWa W Kangro,F Weingartner; Z.Elektrochem.,58,505 (1954)
1954ROa F Rossotti; Personal communication (1954)
1954SEb J Schufle,H Eiland; J.Am.Chem.Soc.,76,960 (1954)
1954SUa N Sunden; Svensk Kem.Tidskr.,66,20;173;345 (1954)
1954SUb N Sunden; Svensk Kem.Tidskr.,66,50;345 (1954)
1953SUc N Sunden; Svensk Kem.Tidskr.,65,257 (1953)
1952HHa L Hepler,Z Hugus; J.Am.Chem.Soc.,74,6115 (1952)
1951PJb J Peacock,J James; J.Chem.Soc.,2233 (1951)
1951SSb J Schufle,M Stubbs,R Witman; J.Am.Chem.Soc.,73,1013 (1951)
1949LAa S Lacroix; Ann.Chim.,(France),4,5 (1949)
1942MOa T Moeller; J.Am.Chem.Soc., 64,953 (1942)
1941MOa T Moeller; J.Am.Chem.Soc.,63,1206;2625 (1941)
1938OKa Y Oka; J.Chem.Soc.Jpn.,59,971 (1938)
1936HVa E Hattox,T de Vries; J.Am.Chem.Soc.,58,2126 (1936)
1925HEa J Heyrovsky; Chem.Listy, 19,168 (1925)

EXPLANATORY NOTES

DATA Flags are :-

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

EVALUATION Flags are :-

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

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