

START Experiments recorded for
 from SC-Database on Saturday, 01 January, 2000 at 00:38:32
 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 |
| ***** | | | | | | | | | |
| e- | | HL | | Electron | | | B(In2SO4)=0.90 | | |
| (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 1971M0a (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 K3=0.7 | B2=2.40 | 1969HPb (2051) | 27 |
| Method: Raman | | | | | | | | | |
| In+++ | ISE | non-aq | 25⬢C | 100% | U | K1=3.51 B3=8.30 B4=10.51 B5=13.2 B6=16.0 | B2=5.80 | 1969KSg (2052) | 28 |
| 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 K3=0.59 K4=-0.52 K5=-1.6 K6=-2.2 | 1962AKb (2054) 30 | | |
| 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 K3=0.34 | B2=3.13 | 1959BKa (2056) | 32 |
| 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 K3=0.60 K4=0.85 | B2=3.36 | 1957BHa (2058) | 34 |
| In+++ | ix | NaClO4 | 20⬢C | 0.69M | U | K1=2.01 K3=0.18 | B2=3.10 | 1954CIa (2059) | 35 |
| 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 | 1954R0a (2061) 37 | | |
| In+++ | ix | NaClO4 | 25⬢C | 1.0M | U | K1=1.20 K3=0.70 | B2=1.78 | 1954SEb (2062) | 38 |
| 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 Kso=-43.72 1956Tgb (3570) 43

 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
 $K(\text{InL}+\text{H}_2\text{O}=\text{InL}(\text{OH})+\text{H})=-3.9$
 $K(\text{InL}+\text{In}+\text{H}_2\text{O}=\text{In}_2\text{L}(\text{OH})+\text{H})=-2.3$

Method: In amalgam and Ag electrodes

 In+++ dis non-aq 25°C 100% U TI 1972G0c (5080) 53
 $K(\text{InL}_4+\text{H})=3.2$

Medium: methylbutyl ketone, 25-40 C. $K(\text{InL}_4+\text{H})=3.3(60 \text{ C})$

In nitrobenzene: $K(\text{InL}_4+\text{H})=3.9$

 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
K_{so}(In(OH)1.5L1.5)=-25.20

K_{so}(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 |

$K_4 = 1.3$

In+++ dis NaClO₄ 25°C 1.0M U K1=3.67 B2=6.26 1968ALe (6971) 86
B3=8.61

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

Method: cation exchange, pH 3.8

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg | K values | Reference | ExptNo |
|-------|-----|--------|------|------|-----|-------|----|--|-----------|-----------|
| In+++ | EMF | NaNO3 | 25°C | 4.0M | U | M | | B(InClBr)=2.54 B(InCl2Br)=2.86 B(InCl3Br)=2.90 | 1962FSa | (7406) 91 |

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

Medium: N,N-Dimethylformamide, 0.20 M Et₄NClO₄.

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
*****
I03-      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

```
In+++      gl  NaCl04 25°C 1.00M C   H      K1=3.19   B2=5.61   1982AVb (10237) 117
                                     B3=7.26
                                     B4=8.46
```

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

```
*K1=-4.310
*B2=-9.35
*B(4,4)=-7.32
*B(5,5)=-9.120
```

```
*K1=-4.23
*B(2,2)=-5.27
*B(4,6)=-13.79
```

In-electrode

In-electrode

for 1 M LiClO₄ in 0.65 mol parts CH₃CN K(InOH+H)=2.35

*K1=-3.634

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
 $K[\text{In}(\text{OH})+\text{H}]=3.64$
 $K[\text{In}(\text{OH})_2+2\text{H}]=6.5$
 In 3.0 M LiClO₄ in 0.36 mol parts acetone in H₂O
 For 3.0 M LiClO₄ in 100% H₂O $K(\text{In}(\text{OH})+\text{H})=4.26$

In+++ EMF NaClO₄ 25°C 1.50M U 1974G0c (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
 $K(\text{InL}_3(\text{s})+\text{L}=\text{InL}_4)=-3.9$
 $K(\text{InL}_3(\text{s})+2\text{L}=\text{InL}_5)=-5.5$
 $K(\text{InL}_3(\text{s})+3\text{L}=\text{InL}_6)=-7.3$

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
 $*K_s(\text{In}(\text{OH})_3+\text{H}=\text{In}(\text{OH})_2+\text{H}_2\text{O})=0.2$
 $K_s(\text{In}(\text{OH})_3(\text{s})+\text{OH}=\text{In}(\text{OH})_4)=-3.0$

$$K_s(\text{In}(\text{OH})_3 + 3\text{OH}) = -0.5?$$

*K1=-6.95

$$*B(2,2)=-10.15$$
$$K_{SO} = -32.85$$

$\Delta H(^*K1) = 20.3 \text{ kJ mol}^{-1}$, $\Delta S = -17$; $\Delta H(^*B2) = ca. 59?$, $\Delta H(^*B(2,2)) = 42.6$, $\Delta S = 43.1$;

$$DH(*B(n+1, 2n)) = 42.59n, \quad DS = 53.1n - 10.0$$
$$K_{SO} = -36.92$$

*K_{SO}=7.73(In203)

$$*K_{so} = 8.65 \times 10^{-34} \text{ (In(OH)}_3\text{)}$$
$$*K_{so}(1/2\text{In}_2\text{O}_3(\text{s})+3\text{H}=\text{In}+1.5\text{H}_2\text{O}); *K_{so}(\text{In}(\text{OH})_3(\text{s})+3\text{H}=\text{In}+3\text{H}_2\text{O})$$

Method: combination of thermodynamic data

*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

*K1=-4.4

*K2=-4.4

$$K_{SO} = -33.9$$

*K1=-4.92(in InCl3)

*K1=-4.85(in InBr3)

*K1=-4.74(in InI3)

*K1=-3.85

$$K_{SO} = -33.2$$
$$K_{SO} = -34.4(10 \text{ } ^\circ\text{C}), -32.6(40 \text{ } ^\circ\text{C})$$
$$K_{SO} = -33.2$$

In+++ oth oth/un 23°C dil U 1936HV a (11651) 147
*K1=-3.70

In+++ vlt oth/un 25°C 1.0M U 1925HE a (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

P04--- 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 1980FI a (13222) 149
K(In+HPO4)=7.40
K(In+2HPO4)=13.71

In+++ ix R4N.X 25°C 0.20M U 1974FG c (13223) 150
K(2In+H2L=In2HL+H)=0.09

In+++ ix NaClO4 20°C 0.90M U 1974FK a (13224) 151
K(In+H2L)=2.34

In+++ sol NaClO4 25°C 1.0M U 1968DT a (13225) 152
Kso=-21.63

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

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

In+++ dis NaClO4 20°C 0.10M U 1978IS a (13600) 153
K(In+HL+L)=21.99
B(InL2)=23.80

In+++ sp NaClO4 20°C 0.10M U I 1969SA d (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 1964GL a (13602) 155
Kso(In4L3)=-62.5
K(InHL(s)=In+HL)=-12.44

P3010---- H5L CAS 10380-08-2 (1001)
Tripolyphosphate; from (HO)2PO.O.PO(OH).O.PO(OH)2

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

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

Kso(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

S04-- 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+S04)=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 | | K ₁ =17.49 B ₂ =19.15 B ₃ =20.75 B ₄ =22.25 B ₅ =24.04 B ₆ =25.46 | 1972SMd (16990) | 191 |

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 | | | K _{so} (In ₂ L ₃ (H ₂ O) ₆)=-32.6 | 1959MIa (17064) | 192 |

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 | NaNO ₃ | 25°C | 2.00M | U | M | | K ₁ =2.90 B ₂ =4.00 B _{3eff} =5.60 B _{4eff} =6.28 | 1987KSb (17617) | 193 |

Data at pH 5 (all K_{eff} ?)

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg | K values | Reference | ExptNo |
|-------|-----|--------------------|------|------|-----|-------|----|---|-----------------|--------|
| In+++ | EMF | NaClO ₄ | 20°C | 2.0M | U | T | | K ₁ =2.74 B ₂ =4.72 K ₃ =0.98 K ₄ =1.00 | 1953SUc (17618) | 194 |

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 | | K ₁ =1.17 B ₂ = 3.44 B ₃ =5.20 B(In(bpy)L)=4.95 B(In(bpy) ₂ L)=6.27 B(In(bpy)L ₂)=5.36 | 1987LPb (17836) | 195 |

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 | KN03 | 25♦C | 0.50M | M | | K1=12.57 B2=23.53 B3=31.21 B4=36.3 | 1984TZa (20332) | 207 |

| | | | | | | | | | |
|-------|----|--------|------|-------|-----|--|---------------------------------|-----------------|-----|
| In+++ | gl | NaClO4 | 25♦C | 0.20M | U T | | K1=12.10 B2=22.43 K3=6.34 | 1973SMc (20333) | 208 |
|-------|----|--------|------|-------|-----|--|---------------------------------|-----------------|-----|

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 K3=1.70 | 1983TUa (20563) | 209 |

IUPAC evaluation

| | | | | | | | | | |
|-------|----|--------|------|-------|-----|---|--------------------|-----------------|-----|
| 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

| | | | | | | | | | |
|-------|----|--------|------|-------|---|---|-------------------|-----------------|-----|
| In+++ | ix | NaClO4 | 25♦C | 0.50M | U | T | K1=2.93 B2=5.4 | 1968TOa (20565) | 211 |
|-------|----|--------|------|-------|---|---|-------------------|-----------------|-----|

| | | | | | | | | | |
|-------|----|--------|---|-------|---|--|---------|-----------------|-----|
| In+++ | ix | NaClO4 | ? | 0.30M | U | | K1=3.15 | 1960WTa (20566) | 212 |
|-------|----|--------|---|-------|---|--|---------|-----------------|-----|

| | | | | | | | | | |
|-------|----|--------|---|-------|---|--|---------|-----------------|-----|
| In+++ | gl | oth/un | ? | 0.14M | U | | K1=2.95 | 1960WTa (20567) | 213 |
|-------|----|--------|---|-------|---|--|---------|-----------------|-----|

| | | | | | | | | | |
|-------|-----|--------|------|------|---|---|--|-----------------|-----|
| In+++ | EMF | NaClO4 | 20♦C | 2.0M | U | T | K1=2.93 B2=5.52 K3=1.78 K4=0.65 | 1953SUC (20568) | 214 |
|-------|-----|--------|------|------|---|---|--|-----------------|-----|

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 |

| | | | | | | | | | |
|-------|----|--------|------|-------|-----|--|---------|-----------------|-----|
| 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 |

$$K(T_{n+1/2}) = 2.30$$
$$K(I_n + HL) = 6.20$$

$$K(\text{Trl}, H) = 3.7$$
$$K(\text{InHL} + \text{H}) < 1$$
$$K(\text{InHL}2+\text{H})=8.4$$

C2U16NE04Cg III (221)

_____ \ / \ / \ /

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

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2  # Amine 3 mercaptopropano=3 ac2a; n2n(en)(en/en)/ccc

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[illegible]

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| Model | Mod | Mod2 | Mod3 | Temp | Cont | Ed | Ed2 | Ed3 | Ed4 | Ed5 | Ed6 | Ed7 | Ed8 | Ed9 | Ed10 | Ed11 | Ed12 | Ed13 | Ed14 | Ed15 | Ed16 | Ed17 | Ed18 | Ed19 | Ed20 | Ed21 | Ed22 | Ed23 | Ed24 | Ed25 | Ed26 | Ed27 | Ed28 | Ed29 | Ed30 | Ed31 | Ed32 | Ed33 | Ed34 | Ed35 | Ed36 | Ed37 | Ed38 | Ed39 | Ed40 | Ed41 | Ed42 | Ed43 | Ed44 | Ed45 | Ed46 | Ed47 | Ed48 | Ed49 | Ed50 | Ed51 | Ed52 | Ed53 | Ed54 | Ed55 | Ed56 | Ed57 | Ed58 | Ed59 | Ed60 | Ed61 | Ed62 | Ed63 | Ed64 | Ed65 | Ed66 | Ed67 | Ed68 | Ed69 | Ed70 | Ed71 | Ed72 | Ed73 | Ed74 | Ed75 | Ed76 | Ed77 | Ed78 | Ed79 | Ed80 | Ed81 | Ed82 | Ed83 | Ed84 | Ed85 | Ed86 | Ed87 | Ed88 | Ed89 | Ed90 | Ed91 | Ed92 | Ed93 | Ed94 | Ed95 | Ed96 | Ed97 | Ed98 | Ed99 | Ed100 | Ed101 | Ed102 | Ed103 | Ed104 | Ed105 | Ed106 | Ed107 | Ed108 | Ed109 | Ed110 | Ed111 | Ed112 | Ed113 | Ed114 | Ed115 | Ed116 | Ed117 | Ed118 | Ed119 | Ed120 | Ed121 | Ed122 | Ed123 | Ed124 | Ed125 | Ed126 | Ed127 | Ed128 | Ed129 | Ed130 | Ed131 | Ed132 | Ed133 | Ed134 | Ed135 | Ed136 | Ed137 | Ed138 | Ed139 | Ed140 | Ed141 | Ed142 | Ed143 | Ed144 | Ed145 | Ed146 | Ed147 | Ed148 | Ed149 | Ed150 | Ed151 | Ed152 | Ed153 | Ed154 | Ed155 | Ed156 | Ed157 | Ed158 | Ed159 | Ed160 | Ed161 | Ed162 | Ed163 | Ed164 | Ed165 | Ed166 | Ed167 | Ed168 | Ed169 | Ed170 | Ed171 | Ed172 | Ed173 | Ed174 | Ed175 | Ed176 | Ed177 | Ed178 | Ed179 | Ed180 | Ed181 | Ed182 | Ed183 | Ed184 | Ed185 | Ed186 | Ed187 | Ed188 | Ed189 | Ed190 | Ed191 | Ed192 | Ed193 | Ed194 | Ed195 | Ed196 | Ed197 | Ed198 | Ed199 | Ed200 | Ed201 | Ed202 | Ed203 | Ed204 | Ed205 | Ed206 | Ed207 | Ed208 | Ed209 | Ed210 | Ed211 | Ed212 | Ed213 | Ed214 | Ed215 | Ed216 | Ed217 | Ed218 | Ed219 | Ed220 | Ed221 | Ed222 | Ed223 | Ed224 | Ed225 | Ed226 | Ed227 | Ed228 | Ed229 | Ed230 | Ed231 | Ed232 | Ed233 | Ed234 | Ed235 | Ed236 | Ed237 | Ed238 | Ed239 | Ed240 | Ed241 | Ed242 | Ed243 | Ed244 | Ed245 | Ed246 | Ed247 | Ed248 | Ed249 | Ed250 | Ed251 | Ed252 | Ed253 | Ed254 | Ed255 | Ed256 | Ed257 | Ed258 | Ed259 | Ed260 | Ed261 | Ed262 | Ed263 | Ed264 | Ed265 | Ed266 | Ed267 | Ed268 | Ed269 | Ed270 | Ed271 | Ed272 | Ed273 | Ed274 | Ed275 | Ed276 | Ed277 | Ed278 | Ed279 | Ed280 | Ed281 | Ed282 | Ed283 | Ed284 | Ed285 | Ed286 | Ed287 | Ed288 | Ed289 | Ed290 | Ed291 | Ed292 | Ed293 | Ed294 | Ed295 | Ed296 | Ed297 | Ed298 | Ed299 | Ed300 | Ed301 | Ed302 | Ed303 | Ed304 | Ed305 | Ed306 | Ed307 | Ed308 | Ed309 | Ed310 | Ed311 | Ed312 | Ed313 | Ed314 | Ed315 | Ed316 | Ed317 | Ed318 | Ed319 | Ed320 | Ed321 | Ed322 | Ed323 | Ed324 | Ed325 | Ed326 | Ed327 | Ed328 | Ed329 | Ed330 | Ed331 | Ed332 | Ed333 | Ed334 | Ed335 | Ed336 | Ed337 | Ed338 | Ed339 | Ed340 | Ed341 | Ed342 | Ed343 | Ed344 | Ed345 | Ed346 | Ed347 | Ed348 | Ed349 | Ed350 | Ed351 | Ed352 | Ed353 | Ed354 | Ed355 | Ed356 | Ed357 | Ed358 | Ed359 | Ed360 | Ed361 | Ed362 | Ed363 | Ed364 | Ed365 | Ed366 | Ed367 | Ed368 | Ed369 | Ed370 | Ed371 | Ed372 | Ed373 | Ed374 | Ed375 | Ed376 | Ed377 | Ed378 | Ed379 | Ed380 | Ed381 | Ed382 | Ed383 | Ed384 | Ed385 | Ed386 | Ed387 | Ed388 | Ed389 | Ed390 | Ed391 | Ed392 | Ed393 | Ed394 | Ed395 | Ed396 | Ed397 | Ed398 | Ed399 | Ed400 | Ed401 | Ed402 | Ed403 | Ed404 | Ed405 | Ed406 | Ed407 | Ed408 | Ed409 | Ed410 | Ed411 | Ed412 | Ed413 | Ed414 | Ed415 |
|-------|-----|------|------|------|------|----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|-------|-----|------|------|------|------|----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|

Medium: DMF 0.1 M LiClO₄

[illegible][illegible]

`> kmeans(x = as.matrix(iris[, 1:4]), nclusters = 3)`

| | | | | | | | | | | |
|---------------|------------|------------------|-------------|-------------|------------|------------|----------|------------|------------|------------|
| Model: | Mod | ModelName | Temp | Cone | Cal | Fed | g | Val | Ref | Exp |
|---------------|------------|------------------|-------------|-------------|------------|------------|----------|------------|------------|------------|

$$K(T_{\text{m}}/H_2O) = 3 \cdot 10$$

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

$$(\sin \theta_1 \sin \theta_2) = \sin \theta_1 \sin \theta_2, \quad (\sin \theta_1 \sin \theta_2) = \sin \theta_1 \sin \theta_2, \quad (\sin \theta_1 \sin \theta_2) = \sin \theta_1 \sin \theta_2,$$
[illegible]

| | | | | | | | | | |
|-------|----|-------|------|-------|---|----------------|---------|-----------------|-----|
| In+++ | gl | NaNO3 | 24°C | 0.20M | C | K1=30.0 | B2=35.8 | 1993BRa (28413) | 245 |
| | | | | | | K(InL+H)=9.5 | | | |
| | | | | | | K(InHL+H)<1 | | | |
| | | | | | | K(InL2+H)=10.8 | | | |
| | | | | | | K(InHL2+H)=9.9 | | | |

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; HOOCH: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 B3eff=7.20 | 1987KSb (29087) | 246 |

Data at pH 5 (all Keff ?)

| | | | | | | | | | |
|-------|-----|--------|------|-------|---|--|----------------------------|-----------------|-----|
| In+++ | ISE | KN03 | 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 B3=6.2 | 1967NMa (29089) | 248 |

 C4H4O4 H2L Fumaric acid CAS 110-17-8 (289)
 trans-Butenedioic acid; HOOCH: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; HOOCH(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 K3=3.71 | 1976DGd (30128) | 250 |

 C4H6O4S H3L Thiomalic acid CAS 70-49-5 (109)
 2-Mercaptosuccinic acid, 2-Sulfanyl-1,4-butanedioic acid; HOOCH(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; HOOCH2.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
 $K(UO_2+In+2H_2L=UO_2InH-2L_2+6H)=-7.62$

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
 $K_{eff}(InL_2+0.5(UO_2L)_2=InUO_2L_2+L)=1.48$, pH 4.

 C₄H₆O₆ H₂L DL-Tartaric acid CAS 133-37-9 (94)
 DL-Tartaric acid,DL-2,3-Dihydroxybutanedioic acid; H₂OC.CH(OH).CH(OH).COOH

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|-------|-----|-------------------|------|-------|-----|-------|---|-----------------|--------|
| In+++ | gl | NaNO ₃ | 25°C | 0.50M | M | | | 1989MAa (31025) | 257 |
| | | | | | | | B(-4,1,1)=-4.91 | | |
| | | | | | | | K(2InH-2L=In ₂ H-4L ₂)=-11.3 | | |
| | | | | | | | B(p,q,r): pH+qM+rH ₂ L. K(UO ₂ +In+2H ₂ L=UO ₂ InH-4L ₂ +8H)=-7.77 | | |
| | | | | | | | ***** | | |
| | | | | | | | C ₄ H ₆ O ₆ H ₂ L L-Tartaric acid CAS 87-69-4 (92) | | |
| | | | | | | | L-Tartaric acid, L-2,3-Dihydroxybutanedioic acid; H ₂ OC.CH(OH).CH(OH).COOH | | |

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|-------|-----|--------------------|------|-------|-----|-------|------------------|-----------------|--------|
| In+++ | gl | NaClO ₄ | 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
 $K(UO_2+M+2H_2L=UO_2MH-2L_2+6H)=-7.14$

In+++ gl NaClO₄ 25°C 0.10M U K₁=4.44 B₂=8.46 1972MRc (31283) 262
 Values quoted for meso form
 $K_1(dl)=4.97$, $K_2(dl)=4.77$, $B_2(meso-dl)=11.14$

In+++ dis oth/un 25°C ? U 1970AKa (31284) 263
 $K'(ML_2+0.5(UO_2L)_2=MUO_2L_2+L)=1.49$, 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 | 1.00M | U | | | | 1983KdD (35611) | 274 |

K(In+H3L)=9.6

| | | | |
|---|-----|----------------|--------|
| C4H13N09P2S | H5L | CAS 58480-01-6 | (2650) |
| 2-Sulfoethylamine-N,N-di(methylphosphonic acid); HS03.CH2.CH2.N(CH2.P03H2)2 | | | |

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

| | | | | | | | | | | |
|-------|-----|--------|----|-------|---|--|--|--|-----------------|-----|
| In+++ | dis | NaClO4 | 20 | 1.00M | U | | | | 1983KdD (35621) | 275 |
|-------|-----|--------|----|-------|---|--|--|--|-----------------|-----|

K(In+H3L)=11.0

| | | | | |
|---|-----|-------|---------------|--------|
| C4H14N206P2 | H2L | EDDPO | CAS 1733-49-9 | (2435) |
| 1,2-Diaminoethane-N,N'-bis(methylenephosphonic) acid; (H203P.CH2.NH.CH2)2 | | | | |

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

| | | | | | | | | | | |
|-------|-----|--------|----|-------|---|--|--|--|-----------------|-----|
| In+++ | dis | NaClO4 | 20 | 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 | 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 | 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 | 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 | 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 | | | | | | | | | |

| | | | | | | | | | |
|-------|-----|--------|------|-------|---|-----|------------------------|-----------------|-----|
| In+++ | oth | NaClO4 | 25°C | 0.10M | C | I T | K1=7.8 B2=14.4 B3=18.5 | 1982SLc (37996) | 283 |
|-------|-----|--------|------|-------|---|-----|------------------------|-----------------|-----|

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

| | | | | | | | | | |
|-------|-----|--------|------|-------|---|--|------------------------|-----------------|-----|
| In+++ | vlt | NaClO4 | 25°C | 0.50M | U | | K1=8.8 B2=16.20 K3=6.0 | 1966CBb (37997) | 284 |
|-------|-----|--------|------|-------|---|--|------------------------|-----------------|-----|

| | | | | | | | | | |
|-------|-----|--------|---|-------|---|--|-------------------------|-----------------|-----|
| In+++ | dis | oth/un | ? | 0.10M | U | | K1=8.08 B2=14.3 B3=18.6 | 1960STb (37998) | 285 |
|-------|-----|--------|---|-------|---|--|-------------------------|-----------------|-----|

| | | | | | | | | | |
|-------|----|--------|------|-----|---|--|----------------|-----------------|-----|
| 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 B(InL(His))=18.14 | 1983JKb (38623) | 287 |

| | | | | | | | | | |
|-------|-----|------|------|-------|---|--|---------------------------|-----------------|-----|
| In+++ | vlt | KN03 | 30°C | 0.50M | U | | K1=8.30 B2=14.38 B3=20.94 | 1980PKc (38624) | 288 |
|-------|-----|------|------|-------|---|--|---------------------------|-----------------|-----|

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 | KN03 | 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 B(InL(His))=16.37 | 1983JKb (39820) | 290 |
| In+++ | vlt | NaClO4 | 30°C | 0.10M | C | M | | K1=6.65 B2=14.39 B(InLA)=14.28 | 1980JKa (39821) | 291 |

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 | | | B3=11.1 | 1982SAa (40161) | 292 |

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 B(InHL)=18.858 B(InHL2)=33.391 B(InH-1L)=11.25 | 1976KSe (41272) | 293 |

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 | | | B3=28.5 | 1987USa (41355) | 294 |

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 B3=5.20 | 1981SBf (41577) | 295 |

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.HS03

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.S02.CH2CH2.HS03

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.CO0H

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=malonic 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 | | 1989MAa (46139) | 312 |

K(In+H3L=InH-1L+4H)=-7.3
K(2InH-1L=In2H-2L2)=-11.72

K(UO2+In+2H3L=InUO2H-2L2+8H)=-11.30

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|-------|-----|--------|------|-------|-----|-------|-------------|-----------------|--------|
| In+++ | gl | NaClO4 | 20°C | 0.10M | U | | | 1985SAa (46140) | 313 |

B(InH-1L)=5.02
K(In+H-1L)=21.02

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|-------|-----|--------|------|------|-----|-------|-------------|-----------------|--------|
| In+++ | gl | oth/un | 25°C | ? | U | M | | 1972MKc (46141) | 314 |

K(In+UO2+2H3L=UO2InH-2L2+8H)=-11.58

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|-------|-----|--------|------|------|-----|-------|-------------|-----------------|--------|
| In+++ | dis | oth/un | 25°C | pH 4 | U | M | | 1970AKa (46142) | 315 |

Keff(InL2+0.5(UO2L)2=InUO2L2+L)=2.86

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

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

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

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*****
C6H20N2O12P4      H8L      EDTPA      CAS 1429-50-1 (434)
Ethane-1,2-bis(iminobis(methylenephosphonic acid)); ((H2O3PCH2)2NCH2.)2
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----

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In+++      dis NaClO4 20°C 1.00M U      1983KDd (52344) 333
K(In+H5L)=13.2
-----

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*****
C7H5NO4      H2L      Quinolinic acid  CAS 89-00-9 (567)
2,3-Pyridinedicarboxylic acid; C5H3N.(COOH)2
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Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
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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.

C7H5N04 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 B3=20.3 B4=21.8 | 1983PBa (52782) | 335 |

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

| | | | | | | | | | | |
|-------|----|--------|------|-----|---|---|---|---------------------|-----------------|-----|
| 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

C7H5N05 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 K3=5.86 | 1971KHb (53051) | 337 |

C7H602 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 | | | K(InL3+TOPO)=0.97 K(InL3+2TOPO)=1.86 | 2001NCa (53677) | 338 |

TOPO is trioctylphosphane oxide. Medium: CCl4.

C7H602S 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 |

C7H603 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; H03S.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 K3=9.23 | 1994MRa (56440) | 344 |
|-------|----|-----|------|-------|---|--|---------------------------------|-----------------|-----|

| | | | | | | | | | |
|-------|----|-----|------|-------|---|--|---------------------------------|-----------------|-----|
| In+++ | gl | KCl | 25°C | 0.10M | C | | K1=11.85 B2=22.48 K3=9.23 | 1992CMb (56441) | 345 |
|-------|----|-----|------|-------|---|--|---------------------------------|-----------------|-----|

| | | | | | | | | | |
|-------|----|------|------|-------|---|--|----------------------------------|-----------------|-----|
| In+++ | gl | NaCl | 25°C | 0.15M | M | | K1=13.60 B2=23.93 B3=32.93 | 1990CLa (56442) | 346 |
|-------|----|------|------|-------|---|--|----------------------------------|-----------------|-----|

 C7H12O4 H2L CAS 534-59-8 (480)
 Butylpropanedioic acid (Butylmalonic acid); H00C.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 K3=3.14 | 1976DGd (57339) | 347 |
|-------|----|--------|------|-------|---|--|--------------------------------|-----------------|-----|

 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

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

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

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

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;

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

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

K(In+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 K(In+H5L)=13.0 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 K(In+H5L)=12.2 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 K(In+HL=InHL)=2.84 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

$$K_{out}(In+HL)=0.57$$
[illegible]

| | | | | | | | | | |
|-------|----|--------|---|---|---|---------|----------|-----------------|-----|
| In+++ | sp | oth/un | ? | ? | U | K1=10.9 | B2=19.00 | 1973BIb (64554) | 381 |
|-------|----|--------|---|---|---|---------|----------|-----------------|-----|

4-(2'-Thiazolylazo)-resorcinol; C₃H₂NS.N:N.C₆H₃(OH)₂

In+++ sp NaCl04 ? 0.10M U 1969HSd (64709) 382

```
In+++      gl  alc/w  25C  50%  U                               1967NPb (64710) 383
```

Medium: 50% MeOH, 0.1 M NaClO₄

2-Acetoxybenzoic acid, Acetylsalicylic acid; CH3.CO.O.C6H4.COOH

In+++ vlt NaCl04 30C 1.0M U K1=4.48 B2=4.70 1968GJa (64897) 384

$$B3=6.48$$

B4=6.81

B5=8.13

Phenylmalonic acid; $\text{HOOC} \cdot \text{CH}(\text{C}_6\text{H}_5) \cdot \text{COOH}$

```
In+++      gl  NaCl04 30C 0.10M U      K1=6.09    B2=11.42  1976DGd (64995) 385
```

N,N-Dimethyl-2,3-dihydroxy-5-sulfonatobenzamide; $\text{HSO}_3.\text{C}_6\text{H}_2(\text{OH})_2.\text{CONMe}_2$

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 K3=9.4 | 1994MRa (66797) | 387 |

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 | KN03 | 25°C | 0.1M | U | | | K1=24.24 K(In+HL)=17.15 | 1976GDc (67137) | 388 |

C9H18N2O4 H2L CAS 18992-11-5 (5913)
N,N-Dihydroxynonanediarnide; HN(OH).CO.(CH2)7.CO.NH(OH)

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg | K values | Reference | ExptNo |
|-------|-----|--------|------|-------|-----|-------|----|----------|-----------------|--------|
| In+++ | gl | NaN03 | 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 | | | B3=29.7 | 1987USa (67990) | 390 |

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 EtNC104

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.

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|-------|-----|--------|------|------|-----|-------|----------------|-----------------|--------|
| 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 K3=8.86 | 1977SMc (70048) | 397 |
|-------|----|--------|------|-----|-------|--|---------------------------|-----------------|-----|

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

| | | | | | | | | | |
|-------|----|-------|---|------|---|--|-----------------------|-----------------|-----|
| In+++ | sp | alc/w | ? | 100% | U | | K1=12.2 B2=23.9 B3=35 | 19630Ha (70049) | 398 |
|-------|----|-------|---|------|---|--|-----------------------|-----------------|-----|

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 B(InH2L2)=32.00 B(In(OH)L2)=20.74 | 1978THc (70066) | 399 |
|-------|----|--------|------|-----|---|--|--|-----------------|-----|

 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 K3=7.10 | 1985DAb (70177) | 400 |
|-------|----|--------|------|-------|---|--|--------------------------|-----------------|-----|

 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 K(In+HL)=16.54 | 1973GKd (73146) | 403 |

C10H16N2O8 H4L EDTA CAS 60-00-4 (120)
1,2-Diaminoethane-N,N,N',N'-tetraethanoic acid, Sequesteric acid;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|-------|-----|--------|------|-------|-----|-------|--|-----------------|--------|
| In+++ | EMF | KNO3 | 25°C | 0.10M | C | | K1=25.09 K(InL+H)=1.90 K[In(OH)2L+]=10.80 K(In(OH)L+H)=8.36 | 1997DFa (73876) | 404 |

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|-------|-----|--------|------|-------|-----|-------|--|-----------------|--------|
| In+++ | gl | KNO3 | 25°C | 0.50M | C | M | K(InL+H)=0.66 *K(InL)=-8.22 K(InL+F)=0.9 K(InL+S)=9.4 | 1989TBa (73877) | 405 |

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|-------|-----|--------|------|-------|-----|-------|--|-----------------|--------|
| In+++ | gl | KNO3 | 25°C | 0.50M | C | M | K(InL+H)=0.66 *K(InL)=-8.22 K(InL+F)=0.9 K(In(OH)L+HS=InLS)=9.4 | 1986TBa (73878) | 406 |

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|-------|-----|--------|------|-------|-----|-------|-------------|-----------------|--------|
| In+++ | gl | NaClO4 | 20°C | 0.10M | U | | K1=20.71 | 1985SAa (73879) | 407 |

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|-------|-----|--------|------|-------|-----|-------|-------------|-----------------|--------|
| In+++ | gl | KNO3 | 35°C | 0.10M | U | | K1=25.00 | 1980KHb (73880) | 408 |

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|-------|-----|--------|------|-------|-----|-------|---|-----------------|--------|
| In+++ | EMF | NaClO4 | 20°C | 0.10M | U | T | K1=25.3 K(InL+H)=1.5 K(InL+OH)=5.33 | 1967BAC (73881) | 409 |

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|-------|-----|--------|------|------|-----|-------|---------------|-----------------|--------|
| In+++ | sp | NaClO4 | 25°C | 1.0M | U | T | K(In+HL)=15.0 | 1965BRc (73882) | 410 |

| | | | | | | | | |
|-------|-----|--------|------|-------|---|-----------------|-----------------|-----|
| 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

```

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C11H8O4      HL      CAS 7555-37-5 (4812)
3-Acetyl-4-hydroxycoumarin

```

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

```

```

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; CH0.C9H30(:O)(CH3)(OH)

```

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

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```

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;

In+++ gl diox/w 35°C 50% U 1971MAa (77422) 432
K(In+HL)=3.84
K(In+2HL)=6.64

C11H9N3O2 H2L PAR CAS 1141-59-9 (636)
4-(2'-Pyridylazo)-1,3-dihydroxybenzene; C5H4N.N:N.C6H3(OH)2

In+++ sp NaCl04 25♦C 0.80M U I 1985MBa (77551) 433
B(In+H3L=InHL+2H)=-1.44

In+++ gl diox/w 25°C 50% U K1=12.54 B2=24.00 1978SMb (77552) 434
Medium: 50% dioxane/H2O, 0.20 M NaCl04.

In+++ sp NaCl04 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;

```
In+++      EMF KN03      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)

In+++ vlt KN03 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

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 | 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 | 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 | 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 | 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;

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

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| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|--|-----|--------|------|-------|-----|-------|-----------------|-----------------|--------|
| In+++ | gl | NaNO3 | 25°C | 0.10M | C | | B(InH-3L)=-9.53 | 1995EOa (82932) | 459 |
| ***** | | | | | | | | | |
| 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 B(InHL)=42.2 | 1995MWa (84100) | 461 |
| ***** | | | | | | | | | |
| 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 | | K(2In+H2L=In2H-2L+4H)=-8.9 | 1981PSa (84665) | 463 |
| ***** | | | | | | | | | |
| 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 B3=24.32 | 1972GDb (85157) | 464 |
| Medium: 50% dioxan, 0.25 M NaClO4 | | | | | | | | | |
| In+++ | dis | NaClO4 | 25°C | 0.10M | U | | K1=9.2 B2=18.4 B3=26.3 | 1968SAb (85158) | 465 |
| ***** | | | | | | | | | |
| 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 | | | K(In+2H2L)=11.5 | 1971NOc (86737) | 466 |
| ***** | | | | | | | | | | |
| 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 | | | K(In+H3L)=8.4 K(In+H4L)=7.0 | 1971NPb (86936) | 468 |
| ***** | | | | | | | | | | |
| 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 | | | K1eff=5.05 | 1985RGa (87616) | 469 |
| 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 | | | K(?)=6.62 | 1966GUa (87765) | 471 |
| ***** | | | | | | | | | | |
| 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 K(InL+H)=1.36 K[In(OH)L+H]=8.78 | 1997DFa (88690) | 473 |
|-------|-----|------|------|-------|---|--|--|-----------------|-----|

| | | | | | | | | | |
|-------|----|------|------|-------|---|--|----------|-----------------|-----|
| 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 K(InL+OH)=5.00 | 1967BAC (88692) | 475 |
|-------|-----|--------|------|-------|---|--|----------------------------|-----------------|-----|

| | | | | | | | | | |
|-------|----|--------|---|-------|---|--|----------|-----------------|-----|
| In+++ | ix | oth/un | ? | 0.50M | U | | K1=25.05 | 1963RMb (88693) | 476 |
|-------|----|--------|---|-------|---|--|----------|-----------------|-----|

| | | | | | | | | | |
|-------|-----|--------|------|-------|---|--|------------------|-----------------|-----|
| In+++ | dis | NaClO4 | 20°C | 0.10M | U | | B(InL(OH))=33.46 | 1963STc (88694) | 477 |
|-------|-----|--------|------|-------|---|--|------------------|-----------------|-----|

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 K(In+HL)=18.45 K(In+H2L)=11.68 K(In+2H3L)=14.17 | 1974LKc (89291) | 481 |
|-------|-----|--------|---|-------|---|--|---|-----------------|-----|

Distribution between H2O-phase and 0.1% solution of di-2-ethylhexylphosphonic 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 K(InL+OH)=2.06 | 1967BAC (89293) | 483 |
|-------|-----|--------|------|-------|---|--|---------------------------|-----------------|-----|

| | | | | | | | | | |
|-------|----|--------|------|---|---|---|-----------------------------------|-----------------|-----|
| In+++ | sp | oth/un | 19°C | ? | U | M | K1=28.42 K(In+FeL=InL+Fe)=0.91 | 1966ZAc (89294) | 484 |
|-------|----|--------|------|---|---|---|-----------------------------------|-----------------|-----|

In+++ ix oth/un ? 0.50M U K1=27.65 1963Rmb (89295) 485

C14H23O3P HL CAS 13244-67-2 (8312)

Phenylphosphonic acid mono-octyl 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


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-----
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)
-----

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-----
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
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
In+++      sp  NaClO4 20°C 0.10M U      K1=5.58      1989K0a (91035) 493
-----
In+++      sp  NaClO4 20°C 0.10M U      B(InH4L)=7.73      1976KTb (91036) 494
*****
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      K(In+HL=InL+H)=1.46      1966GNa (91176) 495
Medium: 20% EtOH
*****
C15H11N3O      HL      PAN      CAS 85-85-8 (572)
1-(2-Pyridylazo)-2-naphthol; C5H4N.N:N.C10H6.OH
-----

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-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
In+++      sp  NaClO4 25°C 0.20M U I      K(In+HL=InL+H)=1.2      1985HSa (91224) 496
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      K(InOH+L)=15.11      1971BRe (91227) 499
Medium: 20% EtOH, 0.1 M HClO4
-----

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 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-naphthalylidisulfonic 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;

| | | | | | | |
|-------|----|-----|------|---------|--------------------------|---------------------|
| In+++ | g1 | KCl | 25♦C | 0.10M C | K1=23.9 K(InL+H)=3.44 | 1991CMb (94906) 512 |
|-------|----|-----|------|---------|--------------------------|---------------------|

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

| | | | | | | |
|-------|----|-----|------|---------|---------------|---------------------|
| In+++ | g1 | 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

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;

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 21C 1.0M C K1=6.9 B2=14.00 1978NMb (95887) 516
B3=20.6

Method: distribution of ^{114}In between 1.0 M NaClO_4 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;

```
In+++      gl  NaClO4 25C 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-methylanabasiny1-alpha-azo)benzene;

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

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 K(InL+H)=1.8 K(In2(OH)L2+H=2InL)=2.1 | 1997DQa (96457) | 520 |

Medium: Me4NN03

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 K(InL+H)=3.33 | 1991CMb (96651) | 521 |

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 K(InL+H)=3.43 | 1993MMA (97403) | 522 |

C18H20N2O6 H4L EHPG CAS 10328-28-6 (429)
N,N'-Ethylene-bis-(2-(2'-hydroxyphenyl))glycine; (H00CCH(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 K(InL+H)=4.47 K(InHL+H)=4.78 K(InLOH+H)=10.57 | 1989BMD (97432) | 523 |

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

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg | K values | Reference | ExptNo |
|-------|-----|--------|------|-------|-----|-------|----|----------|-----------------|--------|
| 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 | 0.16M | C | | | K1=22.6 K(In+L=InL(OH)+H)=15.44 K(InL(OH)+H)=7.16 | 1997CRa (97545) | 525 |
|-------|----|------|----|-------|---|--|--|---|-----------------|-----|

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 | 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-diethanoic acid;

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

| | | | | | | | | | | |
|-------|----|-------|----|-------|---|--|--|---------------------------|-----------------|-----|
| In+++ | gl | R4N.X | 25 | 0.10M | C | | | K1=18.94 K(InL+H)=2.38 | 1997CDb (97786) | 527 |
|-------|----|-------|----|-------|---|--|--|---------------------------|-----------------|-----|

Medium: NMe4NO3

X

C18H30N4O12 H6L TTHA CAS 869-52-3 (694)
Triethylenetetraaminehexaethanoic acid;((HOOCH2)2N.CH2.CH2.N(CH2.COOH).CH2)2

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

| | | | | | | | | | | |
|-------|-----|------|----|-------|---|--|--|---|-----------------|-----|
| In+++ | EMF | KNO3 | 25 | 0.10M | C | | | K1=26.88 K(InL+H)=7.30 K(InL+In)=9.0 K(InHL+H)=2.33 K[In2(OH)L+H]=4.2 | 1997DFa (98055) | 528 |
|-------|-----|------|----|-------|---|--|--|---|-----------------|-----|

| | | | | | | | | | | |
|-------|----|-----|----|-------|---|--|--|----------|-----------------|-----|
| In+++ | gl | KCl | 25 | 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 | 0.10M | C | | | K1=21.89 K(InL+H)=2.71 | 1991CMb (98210) | 530 |
|-------|----|-----|----|-------|---|--|--|---------------------------|-----------------|-----|

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.

C19H1208S 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 |
|-------|----|--------|------|--|---|---|----------|-----------------|-----|

C19H1407S 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 Me4NN03.

C20H11N09S2 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 |
|-------|----|-----|------|-------|---|--|----------------------|-----------------|-----|

C20H11N09S2 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)

C20H11N09S2 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 B1 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

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

In+++ gl KCl 25°C 0.10M U K1=27.76 1994MMe (100003) 543
K(InL+H)=3.48

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)=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 | 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 | 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-methylanabasiny-1- α -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 | 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 | 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 | 0.16M | C | | K1=27.56 | 1997C0a (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 | 0.10M | C | | K1=28.96 K(InL+H)=8.37 K(InHL+H)=5.84 K(InH2L+H)=4.69 | 1994MMf (103058) | 573 |
|-------|----|-----|----|-------|---|--|--|------------------|-----|

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 | 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 | 0.10M | C | | K1=25.70 K(InL+H)=8.87 K(InHL+H)=5.55 K(InH2L+H)=4.42 | 1992MSa (103204) | 575 |
|-------|----|-----|----|-------|---|--|--|------------------|-----|

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 | 0.10M | M | | K1=26.30 K(In(OH)L+H=InL+H2O)=8.37 | 1990MMa (103215) | 576 |
|-------|----|-----|----|-------|---|--|---------------------------------------|------------------|-----|

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 | 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)diaminoethane
 diethanoic 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-t
 riene;

| 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 K(In+HL)=20.60 K(InHL+H)=3.15 K(InL+H)=10.00 | 1989EHa (103817) | 580 |

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 K(InL+H)=4.68 K(InHL+H)=1.71 K(InL+In)=5.66 K(In2L(OH)+H)=2.38 | 1998ACc (104307) | 582 |

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 1997C0a (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;

| 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"-sul
fonic 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),13,1
5-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;

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

| | | | | | | | | | | |
|-------|----|--------|----|-------|---|--|--|--|------------------|-----|
| In+++ | sp | oth/un | 25 | 0.10M | C | | | | 1997ASa (106606) | 597 |
|-------|----|--------|----|-------|---|--|--|--|------------------|-----|

K1eff=5.53

K2eff=3.89

Medium: 0.10 M acetate buffer, pH 5.0.

| | | | | | | | | | | |
|-------|----|--------|----|-------|---|--|--|--|------------------|-----|
| In+++ | sp | NaClO4 | 25 | 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 | 0.10M | U | | | | 1983YMa (106788) | 599 |
|-------|----|--------|----|-------|---|--|--|--|------------------|-----|

K1=16.65

K(InH-1L+H)=5.73

K(InH-2L+H)=7.17

K(InH-3L+H)=9.44

K(InL+H)=3.21

Polymer L (3532)

Human transferrin;

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

| | | | | | | | | | | |
|-------|----|------|----|-------|---|--|--|--|------------------|-----|
| In+++ | sp | KN03 | 25 | 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

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EXPLANATORY NOTES

DATA Flags are :-

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

EVALUATION Flags are :-

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

END Experiments recorded for
from SC-Database on Saturday, 01 January, 2000 at 00:38:32