SC-Database
Software version = 5.81  Data version = 4.62
Experiment list contains 704 experiments for
 (no ligands specified)
 Metal : Be++
 (no references specified)
 (no experimental details specified)

**********
e-  HL  Electron  (442)
Electron;
---
| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | cal | none | 25°C | 0.0 | M | | 1965BTb (363) | | 1 |
| | | | | | | | K(Be+2e=Be(s))=-66.5 to -66.8 | | |
---
| Be++ | EMF | oth/un | 350°C | 100% | U | | 1959SCf (364) | | 2 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | K=2.36-4904/T | | |

Medium:(K,Li)Cl(liquid,eutectic),x units. K: Be+Be(s)=2Be+. 350-600 C
---
| Be++ | EMF | none | 25°C | 0.0 | U | | 1952LAb (365) | | 3 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | K(Be+2e)=-62.5(-1.85 V) | | |

Method:combination of thermodynamic data
**********
Br-  HL  Bromide  CAS 10035-10-6  (19)
Bromide;
---
| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | dis | NaClO4 | 25°C | 4.0M | U | | K1=-0.7 B2=-0.8 | 1971SKb (1737) | 4 |
---
| Be++ | dis | NaClO4 | 20°C | .691M | U | | K1=-0.42 | 1965MJa (1738) | 5 |
|---|---|---|---|---|---|---|---|---|---|
**********
CO2  L  Carbon dioxide  CAS 124-38-9  (1759)
Carbon dioxide;
---
| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 3.0M | C | M | | 1987BGa (2827) | 6 |
| | | | | | | | B(-3,3,1)=-8.90 | | |
| | | | | | | | B(-6,5,2)=-17.24 | | |
| | | | | | | | B(-9,6,2)=-29.46 | | |
| | | | | | | | B(-2,1,1)=-10.4 | | |

B(p,q,r)=pH+qBe+rL=HpBeqLr
---
| Be++ | gl | NaClO4 | 25°C | 3.0M | C | M | | 1987BGb (2828) | 7 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | *K1=-6.02, B(-2,1,1)=-10.12 | | |
| | | | | | | | B(-3,1,1)=-16.68 | | |
| | | | | | | | B(-4,1,1)=-24.22 | | |

B(-9,3,3)=-45.5
B(-10,3,3)=-52.0. *Kso=6.18. B(p,q,r) = pH+qBe+rL=HpBeqLr

**********

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

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | sol | KNO3 | 25°C | 1.00M | U | T M | K1=7.0 | B2=8.95 | 1981SGa (3160) | 8 |
| B(Be(CO3)F)=10.09 | | | | | | | | | | |
| Be++ | sol | NaClO4 | 25°C | 1.00M | U | | | | 1980SMa (3161) | 9 |
| | | | | | | | K(Be(OH)2+L=Be(OH)L+OH)=0.43 | | | |
| | | | | | | | K(Be(OH)L+L=BeL2+OH)=0.37 | | | |

**********

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

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | oth | oth/un | 25°C | | U | | | | 1974HEb (3634) | 10 |
| | | | | | | | K1out=2.85 | | | |
| | | | | | | | (K1out/K1)=-1.0 | | | |

**********

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

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | cal | non-aq | 25°C | 100% | U | IH | K1=2.9 | B2=3.8 | 1995KSb (4520) | 11 |
| Medium: N,N-Dimethylacetamide, 0.1 M Bu4NClO4. DH(K1)=4.0 kJ mol-1, | | | | | | | | | | |
| DH(B2)=17. Data also in DMF: K1=2.3, B2=3.2; DH(K1)=5.8, DH(B2)=21 | | | | | | | | | | |
| Be++ | ix | NaClO4 | 20°C | 0.50M | U | I | K1=0.8 | | 1971BNa (4521) | 12 |
| Medium: HClO4. In 80% MeOH/H2O: K1=-0.15; 80% PrOH/H2O: K1=0.34; | | | | | | | | | | |
| 80% acetone/H2O: K1=0.53; 80% dioxan/H2O: K1=0.82 | | | | | | | | | | |
| Be++ | dis | NaClO4 | 25°C | 4.0M | U | | K1=-0.85 | B2=-0.70 | 1971SKb (4522) | 13 |
| Be++ | dis | NaClO4 | 20°C | .691M | U | | K1=-0.36 | | 1965MJa (4523) | 14 |
| Be++ | ix | NaClO4 | 18°C | 0.50M | U | | K1=1.11 | B2=0.30 | 1963KBb (4524) | 15 |
| | | | | | | | B3=1.40 | | | |
| Be++ | dis | oth/un | 20°C | var | U | | K1=-0.66 | | 1961HGa (4525) | 16 |

**********

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

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

```
-------------------------------------------------------------------------------
Be++       ISE NaClO4 25°C 3.00M C        K1=5.21   B2=9.57   1991AGa  (6768)  17
                                          B(-3,3,1)=-4.18
                                          B(-3,3,2)=-0.67
B(p,q,r); pH+qBe+rL=HpBeqLr
-------------------------------------------------------------------------------
Be++       vlt NaClO4 25°C  1.0M U        K1=5.28        1970GMj  (6769)  18
-------------------------------------------------------------------------------
Be++       nmr oth/un 25°C  var  U        K1=3.0    B2=5.70   1970HRa  (6770)  19
                                          K3=2.0
                                          K4=1.1
Method: nmr. -10 to 25 C
-------------------------------------------------------------------------------
Be++       ISE NaCl   25°C  1.0M U TIH    K1=4.90   B2=8.66   1969MBc  (6771)  20
                                          B3=11.45
                                          B4=12.88
DH(K1)=-1.7 kJ mol-1,DS=88.7 J K-1 mol-1; DH(K2)=-5.0,DS=55.6;  DH(K3)=-1.3,
DS=49.4; DH(K4)=-2.1,DS=20.9. Method: emf with F- and H electrodes
-------------------------------------------------------------------------------
Be++       ISE NaCl    0°C  1.0M U TI     K1=4.94   B2=8.80   1969MBc  (6772)  21
                                          B3=11.53
                                          B4=13.00
Method: fluoride and H electrodes. At 60 C: K1=4.9,B2=8.6,B3=11.25,B4=12.66.
In 1 M NaClO4: K1=4.99, B2=8.80, B3=11.61, B4=13.05
-------------------------------------------------------------------------------
Be++       oth oth/un   ?   0.0  U                       1968BSa  (6773)  22
                                          K1out=0.18
Method:estimated
-------------------------------------------------------------------------------
Be++       nmr oth/un var   var  U   H                  1968FHa  (6774)  23
                                          K4=1.1
2-50 C. DH(K4)=0 kJ mol-1, DS=21 J K-1 mol-1
-------------------------------------------------------------------------------
Be++       EMF NaClO4 25°C 0.50M U   H                  1967AHa  (6775)  24
DH(K1)=-1.67 kJ mol-1, DS=92.0 J K-1 mol-1. At I=0 corr.:DH(K1)=-0.8, DS=113
-------------------------------------------------------------------------------
Be++       ix  NaNO3    ?  0.16M U        K1=3.64   B2=5.90   1966PPa  (6776)  25
Method:cation exchange. By anion exchange:B2=5.93, B3=7.76, B4=9.12
-------------------------------------------------------------------------------
Be++       EMF oth/un 25°C 0.50M U        K1=4.71   B2=8.32   1965BGb  (6777)  26
                                          K3=2.80
                                          K4=2.27
-------------------------------------------------------------------------------
Be++       dis NaClO4 20°C 2.00M U                       1961HGa  (6778)  27
                                          K(Be+HF=BeF+H)=1.99
                                          K(BeF+HF=BeF2+H)=1.12
                                          K(BeF2+HF=BeF3+H)=0.38
Medium: HClO4
-------------------------------------------------------------------------------
Be++       sol oth/un 25°C  var  U        K1=4.29        1961TPc  (6779)  28
```

```
--------------------------------------------------------------------------------
Be++       sol oth/un 25°C  var  U        K1=5.64   B2=8.04   1960TVa  (6780)  29
--------------------------------------------------------------------------------
Be++       sp  oth/un   ?   var  U        K1=5.4         1959BSg  (6781)  30
--------------------------------------------------------------------------------
Be++       EMF NaClO4 25°C 0.50M U T H                  1955YAa  (6782)  31
                                       K(Be+HF=BeF+H)=2.12
                                       K(BeF+HF=BeF2+H)=0.84
                                       K(BeF2+HF=BeF3+H)=0.03
At 0 C: *K1=2.23, *K2=0.85, *K3=-0.78 ?. 50 C: *K1=1.86, *K2=0.67, *K3=-0.73
DH(*K1)=-14.2 kJ mol-1, DS=6.2 J K-1 mol-1; DH(*K2)=-7.3, DS=-8
--------------------------------------------------------------------------------
Be++       sp  oth/un   ?   var  U        K1=5.89        1951KLb  (6783)  32
--------------------------------------------------------------------------------
Be++       sol oth/un 25°C  var  U        K1=4.29   B2=2.0    1949TDa  (6784)  33
********************************************************************************
NO3-                   HL    Nitrate          CAS 7697-37-2  (288)
Nitrate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       dis NaClO4 25°C  4.0M U        K1=-0.63       1971SKb  (9585)  34
--------------------------------------------------------------------------------
Be++       ix  NaClO4 18°C 0.50M U        K1=-0.60  B2=1.62   1963KBb  (9586)  35
********************************************************************************
OH-                    HL    Hydroxide          (57)
Hydroxide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C  I                    1997CDc (11023)  36
                                       *B(2,1)=-3.20
                                       *B(3,3)=-8.68
                                       *B(5,6)=-18.31
                                       *B(6,8)=-25.77
*B2=-11.68. In 80% DMSO/H2O, *B(2,1)=-2.98, *B(3,3)=-9.28, *B(5,6)=-18.03,
*B(6,8)=-25.26, *B2=-9.59. Additional method: 9Be nmr.
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C  3.0M C  I                   1987BRb (11024)  37
                                       *B(2,1)=-3.23
                                       *B(3,3)=-8.656
                                       *B(5,6)=-18.81
                                       *B(6,8)=-26.70
*B(1,2)=-11.09. Data also computed for I=0.0. *Kso=6.87 at I=0.0
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M U                      1987MDa (11025)  38
                                       *B(3,3)=-8.92
                                       *B(2,1)=-3.20
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C  1.0M C                      1987MMa (11026)  39
```

```
                                        *B(2,1)=-3.52
                                        *B(3,3)=-8.700
                                        *B(6,8)=-26.82
--------------------------------------------------------------------------------
Be++       gl  KNO3   25°C 0.10M C                      1983BEc (11027)  40
                                        *B(1,2)=-11.320
                                        *B(2,1)=-2.955
                                        *B(3,3)=-8.804
--------------------------------------------------------------------------------
Be++       cal NaClO4 25°C  3.0M C  IH                  1979IOa (11028)  41
Medium: 3.0 M LiClO4. DH(*B(2,1))=18.6 kJ mol-1, DH(*B(3,3))=61.7.
Also data for 0.1 and 0.2 mol fraction dioxan in H2O.
--------------------------------------------------------------------------------
Be++       sol NaClO4 25°C 0.01M U                      1978MSa (11029)  42
                                        *K1=-4.6
                                        *K2=-2.7
--------------------------------------------------------------------------------
Be++       sol oth/un 150°C    ?  U T                   1977SKb (11030)  43
                                        *Ks(BeO(s)+H)=-1.0
                                        *Ks(BeO(s)+H2O)=-5.7
                                        *Ks(BeO(s)+H2O+OH)=-3.0
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 3.00M C  I                   1975TKb (11031)  44
                                        *B(2,1)=-3.04
                                        *B(3,3)=-8.671
                                        *B(6,8)=-27.337
Medium=3(LiClO4)
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.10M C  I                   1975TKb (11032)  45
                                        *K1>=-6.3
                                        *B(2,1)=-3.32
                                        *B(3,3)=-8.807
                                        *B2=-11.35
Medium=0.1(LiClO4)
--------------------------------------------------------------------------------
Be++       gl  alc/w  25°C  31%  C  I                   1975TKb (11033)  46
                                        *B(2,1)=-3.50
                                        *B(1,2)=-11.38
                                        *B(2,2)=-7.35
                                        *B(3,3)=-8.541
I=3(LiClO4); 30.77 w/w MeOH/H2O(0.2mole fraction). Data also in 0.2 mole fr.
EtOH/H2O, acetone/H2O and dioxan/H2O
--------------------------------------------------------------------------------
Be++       gl  KNO3   25°C 1.00M U                      1975VGa (11034)  47
                                        *B(2,1)=-3.22
                                        *B(1,2)=-11.26
                                        *B(3,3)=-8.87
--------------------------------------------------------------------------------
Be++       gl  NaClO4 60°C 3.00M U                      1973CGa (11035)  48
                                        *B(2,1)=-2.9
```

```
                                        *B(2,2)=-6.25
                                        *B(3,3)=-7.7
                                        *B(3,4)=-13.22
-------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 3.00M U  I                    1969KMa (11036)  49
                                        *B(3,3)=-8.75
Medium: 20% v/v D2O-H2O: *B(3,3)=-9.28(80% D2O). L=OH and OD
-------------------------------------------------------------------------------
Be++       gl  oth/un 25°C 0.10M U T                     1969LAc (11037)  50
                                        *B(2,1)=-2.67
                                        *B(3,3)=-7.45
                                        *B(3,4)=-14.02
                                        *B(6,8)=-23.4
*B(6,9)=-29.2. Medium:(K2)SO4
-------------------------------------------------------------------------------
Be++       gl  KCl    25°C 2.00M U                       1969LAc (11038)  51
                                        *B(2,1)=-3.66
                                        *B(3,2)=-5.99
                                        *B(3,3)=-8.03
                                        *B(3,4)=-15.6
*B(6,8)=-28.1
-------------------------------------------------------------------------------
Be++       kin NaClO4 20°C 0.10M U                       1969SWa (11039)  52
                                        *K1=-5.7
                                        *K2=-5.5
Also in 0.1 M KCl
-------------------------------------------------------------------------------
Be++       oth NaClO4 25°C  3.0M U                       1969SWa (11040)  53
                                        K(Be+Be(OH)2=2BeOH)=-1.9
Method:Estimated data
-------------------------------------------------------------------------------
Be++       gl  KNO3   25°C 2.00M U                       1968LCa (11041)  54
                                        *B(2,1)=-3.28
                                        *B(3,3)=-8.90
                                        *B(3,4)=-16.0
                                        *B(6,8)=-27.5
*B(6,9)=-34.5
-------------------------------------------------------------------------------
Be++       gl  KCl    25°C  3.0M U                       1968PGc (11042)  55
                                        *B(2,1)=3.18
                                        *B(3,3)=-8.91
-------------------------------------------------------------------------------
Be++       dis NaClO4 19°C       U        K1=10.8   B2=18.3   1968SKc (11043)  56
-------------------------------------------------------------------------------
Be++       EMF NaCl    0°C  1.0M U T H                   1967MBc (11044)  57
                                        *B(3,3)=-10.08
                                        *B(2,1)=-3.64
                                        *B(5,7)=-28.66
*B(3,3)=-8.91(25 C), -7.67(60 C). DH=66.9 kJ mol-1, DS=64 J K-1 mol-1.
*B(2,1)=-3.43(25 C),-2.93(60 C);DH=20.9,DS=5.8. *B(5,7)=-22.11(60 C);DH=189
```

```
--------------------------------------------------------------------------------
Be++       gl  diox/w 25°C 0.20M U                      1967OHa (11045)  58
                                        *B(2,1)=-3.66
                                        *B(2,2)=-7.15
                                        *B(3,3)=-8.75
                                        *B2=-10.84
Medium: 0.2 dioxan + 0.8 H2O, 3 M LiClO4. *K1 < -6
--------------------------------------------------------------------------------
Be++       gl  diox/w 25°C  35%  U  I                  1967OKa (11046)  59
                                        *B(3,3)=-8.65
                                        *B(2,1)=-3.29
                                        *B2=-11.5
Medium: 35% dioxan 3 M LiClO4. In 3 M LiClO4: *B(3,3)=-8.74, *B(1,2)=-3.27,
*B2=-11.5, *K1 < -5.4
--------------------------------------------------------------------------------
Be++       gl  NaClO4   ?  0.50M U                      1965BTa (11047)  60
                                        *B(3,3)=-8.61
                                        *B(2,1)=-3.24
                                        *B2=-11.0
--------------------------------------------------------------------------------
Be++       gl  oth/un 25°C  dil  U                      1965GAb (11048)  61
                                        *B2=-13.65
                                        *B3=-24.11
--------------------------------------------------------------------------------
Be++       sol non-aq 240°C 100%  U T H                 1965SAa (11049)  62
Medium: molten Na/KNO3. 240-510 C. DH(BeO(s)+H2O+2OH=Be(OH)4--)=20.0 kJ m-1,
DS=31.4 J K-1 mol-1
--------------------------------------------------------------------------------
Be++       EMF NaClO4 25°C 3.00M U                      1964HSa (11050)  63
                                        *B(3,3)=-8.664
                                        *B(2,1)=-3.22
                                        *B2=-10.87
--------------------------------------------------------------------------------
Be++       gl  KCl    20°C 0.10M U  I                   1964WEb (11051)  64
                                        *K1=-5.68
                                        *K2 < -6.7
In 0.1 M NaClO4: *K1=-5.71. Method: rapid flow
--------------------------------------------------------------------------------
Be++       cal NaClO4 25°C  3.0M U   H                  1962COa (11052)  65
DH(*B(2,1))=18.5 kJ mol-1, DS=0.8 J K-1 mol-1; DH(*B(3,3))=63.5, DS=47.3
--------------------------------------------------------------------------------
Be++       gl  NaClO4 20°C 0.10M U                      1962SCd (11053)  66
                                        *K1=-5.7
                                        *K2=ca.-7
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C  3.0M U                      1961COc (11054)  67
                                        *B(3,3)=-8.66
                                        *B(2,1)=-3.20
--------------------------------------------------------------------------------
Be++       sol none   25°C  0.0  U                     1960SGb (11055)  68
```

K(Be(OH)2(s)+2H=Be+2H2O)=6.86
*Ks(3,3)=11.67
*B(3,3)=-8.9

*Ks(3,3): K(3Be(OH)2(s)+3H=Be3(OH)3+3H2O)

---

Be++ gl none 25°C 0.0 U 1959ASb (11056) 69
B(2,2)=21.31 or B(3,3)=33.03

K(Be(OH)2(s)=BeOH+OH)=-10.82 or Ks(2,2)-19.5 or Ks(3,3)-28.2

---

Be++ vlt none 19°C 0.0 U 1959KGb (11057) 70
Kso(Be(OH)2)=-25.7

---

Be++ sol none 25°C 0.0 U 1956GGa (11058) 71
K(Be(OH)2(s)+OH)=-2.49
K(Be(OH)2(s)+2OH)=-2.70
*Kso > 6.86
Kso(Be(OH)2) > -21.14

*B(2,2)=-6.80; *Kso: K(Be(OH)2+2H=Be+2H2O)

---

Be++ gl none rt 0.0 U B2=14.04 1956KFb (11059) 72
Kso(Be(OH)2)=-17.7
K(Be(OH)2(s)=Be(OH)2)=-3.66

---

Be++ EMF NaClO4 25°C 3.0M U 1956KSa (11060) 73
*B(3,3)=-8.66
*B(2,1)=-3.24
*B2=-10.9

Method: quinhydrone and H electrodes

---

Be++ gl NaClO4 25°C 1.0M U 1954MAa (11061) 74
*K1=-6.52
*B(2,1)=-3.51

---

Be++ gl R4N.X 22°C 2.0M U 1941BJa (11062) 75
*K1=-6.70

Medium: NH4NO3; *K1: Be+H2O=BeOH+H

---

Be++ EMF oth/un 25°C var C I 1931PRa (11063) 76
*B(2,2)=-6.32
*Ks(2,2)=9.15
Ks(2,2)=-18.57

Medium: BeBr2. In BeI2 *B(2,2)=-6.36, *Ks(2,2)=9.23, Ks(2,2)=-18.48.
Method: H electrode

---

Be++ EMF oth/un 25°C var C 1929PRa (11064) 77
*B(2,2)=-6.85
*Ks(2,2)=8.90

Medium:BeSO4. *Ks(2,2): 2Be(OH)2(s)+2H=Be2(OH)2+2H2). Method: H electrode

---

Be++ sol oth/un rt var U 1913BKa (11065) 78

```
                                        Ks(2,6)=-0.77
                                        Ks(2,4)=-1.19 or -1.4
Ks(2,6):K(2Be(OH)2(s)+4OH=Be2(OH)6); Ks(2,4): K(2Be(OH)2(s)=Be2(OH)4)
--------------------------------------------------------------------------------
Be++       EMF oth/un 25°C  var  C        K1=10.28       1910WOa (11066)  79
                                        *K1=-3.63
Method: H electrode
--------------------------------------------------------------------------------
Be++       kin oth/un 100°C  var  U                       1899LEa (11067)  80
                                        *K1=-4.46
********************************************************************************
PO4---                 H3L    Phosphate        CAS 7664-38-2  (176)
Phosphate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C  3.0M C  I                     1997CIa (13115)  81
                                        K(Be+H3L=BeH2L+H)=0.01
                                        K(Be+2H3L=BeH4L2+2H)=0.59
                                        K(2Be+H3L=Be2HL+2H)=-0.43
                                        K(3Be+3H3L=Be3H3L3+6H)=-2.07
K(3Be+6H3L=Be3H10L6+8H)=1.58, K(3Be+H3L=Be3H-2L+5H)=-8.36
--------------------------------------------------------------------------------
Be++       gl  oth/un 20°C  dil  U    M                 1961CAa (13116)  82
                                        Kso(Be3L2)=-37.7
                                        Ks(Be(NH4)L(s)=Be+NH4+L)=-19.7
********************************************************************************
P2O7----               H4L    Pyrophosphate    CAS 2466-09-3  (198)
Diphosphate; from (HO)2PO.O.PO(OH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  KCl    25°C 0.10M U        K1=10.08  B2=15.45  1968DMa (13564)  83
                                        K(Be+HL)=5.98
********************************************************************************
P3O10-----             H5L                    CAS 10380-08-2  (1001)
Tripolyphosphate; from (HO)2PO.O.PO(OH).O.PO(OH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  R4N.X  20°C 0.10M U   H                   1965ANa (13844)  84
                                        K(BeL+H)=5.35
Medium: Me4NNO3. By calorimetry: DH(K1)=19.6 kJ mol-1
********************************************************************************
SCN-                    HL    Thiocyanate      CAS 463-56-9  (106)
Thiocyanate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       cal non-aq 25°C 100%  U  IH    K1=3.0    B2=5.1    1995KSb (14823)  85
```

B3=7.0
Medium: N,N-Dimethylacetamide, 0.1 M Bu4NClO4. DH(K1)=5.9 kJ mol-1, DH(B2)=10, DH(B3)=8.1. Data also in DMF: K1=2.6, B2=4.4, B3=5.9

---

Be++ ix NaClO4 18°C 1.0M U T K1=0.13 B2=0.13 1971PTa (14824) 86

---

Be++ dis NaClO4 25°C 4.0M U T K1=-0.16 B2=-0.60 1971SKb (14825) 87

---

Be++ dis oth/un var U 1967BMb (14826) 88
Kd(Be+2L=BeL2(EtCOMe))=-0.5

**********

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

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | EMF | none | 25°C | 0.0 | C | H | K1=2.225 | 1988PGc (16024) | 89 |

Method: Hg/Hg2SO4 electrode. K1 derived from data for 0.016-0.04 M BeSO4/H2SO4 solutions. DH(K1)=-23.5 kJ mol-1, DS(K1)=-121 J K-1 mol-1.

---

Be++ kin oth/un 25°C 0.0 U K1=2.22 1974KFa (16025) 90
K1out=2.0
K1in=-0.19

By spectrophotometry: K1=2.16

---

Be++ oth none 25°C 0.0 C K1=2.66 B2= 2.96 1972PIa (16026) 91

Calculated from published osmotic coefficient data.

---

Be++ ISE oth/un 35?°C 0.0 U K1=2.17 1968PRd (16027) 92

---

Be++ dis NaClO4 25°C 1.0M U B2=1.78 1967SSd (16028) 93
B3=2.08

---

Be++ kin oth/un 25°C 0.0 U K1=1.95 1966KWa (16029) 94
K1in/K1out=-0.22
K1out=1.70

---

Be++ ix NaClO4 18°C 0.50M U K1=0.72 1962BKc (16030) 95

**********

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

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | con | oth/un | 18°C | dil | U | | | 1968RVa (17042) | 96 |

Kso=-8.0

**********

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
-------------------------------------------------------------------------
Be++       kin oth/un 25°C  dil  U        K1=0.15        1976GKa (17597)  97
*************************************************************************
CH4O3ClP              H2L                     CAS 2565-58-4  (1973)
Chloromethylphosphonic acid; Cl.CH2.PO3H2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       EMF KCl    25°C 0.10M U        K1=5.29        1968DMb (17929)  98
                                         B(Be2L2)=13.55
*************************************************************************
CH5O3P                H2L                     CAS 13590-71-1  (1752)
Methylphosphonic acid; CH3.PO3H2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C        K1=6.17   B2=11.53  1999AVa (18125)  99
                                       K(BeL+H)=3.3
                                       K(Be+H2L)=2.0
-------------------------------------------------------------------------
Be++       EMF KCl    25°C 0.10M U        K1=6.31   B2=15.6   1968DMb (18126) 100
*************************************************************************
CH6O6P2               H4L    Medronic acid    CAS 1984-15-2  (2384)
Methanediphosphonic acid; CH2(PO3H2)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C        K1=13.7   B2=21.36  1999AVa (18275) 101
                                       K(BeL+H)=5.04
                                       K(BeHL+H)=2.6
                                       K(BeL2+H)=6.3
                                       K(BeHL2)=6.5
K(Be+HL)=8.3, K(Be+H2L)=4.0, K(Be+2H2L)=7.6
-------------------------------------------------------------------------
Be++       gl  KCl    25°C 0.10M U                   1967KLa (18276) 102
                                       K(Be+HL)=8.82
                                       K(2Be+L)=19.15
*************************************************************************
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
-------------------------------------------------------------------------
Be++       cal NaClO4 25°C 0.50M C   H                    1998ABe (18808) 103
DH(K1)=19.5 kJ mol-1, DS(K1)=132 J K-1 mol-1; DH(K2)=31, DS(K2)=138;
DH(Be3(OH)3+L)=10.9, DS=109; DH(Be3(OH)3+3L)=28, DS=254.
-------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C        K1=3.47   B2=5.24   1997BCa (18809) 104
                                       K(Be3(OH)3+L)=3.78
```

```
                                        K(Be3(OH)3+3L)=8.33
--------------------------------------------------------------------------------
Be++       oth NaClO4 40°C 0.10M C    M   B2=5.43        1984SIa (18810) 105
                                        B(BeL(nta))=7.42
Method: Paper electrophoresis, pH 10.0.
--------------------------------------------------------------------------------
Be++       kin none   25°C  0.0  U                      1978GKa (18811) 106
                                        K(Be+HL)=1.23
                                        K(BeHL=BeL+H)=-3.0
--------------------------------------------------------------------------------
Be++       sp  oth/un 20°C  var  C        K1=3.26   B2= 5.32  1978JBc (18812) 107
                                        K(3Be+3OH+3L)=39.94
Method: Raman and IR spectroscopy. Medium: 0.22-0.32 M oxalic acid.
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C        K1=3.52   B2=9.09   1977DBb (18813) 108
                                        B(1,3,3)=-3.85
                                        B(3,3,3)=-0.59
K(r,q,p)=pBe+rL+qH2O=Bep(OH)qLr+qH
--------------------------------------------------------------------------------
Be++       gl  KNO3   20°C 0.10M M        K1=4.08   B2= 5.38  1975VBb (18814) 109
--------------------------------------------------------------------------------
Be++       gl  NaNO3    ?  2.00M U        K1=3.2    B2=5.7    1970CFa (18815) 110
K(2Be+2L+2H2O=Be2(OH)2L2+2H)=-0.85
--------------------------------------------------------------------------------
Be++       dis NaClO4 25°C  1.0M U        K1=3.55   B2=5.40   1967SSd (18816) 111
--------------------------------------------------------------------------------
Be++       sp  oth/un   ?     ?  U        K1=4.87        1964PCa (18817) 112
By Job's method K1=4.93
--------------------------------------------------------------------------------
Be++       dis oth/un 20°C 0.10M U        K1=4.12        1963STc (18818) 113
Medium: KClO4
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.15M U        K1=4.08   B2=5.91   1962BKa (18819) 114
********************************************************************************
C2H3NO4                HL                      CAS 625-75-2  (2968)
Nitroacetic acid; O2N.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       kin oth/un 18°C 0.20M U        K1=0.26        1949PEa (19207) 115
Medium: Ba(NO3)2
********************************************************************************
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
--------------------------------------------------------------------------------
Be++       gl  oth/un 25°C .065M U TIH    K1=7.17   B2=12.58  1975GSa (20301) 116
At 35 C: K1=6.95, K2=4.89; 45  C: 6.82, 4.86. At 35 C, I=0.15: 7.06, 5.00.
At 35 C, I=0.25: K1=7.35, K2=5.82. DH(K1)=-102 kJ mol-1
```

**********

C2H4O3 HL Glycolic acid CAS 79-14-1 (33)
2-Hydroxyethanoic acid; HO.CH2.COOH

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 0.50M | M | | K1=1.05 B2= 2.85<br>B(Be3H-3L)=-7.56 | 1996PLa (20497) | 117 |
| Be++ | gl | NaClO4 | 30°C | 0.20M | U | | K1=7.51 B2=13.45 | 1975JBb (20498) | 118 |
| Be++ | ix | NaClO4 | 18°C | 0.10M | U | | K1=1.49 | 1965BKb (20499) | 119 |

**********

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 |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaNO3 | 25°C | 0.10M | C | | K1=6.80 | 1989GAb (21499) | 120 |
| Be++ | oth | NaClO4 | 35°C | 0.10M | C | | K1=5.38<br>Method: paper electrophoresis. | 1983PYa (21500) | 121 |
| Be++ | gl | NaClO4 | 30°C | 0.20M | U | | K1=6.58 B2=12.17 | 1975JBb (21501) | 122 |
| Be++ | gl | NaClO4 | 25°C | 0.50M | M | | B(BeHL)=10.69<br>B(Be3HL2)=18.84<br>B(Be3H-1L2)=12.89<br>B(Be3H-2L)=1.68<br>B(Be3H-3L)=-4.35 | 1974DBa (21502) | 123 |
| Be++ | sp | oth/un | ? | ? | U | | B2=4.95 | 1964PCa (21503) | 124 |
| Be++ | gl | oth/un | 22°C | 0.01M | U | | B2=13.3<br>Medium: BeSO4. | 1952PEa (21504) | 125 |

**********

C2H5O5P H3L CAS 4408-78-0 (4225)
Phosphonoethanoic acid; HOOC.CH2.PO3H2

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 0.50M | C | | K1=9.24 B2=14.98<br>K(BeL+H)=3.36<br>K(BeL2+H)=5.05<br>K(BeHL2+H)=ca. 3<br>K(Be+HL)=4.53<br>K(Be3(OH)3+L)=7.2, K(Be3(OH)3+3L)=20.86. | 1999AVa (21890) | 126 |

**********

C2H8O7P2 H4L HEDPA CAS 2809-21-4 (436)

1-Hydroxyethane-1,1-diphosphonic acid; CH3.C(OH)(PO3H2)2

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | KCl | 25°C | 0.10M | U | | K1=13.40<br>K(Be+H-1L))=16.55<br>K(Be+HL)=7.00<br>K(2Be+H-1L))=25.74<br>K(2Be+L)=18.01 | 1967KLa (23360) | 127 |

**********

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 |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 0.50M | C | | K1=5.36 B2= 9.21<br>K(Be3(OH)3+L)=5.26<br>K(Be3(OH)3+3L)=12.84 | 1999AVa (24397) | 128 |
| Be++ | cal | NaClO4 | 25°C | 0.50M | C | H | DH(K1)=10.53 kJ mol-1, DS(K1)=138.0 J K-1 mol-1; DH(K2)=5.19, DS(K2)=91.2; DH(Be3(OH)3+L)=8.4, DS=129; DH(Be3(OH)3+3L)=18.8, DS=309. | 1998ABe (24398) | 129 |
| Be++ | gl | NaClO4 | 25°C | 0.50M | C | | K1=5.36 B2=9.21<br>K(Be3(OH)3+L)=5.26<br>K(Be3(OH)3+3L)=12.84 | 1997BCa (24399) | 130 |
| Be++ | oth | oth/un | 20°C | ? | U | | K1=5.51 B2=8.88<br>K(Be3(OH)3+3L)=2.88<br>Method: Raman spectroscopy | 1988JBa (24400) | 131 |
| Be++ | gl | NaClO4 | 30°C | 0.10M | U | M | K1=5.15 B2= 8.45<br>B(BeLA)=8.74<br>B(BeLB)=8.02<br>B(BeLC)=7.41<br>B(BeLD)=7.59<br>B(BeLE)=8.70. H2A is succinic acid, H2B is itaconic acid, H2C is glutaric acid, H2D is adipic acid, H2E is maleic acid. | 1983SHf (24401) | 132 |
| Be++ | kin | none | 25°C | 0.0 | U | | K(Be+HL)=1.26<br>K(BeHL=BeL+H)=-1.66 | 1978GKa (24402) | 133 |
| Be++ | gl | NaClO4 | 25°C | 0.50M | C | | K1=5.34 B2=8.85<br>K(Be3(OH)3+3L)=0.81 | 1977DBa (24403) | 134 |
| Be++ | gl | KNO3 | 20°C | 0.10M | M | | K1=5.30 B2= 8.56 | 1975VBb (24404) | 135 |
| Be++ | gl | NaClO4 | 25°C | 1.00M | U | T | K(Be+HL)=2.65 | 1974TGa (24405) | 136 |

```
                                          K(Be+2HL)=5.32
At 35 C: K(Be+HL)=2.77, K(Be+2HL)=5.43
--------------------------------------------------------------------------------
Be++       gl  NaClO4 30°C 0.20M U        K1=5.15   B2=8.48   1967AMa (24406) 137
--------------------------------------------------------------------------------
Be++       gl  oth/un   ?     ?  U        K1=4.98        1964PCa (24407) 138
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.15M U        K1=5.73   B2=9.28   1962BKa (24408) 139
********************************************************************************
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
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 1.00M U T      K1=0.30   B2=4.2    1975TRa (24987) 140
Values also at 35 C, 45 C
********************************************************************************
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
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M M        K1=1.30        1996PLa (25409) 141
                                         B(Be3H-3L)=-7.03
--------------------------------------------------------------------------------
Be++       gl  NaClO4 30°C 0.20M U        K1=7.94   B2=14.41  1975JBb (25410) 142
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 1.00M U T      K1=0.40        1975TRa (25411) 143
Values also at 35 C, 45 C
--------------------------------------------------------------------------------
Be++       ix  NaClO4 18°C 0.10M U        K1=1.53        1965BKa (25412) 144
********************************************************************************
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
--------------------------------------------------------------------------------
Be++       gl  NaClO4 30°C 0.20M U        K1=6.75   B2=12.44  1975JBb (26142) 145
--------------------------------------------------------------------------------
Be++       gl  oth/un 21°C 0.01M U        B2=13.1        1952PEa (26143) 146
Medium: 0.005-0.01 M BeSO4
********************************************************************************
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
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M M                         1974DBa (26446) 147
                                         B(BeHL)=11.52
                                         B(Be3H-1L2)=13.80
```

B(Be3H-2L)=2.76
B(Be3H-3L)=-3.77

---

Be++ sp oth/un ? ? U B2=3.07 1964PCa (26447) 148

**********

C3H7NO2 HL Sarcosine CAS 107-97-1 (87)
N-Methyl-2-aminoethanoic acid; CH3.NH.CH2.COOH

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | oth/un | 20°C | 0.01M | U | | B2=13.9 | | 1952PEa (26599) | 149 |

Medium: BeSO4

**********

C3H7NO2 HL (6927)
N-Methylacetohydroxamic acid; CH3.CO.N(OH)CH3

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | sp | NaClO4 | 25°C | 0.10M | C | | K1=6.93 | B2=10.76 | 1999BBl (26621) | 150 |

**********

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

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaNO3 | 15°C | 0.10M | U | T | K1=12.50 | B2=20.00 | 1984IDa (26755) | 151 |

At 30 C, K1=12.35, K2=7.40.

**********

C3H7NO3 HL Serine CAS 56-45-1 (49)
2-Amino-3-hydroxypropanoic acid; H2N.CH(CH2.OH)COOH

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | oth/un | 20°C | .005M | U | | B2=12.1 | 1953PEa (27118) | 152 |

Medium: 0.005 M BeSO4

**********

C3H7O5P H3L CAS 5962-42-5 (522)
3-Phosphonopropanoic acid; HOOC.CH2.CH2.PO3H2

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | R4N.X | 25°C | 0.50M | C | | K1=6.76 | 1999VCa (27311) | 153 |
| | | | | | | | K(Be+HL)=3.12 | | |
| | | | | | | | K(BeHL+HL)=1.6 | | |
| | | | | | | | K(Be3(OH)3+L)=6.2 | | |
| | | | | | | | K(Be+OH+L)=13.60 | | |

Medium: 0.50 M Me4NCl/NaClO4.

**********

C3H8NO5P H3L Glyphosate CAS 1071-83-6 (1617)
N-(Phosphonomethyl)glycine; H2O3P.CH2.NH.CH2.COOH

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | KNO3 | 30°C | 0.10M | U | T HM | K1=13.00 | B2=23.16 | 1997RPc (27402) | 154 |
| | | | | | | | K(BeL+gly)=4.81 | | | |
| | | | | | | | K(BeL+ala)=5.17 | | | |
| | | | | | | | K(BeL+A)=10.99 | | | |
| | | | | | | | K(Be(phen)+L)=10.82 | | | |

Data for 20-50 C. DH(K1)=-43 kJ mol-1, DS(K1)=106 J K-1 mol-1, DH(K2)=-34, DS(K2)=82. H2A is catechol. K(Be(bpy)+L)=10.81, K(Be(ida)+L)=10.61.

**********

C3H10NO3P H2L (1986)

1,1-Dimethyl-1-aminomethylphosphonic acid; H2N.C(CH3)2.PO3H2

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | KCl | 25°C | 0.10M | U | | | | 1969DMd (28074) | 155 |
| | | | | | | | K(Be+HL)=4.81 | | | |
| | | | | | | | B(Be2L2)=12.73 | | | |

**********

C3H10NO3P H2L CAS 28660-33-5 (4243)

2-Aminopropane-1-phosphonic acid; CH3.CH(NH2).CH2.PO3H2

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | EMF | KCl | 25°C | 0.10M | U | | K1=4.81 | | 1968DMb (28080) | 156 |
| | | | | | | | B(Be2L2)=12.6 | | | |

**********

C4H4N2O2 HL Uracil CAS 66-22-8 (412)

2,4-Dihydroxypyrimidone, 2,4-Pyrimidinedione;

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 30°C | 0.10M | U | | K1=6.52 | B2=12.02 | 1978SSa (28857) | 157 |

**********

C4H4O4 H2L Maleic acid CAS 110-16-7 (111)

cis-Butenedioic acid; HOOC.CH:CH.COOH

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 30°C | 0.10M | U | M | K1=4.30 | B2= 6.41 | 1983SHf (29049) | 158 |
| | | | | | | | B(BeLA)=6.92 | | | |
| | | | | | | | B(BeLB)=7.01 | | | |

H2A is succinic acid, H2B is itaconic acid.

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | kin | none | 25°C | 0.0 | U | | | | 1978GKa (29050) | 159 |
| | | | | | | | K(Be+HL)=1.48 | | | |
| | | | | | | | K(BeL+H)=3.5 | | | |

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | sp | oth/un | ? | ? | U | | K1=3.24 | | 1964PCa (29051) | 160 |

```
------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.15M U        K1=4.33   B2=6.46   1962BKa (29052) 161
******************************************************************************
C4H4O4               H2L    Fumaric acid     CAS 110-17-8  (289)
trans-Butenedioic acid; HOOC.CH:CH.COOH
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Be++       sp  oth/un   ?     ?  U        K1=3.23        1964PCa (29179) 162
******************************************************************************
C4H4O5               H2L    Oxobutanedioic   CAS 328-42-7  (1733)
2-Oxosuccinic acid, Oxalacetic acid; HOOC.CH2.CO.COOH
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Be++       sp  NaClO4 25°C 0.20M U                       1972DTa (29262) 163
                                        K(Be+HL)=3.1
By kinetics: K(Be+HL)=3.3
******************************************************************************
C4H6O4               H2L    Succinic acid    CAS 110-15-6  (112)
1,4-Butanedioic acid; HOOC.CH2.CH2.COOH
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C   H    K1=3.04   B2= 4.04  2001MDa (29941) 164
                                        K(Be3(OH)3+L)=2.03
DH(K1)=21.1 kJ mol-1, DS(K1)=129 J K-1 mol-1; DH(K2)=15, DS(K2)=69;
DH(Be3(OH)3L)=42, DS(Be3(OH)3L)=181.
------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C   H    K1=3.04   B2= 4.04  1998ABe (29942) 165
                                        K(Be3(OH)3+L)=2.03
DH(K1)=21.1 kJ mol-1, DS(K1)=129 J K-1 mol-1, DH(K2)=15, DS(K2)=69,
DH(Be3(OH)3+L)=42, DS=181.
------------------------------------------------------------------------------
Be++       gl  NaClO4 30°C 0.10M U        K1=3.18   B2= 4.83  1983SHf (29943) 166
------------------------------------------------------------------------------
Be++       kin none   25°C  0.0  U                      1978GKa (29944) 167
                                        K(Be+HL)=1.48
                                        K(BeHL=BeL+H)=-2.69
------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C        K1=2.74   B2=4.36   1977DBa (29945) 168
                                        K(Be+2HL)=3.05
                                        K(Be3(OH)3+HL)=2.00
                                        K(Be3(OH)3+3L)=5.07
------------------------------------------------------------------------------
Be++       gl  KNO3   25°C 1.00M U        K1=3.13        1975VGa (29946) 169
                                        B(BeHL)=6.54
                                        B(BeH-1L)=-2.64
------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 1.00M U T                     1974TGa (29947) 170
```

```
                                        K(Be+HL)=2.48
                                        K(Be+2HL)=4.90
At 35 C: K(Be+HL)=2.56, K(Be+2HL)=5.23
--------------------------------------------------------------------------------
Be++       sp  oth/un   ?     ?  U        K1=3.08        1964PCa (29948) 171
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.15M U        K1=4.69   B2=6.43   1962BKa (29949) 172
********************************************************************************
C4H6O4                  L                     CAS 553-90-2  (2991)
Dimethyl oxalate; (COOCH3)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       sp  oth/un   ?     ?  U        K1=4.97        1960BHe (30088) 173
********************************************************************************
C4H6O4                H2L    Me-Malonic Acid  CAS 516-15-2  (816)
Methylpropanedioic acid; HOOC.CH(CH3).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C        K1=5.394  B2= 9.08  1999ACa (30116) 174
                                        K(Be3(OH)3+L)=5.47
                                        K(Be3(OH)3+3L)=12.64
--------------------------------------------------------------------------------
Be++       gl  NaClO4 30°C 0.10M U        K1=5.21   B2= 8.67  1983SHf (30117) 175
********************************************************************************
C4H6O4S               H3L    Thiomalic acid   CAS 70-49-5  (109)
2-Mercaptosuccinic acid, 2-Sulfanyl-1,4-butanedioic acid; HOOC.CH(SH).CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  NaClO4 30°C 0.10M U    M   K1=4.80   B2= 7.97  1983SHf (30320) 176
                                           B(BeLA)=8.22
                                           B(BeLB)=8.70
                                           B(BeLC)=8.47
                                           B(BeLD)=6.99
B(BeLE)=7.15, B(BeLF)=8.45. H2A=malonic acid, H2B=methylmalonic,
H2C=dimethylmalonic, H2D=succinic, H2E=itaconic, H2F=maleic acid.
--------------------------------------------------------------------------------
Be++       gl  NaClO4 30°C 0.10M U    M                  1983SHf (30321) 177
                                           B(BeLA)=6.69
                                           B(BeLB)=6.68
H2A is glutaric acid, H2B is adipic acid.
********************************************************************************
C4H6O5                H2L    Malic acid       CAS 617-48-1  (393)
2-Hydroxybutane-1,4-dioic acid, Hydroxy-succinic acid; HOOC.CH2.CH(OH).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C        K1=2.49        1980DTa (30593) 178
```

K(Be3(OH)3+L)=5.35
K(Be3(OH)3+2L)=8.39
K(Be3(OH)3+3L)=10.61
B(3,-2,1)=-3.47
B(3,-3,2)=-0.42, B(3,-3,3)=1.80.  B(p,q,r): pBe+qH+rL=BepHqLr

---

Be++ gl NaClO4 30°C 0.20M U K1=9.09 1975JBb (30594) 179

---

Be++ gl KNO3 25°C 1.00M U K1=2.70 1975VGa (30595) 180
B(BeHL)=5.74
B(Be2L2)=8.48
B(Be2H-2L)=1.35
B(Be2H-1L)=3.05
B(Be4H-4L2) = -1.74

---

Be++ sp oth/un ? ? U K1=3.04 1964PCa (30596) 181

**********

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

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 0.10M | U | TIH | K1=2.62 | 1979SDc (30854) | 182 |

**********

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

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 1.00M | M | M | K(Be+H2L+(ascorbate))=4.56 | 1988MOa (31013) | 183 |
| Be++ | gl | KNO3 | 25°C | 1.00M | U | | K1=1.74<br>B(Be4H-6L4)=-9.83<br>B(BeH-1L)=-2.66<br>B(Be2H-2L2)=-1.46<br>B(Be4H-6L2)=-15.27 | 1975VGa (31014) | 184 |

**********

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

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 0.50M | M | | K1=1.52 B2= 3.20<br>B(Be3H-3L)=-5.56<br>B(Be3H-4L)=-10.86<br>B(BeH-2L2)=-6.12 | 1996PLa (31207) | 185 |
| Be++ | gl | NaClO4 | 25°C | 0.50M | C | | K1=1.69 B2=2.93<br>K(Be3(OH)3+L)=3.32 | 1980DTa (31208) | 186 |

```
                                        B(1,-2,2)=-6.52
                                        B(3,-3,1)=-5.49
B(3,-4,1)=-10.49. B(p,q,r): pBe+qH+rL=BepHqLr
--------------------------------------------------------------------------------
Be++       EMF oth/un 18°C 0.10M U        K1=2.57        1965KBa (31209) 187
--------------------------------------------------------------------------------
Be++       dis NaClO4 20°C 0.10M U        K1=2.89        1963STc (31210) 188
********************************************************************************
C4H6O6               H2L    meso-Tartaric    CAS 147-73-9  (91)
meso-2,3-Dihydroxybutanedioic acid; HOOC.CH(OH).CH(OH).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  KNO3   25°C 1.00M U        K1=1.74        1975VGa (31426) 189
                                        B(Be4H-6L2)=-14.70
                                        B(BeH-1L)=-2.49
                                        B(Be2H-2L2)=0.31
                                        B(Be2H-3L)=-9.26
********************************************************************************
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
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C                         1989MMe (31820) 190
                                        B(-4,1,1)=-19.23
                                        B(-3,1,1)=0
                                        B(-9,3,3)=0
B(p,q,r): pH+qM+rH2L=HpMq(H2L)r
--------------------------------------------------------------------------------
Be++       gl  NaClO4 30°C 0.10M U    M   K1=6.56   B2=11.40  1983SHf (31821) 191
                                        B(BeLA)=10.24
                                        B(BeLB)=10.85
                                        B(BeLC)=8.27
                                        B(BeLD)=8.47
H2A is malonic acid, H2B is methylmalonic acid, H2C is succinic acid,
H2D is itaconic acid.
--------------------------------------------------------------------------------
Be++       gl  NaClO4 30°C 0.10M U    M                    1983SHf (31822) 192
                                        B(BeLA)=9.22
                                        B(BeLB)=10.29
                                        B(BeLC)=7.91
                                        B(BeLD)=8.23
H2A is thiomalic acid, H2B is maleic acid, H2C is glutaric acid,
H2D is adipic acid.
--------------------------------------------------------------------------------
Be++       gl  NaClO4 30°C 0.20M U        K1=6.54   B2=11.35  1975JBb (31823) 193
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.10M U        K1=12.26  B2=20.99  1972SSe (31824) 194
--------------------------------------------------------------------------------
```

```
Be++       sp  oth/un   ?     ?  U        K1=3.03        1964PCa (31825) 195
--------------------------------------------------------------------------------
Be++       gl  oth/un 15°C .005M U        B2=13.4        1953PEa (31826) 196
Medium: 0.005 M BeSO4
********************************************************************************
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
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M U                         1987MDa (32202) 197
                                       B(-2,1,1)=-5.98
                                       B(-1,1,1)=-1.90
                                       B(-9,3,3)=-30.40
                                       B(-3,1,1)=-11.60
B(p,q,r): pH + qBe + r(H2L)
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.10M U T      K1=7.70        1981DSa (32203) 198
At 35 C: K1=7.59; 45 C: 7.43
********************************************************************************
C4H8N2O3              HL    Asparagine       CAS 70-47-3  (17)
2-Aminobutanedioic acid 4-amide; H2N.CH(CH2.CO.NH2).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  KNO3   25°C 0.10M U T      K1=6.25   B2=11.20  1986SSe (32683) 199
Data for 25-45 C and 0-1.0 M KNO3. DH and DS values reported.
--------------------------------------------------------------------------------
Be++       gl  oth/un 15°C .005M U        B2=11.7        1953PEa (32684) 200
Medium: 0.005 M BeSO4
********************************************************************************
C4H8N2O3              HL    Gly-Gly          CAS 556-50-3  (54)
Glycyl-glycine; H2N.CH2.CO.NH.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  oth/un 21°C 0.01M U        B2=9.8         1952PEa (33018) 201
Medium: BeSO4
********************************************************************************
C4H8O3                HL                     CAS 594-61-6  (81)
2-Hydroxy-2-methylpropanoic acid; (CH3)2C(OH).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M M        K1=1.15   B2= 3.04  1996PLa (33447) 202
                                       B(Be3H-3L)=-7.22
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C        K1=1.16   B2=2.65   1979DTb (33448) 203
                                       K(Be3(OH)3+3L)=4.14
                                       B(BeH-1L)=-3.68
```

B(Be3H-3L3)=-4.68

**********

C4H8O3 HL CAS 300-85-6 (30)

3-Hydroxybutanoic acid; CH3.CH(OH).CH2.COOH

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 0.50M | C | | K1=1.44 B2=2.83<br>K(Be3(OH)3+3L)=2.68<br>B(Be3H-3L3)=-6.13 | 1979DTb (33621) | 204 |

**********

C4H9NO2 HL Aminoisobutyric CAS 144-90-1 (188)

2-Amino-2-methylpropanoic acid; H2N.C(CH3)2.COOH

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | oth/un | 19°C | 0.01M | U | | B2=12.4 | 1952PEa (33836) | 205 |

Medium: BeSO4

**********

C4H9NO2 HL 2-Aminobutyric CAS 2835-81-6 (571)

2-Aminobutanoic acid; CH3.CH2.CH(NH2).COOH

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 0.10M | U | | K1=6.80 B2=12.70 | 1976SSf (33909) | 206 |
| Be++ | gl | oth/un | 17°C | 0.01M | U | | B2=12.9 | 1952PEa (33910) | 207 |

Medium: 0.005-0.01 N BeSO4, 15-20 C

**********

C4H9NO2S HL Methylcysteine CAS 1187-84-4 (84)

2-Amino-3-methylmercaptopropanoic acid; H2N.CH(CH2.S.CH3)COOH

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | dis | NaClO4 | 35°C | 0.10M | U | M | K1=5.55 B2=10.50 | 1990TSb (34095) | 208 |

Method: electrophoresis. Ternary complexes with NTA

**********

C4H9NO3 HL Threonine CAS 72-19-5 (48)

2-Amino-3-hydroxybutanoic acid; H2N.CH(CH(OH).CH3)COOH

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | oth/un | 20°C | .005M | U | | B2=11.9 | 1953PEa (34291) | 209 |

Medium: 0.005 BeSO4

**********

C4H10OS2 H2L CAS 2150-02-9 (2896)

2,2'-Dimercaptoethyl ether; HS.CH2CH2.O.CH2CH2.SH

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

Be++ gl alc/w 25°C 40% U K1=11.96 1975SSe (34662) 210
At 35 C: K1=11.90
**********
C4H11O3P HL CAS 762-04-9 (1329)
Diethylphosphonic acid; (C2H5.O)2P(O)H
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl R4N.X 25°C 0.10M C 2001BCd (35244) 211
K(Be+CpCoL3)=7.67
K(2Be+2CpCoL3)=11.0
K(Be2(OH)+2CpCoL3)=14.2
Medium: 0.50 M (CH3)4NCl. CpCoL3 is cyclopentadienyltris(diethyldiphos-
phito-P)cobaltate. K(CpCoL3+H)=5.87, K(CpCoL3+Na)=2.6.
**********
C4H14N2O6P2 H2L EDDPO CAS 1733-49-9 (2435)
1,2-Diaminoethane-N,N'-bis(methylenephosphonic) acid; (H2O3P.CH2.NH.CH2)2
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ EMF KCl 25°C 0.10M U 1968DMb (35870) 212
K(Be+H2L)=8.76
K(2Be+H2L)=11.4
---
Be++ gl KCl 25°C 0.10M U K1=>7 1965DKb (35871) 213
**********
C5H4N2O4 H2L Orotic acid CAS 65-86-1 (624)
1,2,3,6-Tetrahydro-2,6-dioxo-4-pyrimidinecarboxylic acid;
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl NaClO4 25°C 0.50M U I 1983MDa (36110) 214
K(Be+H2L)=2.15
K(Be+2H2L)=3.83
K(Be+HL)=4.51
K(Be+2HL)=8.20
At I=0.1 M K(Be+HL)=4.65
**********
C5H4O2S HL 2-Thenoic acid CAS 527-72-0 (2312)
Thiophene-2-carboxylic acid; C4H3S.COOH
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl NaClO4 30°C 0.20M U T K1=2.15 B2=4.21 1976SKc (36255) 215
At 40 C:K1=2.14, K2=2.05; 50 C:2.12, 2.04
**********
C5H5N L Pyridine CAS 110-86-1 (31)
Pyridine, Azine;
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

```
------------------------------------------------------------------------------
Be++       gl  oth/un 45°C    ?  U T H    K1=2.30        1967RBd (36596) 216
At 35 C: K1=2.40. DH(K1)=-18.8 kJ mol-1, DS=-12 J K-1 mol-1
******************************************************************************
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
------------------------------------------------------------------------------
Be++       gl  diox/w 25°C  50%  U        K1=7.30   B2=13.15  1970GDa (36781) 217
Medium: 50% dioxan, 0.1 M NaClO4
******************************************************************************
C5H5N5                  L    Adenine          CAS 73-24-5  (237)
6-Aminopurine; H2N.C5H3N4
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Be++       dis NaClO4 25°C 0.10M C    M   K1=7.20   B2=13.40  1989MMf (36968) 218
                                         K(Be(nta)+L)=5.65
                                         B(Be(nta)L)=12.75
Method: paper electrophoresis. Medium pH=8.5.
******************************************************************************
C5H6N2                  L    2-Aminopyridine  CAS 504-29-0  (1478)
2-Aminoazine, 2-Pyridylamine; C5H4N.NH2
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Be++       gl  oth/un 45°C    ?  U T H    K1=4.24        1967RBd (37125) 219
K1=4.37(35 C); DH(K1)=-28.4 kJ mol-1, DS=-16(?) J K-1 mol-1
******************************************************************************
C5H6N2O2               HL    Thymine          CAS 65-71-4  (413)
2,4-Dihydroxy-5-methylpyrimidine; C4HN2(CH3)(OH)2
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Be++       gl  NaClO4 30°C 0.10M U        K1=7.01   B2=13.21  1978SSa (37275) 220
******************************************************************************
C5H6O4                H2L    Itaconic acid    CAS 97-65-4  (398)
Methylenesuccinic acid; HOOC.CH2.C(:CH2).COOH
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Be++       gl  NaClO4 30°C 0.10M U        K1=3.55   B2= 5.60  1983SHf (37411) 221
******************************************************************************
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
------------------------------------------------------------------------------
Be++       oth NaClO4 25°C 0.10M C  I   R K1=7.48   B2=14.08  1982SLc (37918) 222
```

IUPAC evaluation. I=1 M: B2=14.30; I=0 corr.: K1=7.9, B2=14.62

---

Be++ gl diox/w 20°C 17% C K1=10.71 B2=20.07 1976JWa (37919) 223

---

Be++ EMF R4N.X 19°C 1.00M U K1=7.27 B2=14.26 1968RSe (37920) 224

---

Be++ dis NaClO4 25°C 0.02M U I K1=7.96 B2=14.67 1963GAa (37921) 225
K(BeLOH+H)=6.4
K(BeL(OH)2+H)=9.8
I=1: K1=7.55, B2=14.35

---

Be++ gl oth/un 20°C 0.0 U T H K1=7.88 B2=14.63 1955IFb (37922) 226
DH(K1)=-8.4 kJ mol-1, DS=121; DH(K2)=-29, DS=33. 10 C: k1=7.93, K2=6.96;
40 C: K1=3.77, K2=6.44

---

Be++ gl oth/un 30°C 0.0 U K1=7.8 B2=14.5 1955IFc (37923) 227

---

Be++ gl diox/w 30°C 50% U K1=9.0 B2=16.7 1954BFb (37924) 228

---

Be++ gl oth/un 10°C 0.0 U K1=7.93 B2=14.89 1954IHa (37925) 229

---

Be++ gl diox/w 30°C 75% U K1=12.36 B2=23.30 1953UFb (37926) 230

**********

C5H8O4 H2L CAS 595-46-0 (1144)
Dimethylmalonic acid; HOOC.C(CH3)2.COOH

---

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

---

Be++ gl NaClO4 25°C 0.50M C K1=5.544 B2= 8.92 1999ACa (38209) 231
K(Be3(OH)3+L)=5.22
K(Be3(OH)3+3L)=12.57

---

Be++ gl NaClO4 30°C 0.10M U K1=4.88 B2= 8.28 1983SHf (38210) 232

**********

C5H8O4 H2L Glutaric acid CAS 110-94-1 (420)
Pentanedioic acid; HOOC.CH2.CH2.CH2.COOH

---

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

---

Be++ gl NaClO4 30°C 0.10M U K1=3.04 1983SHf (38310) 233
.

**********

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

---

Be++ gl oth/un 17°C 0.01M U B2=14.2 1952PEa (38602) 234
Medium: BeSO4

**********

C5H9NO3 HL Hydroxyproline CAS 51-35-4 (416)
4-Hydroxy-2-pyrrolidinecarboxylic acid; C4H7N(OH)(COOH)

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | oth/un | 17°C | 0.01M | U | | B2=12.7 | 1952PEa (38720) | 235 |

Medium: BeSO4

**********

C5H9NO4 H2L Glutamic acid CAS 56-86-0 (22)
2-Aminopentanedioic acid; H2N.CH(CH2.CH2.COOH)COOH

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 0.10M | U | | K1=12.04 B2=20.02 | 1972SSe (39069) | 236 |
| Be++ | sp | oth/un | ? | ? | U | | K1=3.11 | 1964PCa (39070) | 237 |
| Be++ | gl | oth/un | 15°C | .005M | U | | B2=13.0 | 1953PEa (39071) | 238 |

Medium: 0.005 BeSO4

**********

C5H9NO4 H2L MIDA CAS 4408-64-4 (190)
N-Methyliminodiethanoic acid; CH3.N(CH2.COOH)2

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 0.50M | U | | B(-2,1,1)=-5.28<br>B(-1,1,1)=-1.68<br>B(-3,1,1)=-11.31 | 1987MDa (39243) | 239 |

B(p,q,r): pH + qBe + r(H2L)

**********

C5H9N3 L Histamine CAS 51-45-6 (103)
4(5)-(2'-Aminoethyl)imidazole; C3H3N2.CH2.CH2.NH2

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | KCl | 25°C | 0.12M | U | T | K1=7.12 B2=12.47 | 1969CAc (39531) | 240 |

Temperature range 15-45C
K1(15 C)=7.90, K1(45 C)=5.84, K2(15 C)=5.60, K2(45 C)=4.82

**********

C5H10NO7P H4L PMIDA CAS 5994-61-6 (2433)
N-(Phosphonomethyl)iminodiethanoic acid; H2O3P.CH2.N(CH2.COOH)2

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | KNO3 | 30°C | 0.10M | U | T HM | K1=14.09 B2=24.78<br>K(BeL+gly)=4.86<br>K(BeL+ala)=5.33<br>K(BeL+A)=11.60<br>K(Be(phen)+L)=12.80 | 1997RPc (39670) | 241 |

Data for 20-50 C. DH(K1)=-40 kJ mol-1, DS(K1)=138 J K-1 mol-1, DH(K2)=-29, DS(K2)=107. H2A is catechol. K(Be(bpy)+L)=13.13, K(Be(ida)+L)=12.55.

---

Be++ gl KCl 25°C 0.10M U K1=9.5 1980VRa (39671) 242
K(Be+HL)=4.8

**********

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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | oth/un | 15°C | .005M | U | | B2=12.4 | | 1953PEa | (39812) 243 |

Medium: 0.005 BeSO4

**********

C5H11NO2 HL Valine CAS 72-18-4 (43)
2-Amino-3-methylbutanoic acid; H2N.CH(CH(CH3)2)COOH

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | oth | NaClO4 | 35°C | 0.10M | C | M | K1=6.70 | B2=12.02 | 1986SRb | (40688) 244 |

Exp. method: paper electrophoresis. Data also for NTA ternary complexes

---

Be++ gl oth/un 20°C 0.01M U B2=12.4 1952PEa (40689) 245

Medium: BeSO4

**********

C5H11NO2 HL Nor-Valine CAS 760-78-1 (689)
2-Aminopentanoic acid; CH3.CH2.CH2.CH(NH2).COOH

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | oth/un | 20°C | 0.00 | U | | B2=12.6 | | 1952PEa | (40836) 246 |

Medium: 0.0005 BeSO4

**********

C5H11NO2S HL Methionine CAS 63-68-3 (42)
2-Amino-4-(methylthio)butanoic acid; H2N.CH(CH2.CH2.S.CH3)COOH

---

Be++ gl NaClO4 25°C 0.50M C 1989MMe (41079) 247
B(-3,1,1)=-15.92
B(-2,1,1)=0
B(-6,3,3)=0

B(p,q,r)=pH+qM+rHL=HpMq(HL)r

---

Be++ gl oth/un 18°C .005M U B2=12.0 1953PEa (41080) 248

Medium: 0.005 BeSO4

**********

C5H11NO2S H2L D-Penicillamine CAS 52-67-5 (1323)
D-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
-------------------------------------------------------------------------
Be++       gl  KCl    25°C 0.10M M                          1987HLa (41182) 249
                                        B(Be2L)=14.15
                                        B(Be3L2)=26.63
*************************************************************************
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
-------------------------------------------------------------------------
Be++       gl  KNO3   32°C  0.0  U                        1992BKf (41253) 250
                                        K(Be+H2L=BeL+2H)=-7.97
                                        K(Be+2H2L=BeL2+4H)=-19.32
Medium: 0.005 M KNO3
*************************************************************************
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
-------------------------------------------------------------------------
Be++       gl  oth/un 20°C .005M U        B2=11.7        1953PEa (41572) 251
Medium: 0.005 BeSO4
*************************************************************************
C6H4N2O6              H2L                    CAS 7659-29-2  (2694)
1,2-Dihydroxy-3,5-dinitrobenzene; (HO)2.C6H2(NO2)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       gl  KCl    25°C 0.10M M        K1=8.49   B2=15.28  1987HAb (42265) 252
*************************************************************************
C6H5NO2                HL    Picolinic acid   CAS 98-98-6  (391)
2-Pyridine-carboxylic acid; C5H4N.COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       gl  NaCl   25°C 0.50M U                        1968BTa (42502) 253
                                        K(2Be+2L+H2O=Be2(OH)L2+H)=3.9
Medium: 0.5 NaCl,NaClO4. K(3Be+3L+3H2O=Be3(OH)3+3H)=-1.06
*************************************************************************
C6H5NO4               H2L    3-Nitrocatechol  CAS 6665-98-1  (2685)
1,2-Dihydroxy-3-nitrobenzene; O2N.C6H3(OH)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       gl  KCl    25°C 0.10M M        K1=11.29  B2=20.13  1986HAc (42859) 254
                                        B(BeHL)=15.2
                                        B(BeHL2)=25.0
*************************************************************************
C6H5NO4               H2L    4-Nitrocatechol  CAS 3316-09-4  (890)
```

1,2-Dihydroxy-4-nitrobenzene; O2N.C6H3(OH)2

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | KCl | 25°C | 0.10M | M | | K1=10.36 B2=18.27 | 1984HAd (42919) | 255 |

**********

C6H5O4Cl HL Chlorokojic aci (3086)
3-Chloro-5-hydroxy-2-hydroxymethyl-4-pyrone;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 75% | U | | K1=9.57 B2=18.20 | 1960KFc (43128) | 256 |

**********

C6H6N2O3 HL CAS 99-57-0 (469)
2-Amino-4-nitrophenol; H2N.C6H3(OH)(NO2)

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 50% | U | | K1=4.47 B2=7.70 | 1966VMa (43446) | 257 |

Medium: 50% dioxan, 0.1 M NaClO4

**********

C6H6O2 H2L Catechol CAS 120-80-9 (534)
1,2-Dihydroxybenzene, pyrocatechol; HO.C6H4.OH

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | KNO3 | 20°C | 0.10M | U | | K1=13.52 B2=23.35 | 1967BZa (43734) | 258 |
| | | | | | | | K(Be+HL)=5.0 | | |
| | | | | | | | K(BeL+HL)=2.8 | | |
| Be++ | gl | KNO3 | ? | 0.20M | U | | K1=13.70 B2=25.72 | 1964DMb (43735) | 259 |

**********

C6H6O3 H3L Pyrogallol CAS 87-66-1 (696)
1,2,3-Trihydroxybenzene; C6H3(OH)3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | KNO3 | 20°C | 0.10M | U | | | 1967BZa (43953) | 260 |
| | | | | | | | K(Be+HL)=13.5 | | |
| | | | | | | | K(Be+H2L)=4.6 | | |
| Be++ | gl | KNO3 | ? | 0.20M | U | | | 1967DMa (43954) | 261 |
| | | | | | | | K(Be+HL)=11.4 | | |
| | | | | | | | K(BeHL+HL)=10.0 | | |

**********

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

```
Be++       gl  NaClO4 25°C 0.50M C        K1=4.11   B2= 7.21  2002CGa (44032) 262
********************************************************************************
C6H6O3                 HL    Maltol           CAS 118-71-8  (2442)
3-Hydroxy-2-methyl-4H-pyran-4-one;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C        K1=5.73        2002CGa (44077) 263
                                          K(Be3(OH)3+3L)=13.8
********************************************************************************
C6H6O4                 HL    Kojic acid       CAS 501-30-4  (1800)
5-Hydroxy-2-(hydroxymethyl)-4H-pyran-4-one;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C        K1=5.01        2002CGa (44197) 264
                                          K(Be3(OH)3+3L)=11.4
--------------------------------------------------------------------------------
Be++       gl  diox/w 30°C 75v%  U        K1=10.7   B2=17.89  1960KFc (44198) 265
********************************************************************************
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
--------------------------------------------------------------------------------
Be++       nmr oth/un 20°C 0.03M U        K1=12.2   B2=21.50  1992EYa (44410) 266
--------------------------------------------------------------------------------
Be++       gl  KCl    30°C 0.10M U TIH    K1=12.51  B2=23.17  1980BDe (44411) 267
Data for I=0.20 and 0.30 M. Data at 40 C. DH and DS values.
At I=0, K1=13.24, K2=11.50.
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C    M   K1=11.78  B2=21.37  1977SLa (44412) 268
                                          B(BeHL)=16.16
                                          B(BeHL2)=26.33
--------------------------------------------------------------------------------
Be++       gl  KNO3   20°C 0.10M U T      K1=12.88  B2=22.25  1967BZa (44413) 269
                                          K(Be+HL)=4.2
                                          K(BeL+HL)=2.3
--------------------------------------------------------------------------------
Be++       gl  KNO3   20?°C 0.10M U        K1=13.5   B2=26.00  1965DMb (44414) 270
********************************************************************************
C6H7N                  L    Picoline         CAS 109-06-8  (320)
2-Methylpyridine; C5H4N.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  oth/un 45°C    ?  U T H    K1=3.42        1967RBd (44603) 271
K1=3.53(35 C); DH(K1)=-20.9 kJ mol-1, DS=0
********************************************************************************
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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | oth/un | 45°C | ? | U | T H | K1=2.80 | | 1967RBd (44692) | 272 |

K1=2.89(35 C); DH(K1)=-17.1 kJ mol-1, DS=0

**********

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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | oth/un | 45°C | ? | U | T H | K1=3.43 | | 1967RBd (44813) | 273 |

K1=3.54(35 C); DH(K1)=-20.9 kJ mol-1, DS=0

**********

C6H7NO2 HL (4362)
3-Cyanoacetylacetone; CH3.CO.CH(CN).CO.CH3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 25°C | 75% | U | I | K1=3.88 | B2=7.21 | 1968CSa (45034) | 274 |

Medium: 75% dioxan, 0.08 M KCl
I=0.04: K1=3.98, K2=3.41; I=0.15: K1=3.63, K2=3.18

**********

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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | nmr | oth/un | 20°C | 0.03M | U | | K1=8.4 | B2=15.60 | 1992EYa (45048) | 275 |

**********

C6H8O4 H2L CAS 5445-51-2 (69)
Cyclobutane-1,1-dicarboxylic acid; C4H6(COOH)2

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 0.50M | C | | K1=5.51 | B2= 8.89 | 1999ACa (45506) | 276 |
| | | | | | | | K(Be3(OH)3+3L)=10.68 | | | |

**********

C6H8O6 H3L Tricarballylic CAS 99-14-9 (1620)
1,2,3-Propanetricarboxylic acid; HOOC.CH2.CH(COOH).CH2.COOH

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | KNO3 | 25°C | 1.00M | U | | K1=3.75 | | 1974VGa (45563) | 277 |
| | | | | | | | B(BeHL)=8.00 | | | |

**********

C6H8O6 H2L Ascorbic acid CAS 50-81-7 (285)
Ascorbic acid (Vitamin C);

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 1.00M M    M                  1988MOa (45628) 278
                                        K(Be+H2L+(ascorbate))=4.56
-------------------------------------------------------------------------
Be++       gl  NaClO4 20°C 1.00M M                       1983MOa (45629) 279
                                        K(Be+HL)=1.04
                                        K(Be+2HL)=3.11
*************************************************************************
C6H8O6S               H3L                    CAS 99-68-3  (3692)
(Carboxymethylthio)butanedioic acid; HOOC.CH(S.CH2.COOH).CH2.COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       gl  KNO3   25°C 0.05M M        K1=3.90        1975DPb (45687) 280
*************************************************************************
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
-------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M M        K1=4.40   B2= 8.12  1996PLa (46043) 281
                                        B(Be2L2)=12.77
                                        B(BeHL)=7.36
                                        B(Be2H-2L2)=2.98
                                        B(Be2H-3L2)=-4.12
-------------------------------------------------------------------------
Be++       gl  KNO3   25°C 1.00M U        K1=4.31        1974VGa (46044) 282
                                        B(BeHL)=7.56
                                        B(Be2L2(OH))=8.23
Further data available for various combinations of M, L amd OH.
-------------------------------------------------------------------------
Be++       EMF oth/un 18°C 0.10M U                       1965KBa (46045) 283
                                        K(Be+HL)=2.56(?)
                                        K(Be+2HL)=3.95(?)
                                        K(Be+3HL)=6.97(?)
-------------------------------------------------------------------------
Be++       gl  NaClO4 32°C 0.25M U                       1961PPa (46046) 284
                                        K(Be+H3L=BeHL+2H)=-3.3
                                        K(BeL+H)=3.6
                                        K(BeH-1L+H)=5.3
-------------------------------------------------------------------------
Be++       ix  oth/un 25°C 0.15M U        K1=4.52        1955FTa (46047) 285
                                        K(Be+HL)=2.22
                                        K(Be+H2L)=1.40
*************************************************************************
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
```

```
--------------------------------------------------------------------------------
Be++       dis NaClO4 25°C 0.10M C        K1=7.10        1989MMf (46710) 286
Method: paper electrophoresis. Medium pH=8.5.
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C O.50  C        K1=6.84        1987MDb (46711) 287
--------------------------------------------------------------------------------
Be++       oth NaClO4 35°C 0.10M C    M   K1=7.22        1986SRb (46712) 288
Exp. method: paper electrophoresis.   Data also for NTA ternary complexes
--------------------------------------------------------------------------------
Be++       dis NaClO4 35°C 0.10M U    M   K1=7.22        1985SRa (46713) 289
                                          K=(Be(NTA)+Leu)=5.56
Method - paper electrophoresis
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.10M U T      K1=8.44        1981DSa (46714) 290
At 35 C: K1=8.16; 45 C: 7.94
--------------------------------------------------------------------------------
Be++       gl  KNO3   25°C 0.10M U T      K1=7.86        1977SVa (46715) 291
--------------------------------------------------------------------------------
Be++       gl  KNO3   20°C 0.10M M        K1=7.64        1975VBb (46716) 292
--------------------------------------------------------------------------------
Be++       dis NaClO4 20°C 0.10M U      T K1=7.11        1963STc (46717) 293
********************************************************************************
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
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C                         1976DBb (47532) 294
                                        B(2,1,0,1)=16.82
                                        B(1,1,0,1)=12.26
                                        B(2,1,3,3)=8.54
                                        B(1,1,3,3)=2.97
B(2,2,3,3)=13.48; B(3,3,3,3)=24.78. B(s,r,q,p): pBe+rL+(s-q)H=Be^p(OH)^qA^r
--------------------------------------------------------------------------------
Be++       gl  KCl    25°C 0.12M U T      K1=6.28   B2=10.98  1970CAa (47533) 295
K1(35 C)=5.52, K1(45 C)=4.78, K2(35 C)=4.50, K2(45 C)=4.32
********************************************************************************
C6H10O2                HL                    CAS 815-57-6  (2261)
3-Methyl-pent-2,4-dione; CH3.CO.CH(CH3).CO.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  diox/w 25°C  50%  U        K1=8.56   B2=16.94  1971MKc (47946) 296
Medium: 50% dioxan, 0.3 M NaClO4
--------------------------------------------------------------------------------
Be++       gl  diox/w 30°C  75%  U        K1=10.36  B2=20.51  1962MMb (47947) 297
Medium: 75% v/v dioxan, I-->0
********************************************************************************
C6H10O4               H2L    Adipic acid      CAS 124-04-9  (401)
1,6-Hexanedioic acid; HOOC.(CH2)4.COOH
```

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  NaClO4 30°C 0.10M U        K1=3.24        1983SHf (48066) 298
.
--------------------------------------------------------------------------------
Be++       sp  oth/un   ?     ?  U        K1=3.24        1964PCa (48067) 299
********************************************************************************
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
--------------------------------------------------------------------------------
Be++       gl  KNO3   25°C 0.05M M        K1=3.50        1975DPb (48180) 300
********************************************************************************
C6H11NO2               HL                      CAS 2044-64-6  (4374)
N,N-Dimethylacetoacetamide; CH3.CO.CH2.CO.N(CH3)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  diox/w 20°C  50%  U        K1=11.13  B2=19.60  1969KSd (48541) 301
Medium: 50% dioxan, 0.025 M NaClO4
********************************************************************************
C6H11NO4              H2L                     CAS 5336-17-4  (345)
N-Ethyliminodiethanoic acid; C2H5.N(CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M U                         1987MDa (48600) 302
                                          B(-3,1,1)=-11.40
B(p,q,r): pH + qBe + r(H2L)
********************************************************************************
C6H13NO2               HL    Isoleucine       CAS 73-32-5  (424)
2-Amino-3-methylpentanoic acid; CH3.CH2.CH(CH3).CH(NH2).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  oth/un 20°C 0.01M U        B2=12.6        1952PEa (49898) 303
Medium: BeSO4
********************************************************************************
C6H13NO2               HL    Leucine          CAS 61-90-5  (47)
2-Amino-4-methylpentanoic acid; H2N.CH(CH2.CH(CH3)2)COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       dis NaClO4 35°C 0.10M U    M   K1=7.00   B2=13.30  1985SRa (50059) 304
                                          K=(Be(NTA)+Leu)=5.56
Method - paper electrophoresis
--------------------------------------------------------------------------------
Be++       gl  oth/un 20°C 0.01M U        B2=13.2        1952PEa (50060) 305
```

Medium: BeSO4

**********

C6H13NO2 HL Norleucine CAS 616-06-8 (602)

2-Aminohexanoic acid (2-Aminocaproic acid) CH3.(CH2)3.CH(NH2).COOH

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | oth/un | 19°C | 0.00 | U | | B2=12.8 | 1952PEa (50170) | 306 |

Medium: 0.0005-0.005 M BeSO4

**********

C6H13N3O3 HL Citrulline (579)

2-Amino-5-ureidovaleric acid; H2N.CO.NH.CH2.CH2.CH2.CH(NH2).COOH

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | oth/un | 20°C | .005M | U | | B2=13.0 | 1953PEa (50572) | 307 |

Medium: 0.005 BeSO4

**********

C6H14N2O2 HL Lysine CAS 56-87-1 (41)

2,6-Diaminohexanoic acid; H2N.(CH2)4.CH(NH2)COOH

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | oth/un | 20°C | .005M | U | | B2=11.4 | 1953PEa (50816) | 308 |

Medium: 0.005 BeSO4

**********

C6H14N4O2 HL Arginine CAS 74-79-3 (40)

2-Amino-5-guanidopentanoic acid; H2N.CH((CH2)3.NH.C(:NH)(NH2)COOH

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | oth/un | 19°C | 0.00 | U | | B2=12.4 | 1953PEa (51003) | 309 |

Medium: 0.005 BeSO4

**********

C6H16O6P2 H4L CAS 4721-22-6 (3708)

Hexane-1,6-diphosphonic acid; H2O3P(CH2)6PO3H2

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | EMF | KCl | 25°C | 0.10M | U | | K(Be+HL)=8.31<br>B(Be2L)=15.55 | 1968DMb (51792) | 310 |
| Be++ | gl | KCl | 25°C | 0.10M | U | | K(Be+HL)=8.31<br>B(Be2L)=15.55 | 1967KLa (51793) | 311 |

**********

C7H4N2O7 H2L CAS 609-99-4 (400)

3,5-Dinitrosalicylic acid; (O2N)2.C6H2(OH).COOH

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | alc/w | 25°C | 20% | U | I | K1=7.55 | | 1996KOb (52463) | 312 |
| | | | | | | | *K(BeL)=-6.43 | | | |

Medium: 20% v/v EtOH/H2O, 0.10 M NaNO3. Data for 0.05 and 0.15 M NaNO3 in 20% EtOH/H2O. At I=0, K1=7.82, *K(BeL)=-6.68.

| Be++ | gl | alc/w | 25°C | 20% | U | I M | | | 1996KOb (52464) | 313 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | K(BeL+A)=7.62 | | | |

Medium: 20% v/v EtOH/H2O, 0.10 M NaNO3. Data for 0.05 and 0.15 M NaNO3 in 20% EtOH/H2O. At I=0, K(BeL+A)=7.94. HA is 2-hydroxyacetophenone.

| Be++ | gl | alc/w | 25°C | 20% | U | I M | | | 1996KOb (52465) | 314 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | K(BeL+B)=7.51 | | | |

Medium: 20% v/v EtOH/H2O, 0.10 M NaNO3. Data for 0.05 and 0.15 M NaNO3 in 20% EtOH/H2O. At I=0, K(BeL+B)=7.81. HB is 2-hydroxy-5-chloroacetophenone.

| Be++ | gl | alc/w | 25°C | 20% | U | I M | | | 1996KOb (52466) | 315 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | K(BeL+C)=7.25 | | | |

Medium: 20% v/v EtOH/H2O, 0.10 M NaNO3. Data for 0.05 and 0.15 M NaNO3 in 20% EtOH/H2O. At I=0, K(BeL+C)=7.59. H2C is 2,5-dihydroxyacetophenone.

| Be++ | nmr | oth/un | 20°C | 0.03M | U | | K1=7.8 | B2=13.30 | 1992EYa (52467) | 316 |
|---|---|---|---|---|---|---|---|---|---|---|

| Be++ | gl | NaClO4 | 25°C | 0.10M | U | | K1=8.50 | B2=15.40 | 1979LTc (52468) | 317 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | K(Be+H2L=BeL+2H)=0.14 | | | |

| Be++ | gl | KNO3 | 35°C | 0.10M | U | | K1=7.13 | B2=12.42 | 1969DDc (52469) | 318 |
|---|---|---|---|---|---|---|---|---|---|---|

**********

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

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | nmr | oth/un | 20°C | 0.03M | U | | K1=10.1 | B2=18.10 | 1992EYa (53041) | 319 |

| Be++ | gl | NaClO4 | 25°C | 0.10M | U | | K1=9.64 | B2=17.17 | 1979LTc (53042) | 320 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | K(Be+H2L=BeL+2H)=-2.24 | | | |

| Be++ | gl | NaClO4 | 35°C | 0.10M | U | | K1=9.71 | B2=17.57 | 1976ABe (53043) | 321 |
|---|---|---|---|---|---|---|---|---|---|---|

**********

C7H5O2Br HL CAS 4584-68-3 (2691)
3-Bromotropolone;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 50% | U | | K1=8.1 | B2=15.4 | 1954BFd (53113) | 322 |

**********

C7H5O3Br HL CAS 85-55-4 (1194)
5-Bromosalicylic acid; Br.C6H3(OH).COOH

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  NaClO4 35°C 0.10M U      T K1=11.84  B2=21.12  1976ABe (53308) 323
********************************************************************************
C7H5O3Cl              H2L                    CAS 321-14-2  (1113)
5-Chlorosalicylic acid; Cl.C6H3(OH).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  NaClO4 30°C 0.10M U T      K1=11.05  B2=18.40  1983MSd (53336) 324
Data for 35 and 40 C.
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.10M U        K1=11.26  B2=20.04  1979LTc (53337) 325
                                        K(Be+H2L=B2L+2H)=-3.10
--------------------------------------------------------------------------------
Be++       gl  NaClO4 35°C 0.10M U      T K1=11.97  B2=21.27  1976ABe (53338) 326
********************************************************************************
C7H6O2                 HL    Tropolone        CAS 533-75-5  (3129)
2-Hydroxycyclohepta-2,4,6-trien-1-one;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       sp  NaClO4 25°C 0.10M U        K1=7.40        1970HOa (53666) 327
--------------------------------------------------------------------------------
Be++       gl  diox/w 30°C  50%  U        K1=8.4    B2=15.4   1954BFb (53667) 328
********************************************************************************
C7H6O3                 H2L    Salicylic acid   CAS 69-72-7  (14)
2-Hydroxybenzoic acid, Salicylic acid; HO.C6H4.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  alc/w  25°C  20%  U  I     K1=12.41       1996KOb (54157) 329
                                        *K(BeL)=-7.78
Medium: 20% v/v EtOH/H2O, 0.10 M NaNO3. Data for 0.05 and 0.15 M NaNO3 in
20% EtOH/H2O. At I=0, K1=12.68, *K(BeL)=-8.03.
--------------------------------------------------------------------------------
Be++       gl  alc/w  25°C  20%  U  I M                1996KOb (54158) 330
                                        K(BeL+A)=7.03
Medium: 20% v/v EtOH/H2O, 0.10 M NaNO3. Data for 0.05 and 0.15 M NaNO3 in
20% EtOH/H2O. At I=0, K(BeL+A)=7.38. HA is 2-hydroxyacetophenone.
--------------------------------------------------------------------------------
Be++       gl  alc/w  25°C  20%  U  I M                1996KOb (54159) 331
                                        K(BeL+B)=6.91
Medium: 20% v/v EtOH/H2O, 0.10 M NaNO3. Data for 0.05 and 0.15 M NaNO3 in
20% EtOH/H2O. At I=0, K(BeL+B)=7.26. HB is 5-chloro-2-hydroxyacetophenone.
--------------------------------------------------------------------------------
Be++       gl  alc/w  25°C  20%  U  I M                1996KOb (54160) 332
                                        K(BeL+C)=6.48
Medium: 20% v/v EtOH/H2O, 0.10 M NaNO3. Data for 0.05 and 0.15 M NaNO3 in
```

20% EtOH/H2O. At I=0, K(BeL+C)=6.74. H2C is 2,5-dihydroxyacetophenone.

---

Be++ gl NaClO4 25°C 1.0M C M 1987MMa (54161) 333
K(Be+HL)=1.56
K(Be+2HL)=3.78
K(Be+2HL=BeHL2+H)=0.84
K(Be+HL=BeL+H)=-0.84
Also K(Be+2HL=BeL2+2H) = 2.88

---

Be++ gl NaClO4 35°C 0.10M U K1=12.69 B2=22.34 1984ABe (54162) 334

---

Be++ gl NaClO4 25°C 0.1M U T K1=11.45 B2=20.29 1979LTc (54163) 335

---

Be++ gl KNO3 35°C 0.10M U K1=13.12 B2=22.02 1977JKa (54164) 336

---

Be++ gl NaClO4 35°C 0.10M U K1=12.69 B2=22.34 1976ABe (54165) 337

---

Be++ gl KNO3 20°C 0.10M U K1=12.37 B2=22.02 1967BZa (54166) 338

---

Be++ EMF oth/un 18°C 0.10M U 1965KBa (54167) 339
K(Be+HL)=2.51
K(Be+2HL)=4.4
K(Be+3HL)=6.6

---

Be++ sp NaClO4 45°C 0.20M U T H 1964DAa (54168) 340
K(Be+HL=BeL+H)=-0.48
K=-0.55(20 C),-0.52(30 C). DH=5.0 kJ mol-1,DS=25 J K-1 mol-1. Recalculated

---

Be++ gl NaClO4 25°C 0.15M U K1=12.61 B2=22.60 1962BKa (54169) 341

---

Be++ gl alc/w 22°C 50% U K1=12.45 B2=20.95 1961AMb (54170) 342

---

Be++ sp NaClO4 30°C 0.20M U I 1961DAa (54171) 343
K(Be+HL=BeL+H)=-0.53
K=-0.27(I=0),-0.38(I=0.02),-0.46(I=0.05),-0.51(I=0.10). Recalculated values

---

Be++ oth NaCl 25°C 0.16M U 1954SLc (54172) 344
K(Be+HL)=4.30

**********

C7H6O4 H3L Resorcylic acid CAS 89-86-1 (876)
2,4-Dihydroxybenzoic acid, b-Resorcylic acid; C6H3(OH)2.COOH

---

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

---

Be++ gl NaClO4 25°C 0.50M C T 1979LKa (54515) 345
B(1,1,1)=20.238
B(1,2,2)=37.933
B(1,1,2)=29.018
B(1,0,2)=19.803
B(q,p,r): qBe+pH+rL=(Be)qHpLr

---
Be++ gl KNO3 30°C 0.10M U T K1=18.15 B2=33.10 1978SDa (54516) 346
B1 and K2 of the Be(II) complexes are obtained from the -log[L] values at n=0.5 and 1.5.
---
Be++ gl diox/w 30°C 50% U 1971VMa (54517) 347
K(Be+HL)=9.40
Medium: 50% dioxan, 0.1 M NaClO4
**********
C7H6O4 H3L CAS 409-79-9 (1115)
2,5-Dihydroxybenzoic acid; C6H3(OH)2.COOH
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl NaClO4 25°C 0.50M U B2=20.972 1978LKe (54583) 348
B(BeHL)=21.839
B(BeH2L2)=41.347
B(BeHL2)=31.409
---
Be++ gl diox/w 30°C 50% U 1971VMa (54584) 349
K(Be+HL)=8.26
Medium: 50% dioxan, 0.1 M NaClO4
**********
C7H6O4 H3L g-Resorcylic ac CAS 303-07-1 (1624)
2,6-Dihydroxybenzoic acid; C6H3(OH)2.COOH
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl NaClO4 25°C 0.50M C T 1979LKa (54604) 350
B(1,1,1)=25.203
B(1,2,2)=48.528
B(2,0,1)=25.089
B(1,1,2)=36.765
B(q,p,r): qBe+pH+rL=(Be)qHpLr
**********
C7H6O5 H4L CAS 610-02-6 (3725)
2,3,4-Trihydroxybenzoic acid; (HO)3.C6H2.COOH
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ EMF oth/un 18°C 0.10M U 1965KBa (54720) 351
K(Be+H3L)=2.51(?)
K(Be+2H3L)=4.07(?)
K(Be+3H3L)=7.15(?)
**********
C7H6O5S H2L CAS 29848-93-9 (3151)
Salicylaldehyde-5-sulfonic acid; (5-Sulfosalicylaldehyde)
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---

```
Be++       gl  NaClO4 25°C 0.50M U        K1=3.40        1972BTa (54796) 352
                                         K(Be2(OH)+2L)=7.98
                                         K(Be3(OH)3+L)=3.26
                                         K(Be3(OH)3+2L)=6.56
                                         K(Be3(OH)3+3L)=8.15
**************************************************************************
C7H6O6S               H3L                      CAS 5965-83-3  (399)
5-Sulfosalicylic acid, 2-Hydroxy-5-sulfobenzoic; HO3S.C6H3(OH).COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Be++       gl  alc/w  25°C  20%  U  I     K1=10.44       1996KOb (54941) 353
                                         *K(BeL)=-7.22
Medium: 20% v/v EtOH/H2O, 0.10 M NaNO3. Data for 0.05 and 0.15 M NaNO3 in
20% EtOH/H2O. At I=0, K1=11.69, *K(BeL)=-7.46.
--------------------------------------------------------------------------
Be++       gl  alc/w  25°C  20%  U  I M                  1996KOb (54942) 354
                                         K(BeL+A)=7.19
Medium: 20% v/v EtOH/H2O, 0.10 M NaNO3. Data for 0.05 and 0.15 M NaNO3 in
20% EtOH/H2O. At I=0, K(BeL+A)=4.47. HA is 2-hydroxyacetophenone.
--------------------------------------------------------------------------
Be++       gl  alc/w  25°C  20%  U  I M                  1996KOb (54943) 355
                                         K(BeL+B)=7.05
Medium: 20% v/v EtOH/H2O, 0.10 M NaNO3. Data for 0.05 and 0.15 M NaNO3 in
20% EtOH/H2O. At I=0, K(BeL+B)=7.32. HB is 5-chloro-2-hydroxyacetophenone.
--------------------------------------------------------------------------
Be++       gl  alc/w  25°C  20%  U  I M                  1996KOb (54944) 356
                                         K(BeL+C)=6.61
Medium: 20% v/v EtOH/H2O, 0.10 M NaNO3. Data for 0.05 and 0.15 M NaNO3 in
20% EtOH/H2O. At I=0, K(BeL+C)=6.95. H2C is 2,5-dihydroxyacetophenone.
--------------------------------------------------------------------------
Be++       nmr oth/un 20°C 0.03M U        K1=11.2   B2=19.70  1992EYa (54945) 357
--------------------------------------------------------------------------
Be++       gl  NaClO4 30°C 0.10M U T      K1=9.70   B2=15.60  1983MSd (54946) 358
Data for 35 and 40 C.
--------------------------------------------------------------------------
Be++       gl  NaClO4 35°C 0.10M U        K1=11.61  B2=20.56  1976ABe (54947) 359
--------------------------------------------------------------------------
Be++       sp  NaClO4 25°C 0.10M U        K1=11.56       1974CSa (54948) 360
--------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.10M C    M   K1=11.74  B2=20.66  1974SRc (54949) 361
--------------------------------------------------------------------------
Be++       gl  NaClO4 30°C 0.20M U        K1=11.30  B2=20.37  1967AMa (54950) 362
--------------------------------------------------------------------------
Be++       gl  KNO3   20°C 0.10M U        K1=11.54  B2=20.43  1967BZa (54951) 363
--------------------------------------------------------------------------
Be++       sp  NaClO4 30°C 0.20M U  IH                  1964DAa (54952) 364
                                         K(Be+HL=BeL+H)=-0.39
K=-0.14(I=0.02),-0.27(I=0.05),-0.33(I=0.10). Recalculated values
In 0.2 M NaClO4: K=-0.45(20 C),-0.42(30 C),-0.37(45 C); DH=6.0 kJ mol-1
```

```
--------------------------------------------------------------------------------
Be++       gl  alc/w  22°C  50%  U        K1=11.52  B2=20.42  1961AMb (54953) 365
Medium: 50% EtOH
--------------------------------------------------------------------------------
Be++       sp  NaClO4 25°C 0.10M U        K1=11.72  B2=20.60  1960BSb (54954) 366
By glass electrode K1=11.71, K2=9.10
--------------------------------------------------------------------------------
Be++       oth oth/un 25°C 0.16M U                      1960BSb (54955) 367
                                       K(Be+HL)=4.85
--------------------------------------------------------------------------------
Be++       sp  NaClO4 25°C 0.10M U        K1=11.46  B2=20.08  1959BSa (54956) 368
By glass electrode: K1=11.50, K2=8.84
********************************************************************************
C7H6O9S2              H3L                     CAS 56507-30-3  (2659)
3,5-Disulfosalicylic acid; (HO3S)2.C6H2(OH).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C    M T K1=10.50  B2=18.69  1974SRd (55092) 369
********************************************************************************
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
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C        K1=1.95        1975DBc (55210) 370
                                       B(Be2H-1L2)=1.50
                                       K(Be3H-3L)=-7.34
                                       K(Be3H-3L2)=-5.62
********************************************************************************
C7H7NO2               H2L    Salicylaldoxime  CAS 94-67-7  (1486)
2-Hydroxybenzaldehyde oxime; HO.C6H4.CH:N.OH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  alc/w  20°C  50%  U                        1959HOa (55307) 371
                                       K(Be+HL) < 7
********************************************************************************
C7H7NO3               H2L                     CAS 89-57-6  (2675)
2-Hydroxy-5-aminobenzoic acid, 5-Aminosalicylic acid; H2N.C6H3(OH).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  NaClO4 30°C 0.10M U T      K1=14.40  B2=21.30  1983MSd (55547) 372
Data for 35 and 40 C.
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C      T K1=10.77  B2=17.53  1979LAa (55548) 373
                                        B(BeHL)=16.12
                                        B(Be2HL)=19.49
                                        B(Be2L)=15.57
```

B(M3L2)=28.2

**********

C7H8N2O2 HL Salicylic hydra CAS 936-02-7 (2646)
2-Hydroxybenzoic acid hydrazide; HO.C6H4.CO.NH.NH2

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 25°C | 25% | U | | K1=6.71 | B2=11.58 | 1975GSb (55873) | 374 |

**********

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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 0.50M | C | | K1=8.47 | B2=15.63 | 2002CGa (56427) | 375 |
| | | | | | | | K(Be3(OH)3+L)=8.24 | | | |
| | | | | | | | K(Be3(OH)3+2L)=14.9 | | | |
| | | | | | | | K(Be3(OH)3+3L)=21.4 | | | |
| | | | | | | | K(Be(OH)2+2L)=6.38 | | | |
| Be++ | nmr | oth/un | 20°C | 0.03M | U | | K1=8.7 | B2=16.10 | 1992EYa (56428) | 376 |

**********

C7H11NO6 H3L CAS 40199-58-4 (3165)
N-(2'-Carboxyethyl)iminodiethanoic acid; HOOC.CH2.CH2.N(CH2.COOH)2

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | O.50 | C | | K1=8.10 | | 1987MDb (56879) | 377 |
| | | | | | | | K(Be+HL)=1.96 | | | |
| | | | | | | | K(Be+H2L)=1.37 | | | |

**********

C7H11NO6 H3L MNTA (1026)
Nitrilo(2-propanoic)-diethanoic acid; HOOC.CH(CH3).N(CH2.COOH)2

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | O.50 | C | | K1=7.39 | | 1987MDb (56906) | 378 |
| | | | | | | | K(Be+HL)=1.79 | | | |

**********

C7H11NO6P2 H4L CAS 4712-06-5 (4470)
Amino(phenyl)methylenediphosphonic acid;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | KCl | 25°C | 0.10M | U | | K1=16.20 | | 1969DMd (56940) | 379 |
| | | | | | | | K(Be+HL)=10.43 | | | |
| | | | | | | | B(Be2L)=23.41 | | | |
| | | | | | | | K(2Be+HL)=17.12 | | | |

**********

C7H11N3O2 L CAS 7389-87-9 (3162)

Histidine methyl ester

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | KCl | 25°C | 0.12M | U | T | K1=4.80 B2=8.28 | 1970CAa (57002) | 380 |

K1(35 C)=4.50, K1(45 C)=4.15, K2(35 C)=3.22, K2(45 C)=3.04

**********

C7H12O2 HL CAS 98-89-5 (2793)

Cyclohexanecarboxylic acid, Hexahydrobenzoic acid; C6H11.COOH

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | sp | oth/un | ? | ? | U | | K1=3.32 | 1964PCa (57228) | 381 |

**********

C7H12O4 H2L CAS 510-20-3 (482)

Diethylpropanedioic acid (Diethylmalonic acid); HOOC.C(C2H5)2.COOH

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | sp | oth/un | ? | ? | U | | K1=4.99 | 1964PCa (57358) | 382 |

**********

C7H13NO3 HL (7175)

3,3'-Dimethylglutaramide; HOOCCH2C(CH3)2CH2CONH2

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | KNO3 | 25°C | 0.10M | U | | B2=7.86 | 1995MWb (57472) | 383 |

**********

C7H13NO4 H2L CAS 16578-07-5 (341)

N-Propyliminodiethanoic acid; CH3.CH2.CH2.N(CH2.COOH)2

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 0.50M | U | | B(-3,1,1)=-11.54<br>B(-5,2,2)=-14.5<br>B(-2,1,1)=0 | 1987MDa (57528) | 384 |

B(p,q,r): pH + qBe + r(H2L)

**********

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 |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 20°C | 17% | C | | K1=9.14 B2=17.44 | 1976JWa (58603) | 385 |
| Be++ | dis | R4N.X | 20°C | 1.0M | U | | B2=11.50 | 1971SGb (58604) | 386 |

Medium: NH4Cl

| Be++ | dis | non-aq | 25°C | 100% | U | | K1=5.54 B2=11.11 | 1962BTa (58605) | 387 |
|---|---|---|---|---|---|---|---|---|---|

Medium: 2-xylene

**********

C8H6O4 H2L Phthalic acid CAS 88-99-3 (113)
Benzene-1,2-dicarboxylic acid; C6H4(COOH)2

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 0.50M | C | | K1=3.170 B2= 5.32<br>K(Be3(OH)3+L)=2.44 | 1999ACa (58950) | 388 |
| Be++ | gl | NaClO4 | 25°C | 0.15M | U | | K1=3.97 B2=5.69 | 1962BKa (58951) | 389 |

**********

C8H6O6S H3L CAS 31180-39-9 (8349)
2-Hydroxy-3-methyl-5-sulfobenzoic acid;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 0.10M | U | | K1=12.12 B2=21.08 | 1981CSc (59081) | 390 |

**********

C8H6O6S H3L CAS 41481-18-9 (8350)
2-Hydroxy-3-sulfo-5-methylbenzoic acid;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 0.10M | U | | K1=12.54 B2=21.61 | 1981CSc (59084) | 391 |

**********

C8H7NO2Cl2 HL CAS 13538-26-6 (6286)
3,5-Dichloro-2-hydroxyacetophenone oxime; Cl2(HO)C6H2.C(CH3):NOH

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | alc/w | 27°C | 75% | U | I | K1=8.00 B2=15.00 | 1976LGa (59117) | 392 |

Data in 75% EtOH. Data also in 75% acetone and 75% dioxan

**********

C8H7O2Cl HL CAS 1450-74-4 (6325)
2-Hydroxy-5-chloro-acetophenone; Cl(HO)C6H3.CO.CH3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | alc/w | 25°C | 20% | U | I | K1=9.13<br>*K(BeL)=-6.36 | 1996KOb (59213) | 393 |

Medium: 20% v/v EtOH/H2O, 0.10 M NaNO3. Data for 0.05 and 0.15 M NaNO3 in 20% EtOH/H2O. At I=0, K1=9.42, *K(BeL)=-6.61.

**********

C8H8O2 HL 2-Acetylphenol CAS 118-93-4 (1888)
2-Hydroxyacetophenone; HO.C6H4.CO.CH3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | alc/w | 25°C | 20% | U | I | K1=9.26 | 1996KOb (59457) | 394 |

*K(BeL)=-6.41
Medium: 20% v/v EtOH/H2O, 0.10 M NaNO3. Data for 0.05 and 0.15 M NaNO3 in 20% EtOH/H2O. At I=0, K1=9.54, *K(BeL)=-6.81.

**********

C8H8O2 HL CAS 1004-72-4 (3190)
alpha-Methyltropolone;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 50% | U | | K1=10.3 | B2=19.3 | 1954BFb (59581) | 395 |

**********

C8H8O2 HL CAS 583-80-2 (3191)
beta-Methyltropolone;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 50% | U | | K1=9.4 | B2=17.1 | 1954BFb (59592) | 396 |

**********

C8H8O3 H2L CAS 490-78-8 (6324)
2,5-Dihydroxyacetophenone; (HO)2C6H3.CO.CH3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | alc/w | 25°C | 20% | U | I | K1=9.24 | 1996KOb (59674) | 397 |

*K(BeL)=-6.30
Medium: 20% v/v EtOH/H2O, 0.10 M NaNO3. Data for 0.05 and 0.15 M NaNO3 in 20% EtOH/H2O. At I=0, K1=9.51, *K(BeL)=-6.57.

**********

C8H8O3 H2L o-Cresotic acid CAS 83-40-9 (2338)
2-Hydroxy-3-methylbenzoic acid; CH3.C6H3(OH).COOH

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 35°C | 0.10M | U | T | K1=13.05 | B2=21.83 | 1976ABe (59697) | 398 |
| Be++ | gl | diox/w | 30°C | 50% | U | | K1=7.17 | | 1971VMa (59698) | 399 |
| Medium: 50% dioxan, 0.1 M NaClO4 | | | | | | | | | | |
| Be++ | sp | none | ? | 0.0 | U | | K1=4.60 | | 1964PCa (59699) | 400 |

**********

C8H8O3 H2L p-Cresotic acid CAS 89-56-5 (3797)
2-Hydroxy-5-methylbenzoic acid, (5-methylsalicylic acid)

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 35°C | 0.10M | U | | K1=12.87 | B2=22.76 | 1976ABe (59708) | 401 |

**********

C8H8O3 H2L CAS 614-75-5 (4475)
2-Hydroxyphenylethanoic acid; HO.C6H4.CH2.COOH

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       EMF oth/un 20°C    ?  U        K1=8.29        1972MKb (59715) 402
*************************************************************************
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
-------------------------------------------------------------------------
Be++       kin none   25°C  0.0  U        K1=0.15        1978GKa (59813) 403
-------------------------------------------------------------------------
Be++       ix  NaClO4 18°C 0.10M U        K1=1.64        1965BKb (59814) 404
*************************************************************************
C8H8O3                 H2L                      CAS 621-37-4  (1832)
3-Hydroxyphenylethanoic acid; HO.C6H4.CH2COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       EMF oth/un 20°C    ?  U        K1=6.95        1972MKb (59897) 405
*************************************************************************
C8H8O3                 H2L                      CAS 156-38-7  (1831)
4-Hydroxyphenylethanoic acid; HO.C6H4.CH2COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       EMF oth/un 20°C    ?  U        K1=7.10        1972MKb (59939) 406
*************************************************************************
C8H8O3                 H2L    m-Cresotic acid  CAS 50-85-1  (1244)
4-Methylsalicylic acid; CH3.C6H3(OH).COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       gl  NaClO4 35°C 0.10M U        K1=12.94  B2=22.91  1976ABe (59994) 407
-------------------------------------------------------------------------
Be++       gl  diox/w 30°C  50%  U        K1=8.55        1971VMa (59995) 408
Medium: 50% dioxan, 0.1 M NaClO4
-------------------------------------------------------------------------
Be++       sp  none     ?   0.0  U        K1=4.62        1964PCa (59996) 409
*************************************************************************
C8H9NOS                HL                       CAS 4822-44-0  (3240)
N-(Mercaptoacetyl)aniline (thioglycolanilide); C6H5.NH.CO.CH2.SH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       gl  diox/w 30°C  75%  U        K1=9.54   B2=18.47  1961MAe (60159) 410
*************************************************************************
C8H9NO2S               HL                       CAS 104-18-7  (4575)
(4-Aminophenylthio)ethanoic acid; H2N.C6H4.S.CH2.COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
```

---
Be++ gl KNO3 25°C 0.05M M K1=3.90 1975DPb (60371) 411
**********
C8H9N3O2 HL CAS 38713-69-8 (4518)
2-Acetoacetamidopyrimidine; CH3.CO.CH2.CO.NH.C4H3N2
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 20°C 50% U K1=6.58 B2=11.94 1969KSe (60562) 412
Medium: 50% dioxan, 0.025 M NaClO4
**********
C8H9N3O7 H2L Uramildiacetic CAS 13055-06-5 (185)
5-Amino-2,4,6-trioxo-1,3-perhydrodiazimino-N,N-diethanoic acid;
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ cal KNO3 25°C 0.1M C H 1981CSb (60626) 413
DH(K1)=-11.7 kJ mol-1, DS=151 K J mol-1
---
Be++ gl KNO3 25°C 0.10M U T K1=10.13 1977SVa (60627) 414
---
Be++ gl KNO3 20°C 0.10M U K1=10.36 1963IFb (60628) 415
K(Be+HL)=3.44
**********
C8H11NO2 H2L Dopamine CAS 579-59-9 (251)
2-(3',4'-Dihydroxyphenyl)ethylamine; (HO)2.C6H3.CH2.CH2.NH2
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl KCl 25°C 0.10M U T H 1986CVb (61078) 416
K(Be+HL)=7.97
K(Be+2HL)=12.32
Data for 0-37 C. At 37 C, K(Be+HL)=7.25, K(Be+2HL)=11.55.
DH(Be+HL)=-26.8 kJ mol-1, DS=-63.9 J K-1 mol-1; DH(Be+2HL)=-52.9, DS=93.8
**********
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
---
Be++ nmr oth/un 20°C 0.03M U K1=8.5 B2=15.80 1992EYa (61091) 417
**********
C8H11NO3 H2L Noradrenaline CAS 138-65-8 (253)
Norepinephrine, 3,4-Dihydroxyphenylethanolamine; (HO)2C6H3.CH(CH2.NH2).OH
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl KCl 25°C 0.10M U T H K1=7.95 B2=11.05 1982CVa (61163) 418
Data for 0 and 37 C. DH(K1)=-36.2 kJ mol-1, DS(K1)=25 J K-1 mol-1;
DH(K2)=-11.4, DS(K2)=62.

**********

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 |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 75% | U | | K2=7.14 | 1972UDa (61300) | 419 |

Medium: 75% v/v dioxan, 0.01 M Me4NClO4

**********

C8H13NO6 H3L (3232)
N-(Carboxymethyl)iminodipropanoic acid; HOOC.CH2.N(CH2.CH2.COOH)2

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | O.50 | C | | K1=9.25 | 1987MDb (61810) | 420 |
| | | | | | | | K(Be+HL)=2.37 | | |

**********

C8H14O2 HL CAS 1540-35-8 (4487)
(3-Propyl)pentane-2,4-dione; CH3.CO.CH(CH2.CH2.CH3).CO.CH3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 25°C | 50% | U | | K1=9.09 B2=15.90 | 1971MKc (62032) | 421 |

Medium: 50% dioxan, 0.3 M NaClO4

**********

C8H14O2 HL CAS 7307-04-2 (3208)
5,5-Dimethylhexane-2,4-dione; CH3.CO.CH2.CO.C(CH3)3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 75% | U | | K2=10.47 | 1972UDa (62043) | 422 |

Medium: 75% v/v dioxan, 0.01 M Me4NClO4

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 25°C | 50% | U | | K1=9.78 B2=18.54 | 1971MKc (62044) | 423 |

Medium: 50% dioxan, 0.3 M NaClO4

**********

C8H14O2 HL CAS 3002-23-1 (4485)
6-Methylheptane-2,4-dione; CH3.CO.CH2.CO.CH2.CH(CH3)2

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 25°C | 50% | U | | K1=9.55 B2=18.34 | 1971MKc (62050) | 424 |

Medium: 50% dioxan, 0.3 M NaClO4

**********

C8H14O2 HL CAS 14090-87-0 (4486)
Octane-2,4-dione; CH3.CO.CH2.CO.CH2.CH2.CH2.CH3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 25°C | 50% | U | | K1=9.53 B2=18.18 | 1971MKc (62060) | 425 |

Medium: 50% dioxan, 0.3 M NaClO4

**********

C8H15NO2 HL CAS 2235-46-3 (4544)
N,N-Diethylacetoacetamide; CH3.CO.CH2.CO.N(CH2.CH3)2

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 20°C | 50% | U | | K1=11.30 | B2=20.01 | 1969KSe (62169) | 426 |

Medium: 0.025 NaClO4, 50% dioxan

**********

C8H18N2O10P2 H6L EDDADPO CAS 2310-83-0 (2436)
1,2-Diaminoethane-N,N'-diethanoic-N,N'-dimethylphosphonic acid;
(-CH2.N(CH2.COOH)(CH2.PO3H2))2

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | EMF | KCl | 25°C | 0.10M | U | | | 1968DMa (62896) | 427 |
| | | | | | | | K(Be+H2L) = 7.15 | | |
| | | | | | | | K(2Be+H2L) = 11.64 | | |

**********

C8H22N2O6P2 H4L CAS 13516-59-1 (3850)
2,2'-(Ethylenedi-imino)bis(propylphosphonic acid);

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | EMF | KCl | 25°C | 0.10M | U | | | | 1968DMb (63334) | 428 |
| | | | | | | | K(Be+H2L)=7.65 | | | |
| | | | | | | | K(2Be+H2L)=11.33 | | | |
| Be++ | gl | KCl | 25°C | 0.10M | U | | K1=7 | | 1965DKb (63335) | 429 |

**********

C9H5NOBr2 HL CAS 521-74-4 (3279)
5,7-Dibromo-8-hydroxyquinoline;

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | dis | oth/un | 20°C | 1.0M | U | | K1=7.51 | B2=20.27 | 1968RSd (63517) | 430 |
| Be++ | sp | none | ? | 0.0 | U | | K1=3.44 | | 1964PCa (63518) | 431 |

**********

C9H5NOCl2 HL CAS 773-76-2 (3278)
5,7-Dichloro-8-hydroxyquinoline;

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | dis | oth/un | 20°C | 1.0M | U | | K1=6.4 | B2=12.18 | 1968RSd (63540) | 432 |

**********

C9H5NOI2 HL CAS 83-73-8 (3280)
5,7-Di-iodo-8-hydroxyquinoline;

---

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       dis oth/un 20°C  1.0M U        K1=9.19   B2=15.09  1968RSd (63557) 433
Medium: 75% v/v dioxan, 0.1 M NaClO4
*************************************************************************
C9H6NO4IS             H2L    Ferron           CAS 547-91-1  (275)
7-Iodo-8-hydroxyquinoline-5-sulfonic acid; (HO)(HO3S)C9H4NI
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       gl  KNO3   28°C 0.10M U        K1=4.65   B2=9.90   1971LSb (63782) 434
*************************************************************************
C9H7NO                 HL    Oxine            CAS 148-24-3  (504)
8-Hydroxyquinoline (8-quinolinol);
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       dis oth/un 20°C  1.0M U        K1=7.77   B2=15.55  1968RSd (64238) 435
-------------------------------------------------------------------------
Be++       sp  none     ?   0.0  U        K1=3.36        1964PCa (64239) 436
*************************************************************************
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
-------------------------------------------------------------------------
Be++       sp  none   24°C  0.0  C        K1=5.46        1976BIa (64525) 437
Method: fluorescence
*************************************************************************
C9H8O4                H2L                   CAS 2613-89-0  (1145)
Phenylmalonic acid; HOOC.CH(C6H5).COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C        K1=5.130  B2= 8.61  1999ACa (64993) 438
                                        K(Be3(OH)3+L)=4.92
                                        K(Be3(OH)3+3L)=11.05
*************************************************************************
C9H10N2O2              HL                   CAS 52829-64-8  (4627)
2-Acetoacetamidopyridine; C5H4N.NH.CO.CH2.CO.CH3
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       gl  diox/w 20°C  50%  U        K1=6.99   B2=12.75  1969KSd (65226) 439
Medium: 50% dioxan, 0.025 M NaClO4
-------------------------------------------------------------------------
Be++       gl  KNO3   25°C 0.10M U        K1=6.55   B2=11.23  1967HAb (65227) 440
*************************************************************************
C9H10N2O2              HL                     (3265)
Salicylaldehyde acetylhydrazone; HO.C6H4.CH:N.NH.CO.CH3
```

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  alc/w  20°C  50%  U        K1=<7          1959HOa (65238) 441
********************************************************************************
C9H10N2O5             H3L                        (4645)
4,5,6,7-Tetrahydroindazol-3-one-5,5-dicarboxylic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  diox/w 25°C  50%  U                        1969ZSa (65277) 442
                                          K(Be+HL)=8.85
********************************************************************************
C9H10O8               H4L                        CAS 3724-52-5  (1264)
cis-1,2,3,4-Cyclopentanetetracarboxylic acid; C5H6.(COOH)4
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.19M U        K1=6.46   B2=11.36  1986MSc (65639) 443
********************************************************************************
C9H11NO                HL                         CAS 10229-63-7  (3872)
N-(Salicylidene)aminoethane; HO.C6H4.CH:N.CH2.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       dis oth/un 25?°C    ?  U         K1=10.4   B2=18.3   1966GSc (65669) 444
                                          K(BeL(OH)2+2H=BeL)=18.4
********************************************************************************
C9H11NOS               HL                         CAS 34282-30-9  (3287)
N-(Mercaptoacetyl)-4-methylanilide; CH3.C6H4.NH.CO.CH2.SH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  diox/w 30°C  75%  U        K1=9.48   B2=18.50  1961MAe (65675) 445
********************************************************************************
C9H11NO2               HL    Phenylalanine    CAS 63-91-2  (2)
2-Amino-3-phenylpropanoic acid; H2N.CH(CH2.C6H5)COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       sp  oth/un   ?     ?  U        B2=3.21        1964PCa (65925) 446
--------------------------------------------------------------------------------
Be++       gl  oth/un 20°C .005M U        B2=11.9        1953PEa (65926) 447
Medium: 0.005 BeSO4
********************************************************************************
C9H11NO3               H2L    Tyrosine         CAS 60-18-4  (4)
2-Amino-3-(4-hydroxyphenyl)propanoic acid; HO.C6H4.CH2.CH(NH2).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
```

Be++ gl oth/un 20°C .002M U B2=11.1 1953PEa (66211) 448
Medium: 0.002 BeSO4
**********
C9H11NO3 HL Phenylserine CAS 2180-37-2 (2546)
2-Amino-3-hydroxy-3-phenylpropanoic acid; C6H5.CH(OH).CH(NH2)COOH
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl oth/un 17°C .005M U B2=11.1 1953PEa (66258) 449
Medium: 0.005 BeSO4
**********
C9H11NO4 H3L DOPA CAS 59-92-7 (5)
2-Amino-3-(3,4-dihydroxyphenyl)propanoic acid;H2NCH(CH2C6H3(OH)2)COOH
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl oth/un 20°C .005M U B2=11.6 1953PEa (66395) 450
Medium: 0.005 BeSO4
**********
C9H11N3O7 H3L (3877)
N-(1-Methyl-2,4,6-trioxo-perhydropyrimidinyl)iminodiethanoic acid;
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl KNO3 20°C 0.10M U K1=10.42 1963IFb (66524) 451
K(Be+HL)=3.32
**********
C9H13NO3 H2L (-)Adrenaline CAS 51-43-4 (252)
4-(1-Hydroxy-2-(methylamino)ethyl)-1,2-dihydroxybenzene,
Epinephrine;CH3NHCH(OH)C6H3(OH)2
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl KCl 25°C 0.10M U T H K1=8.63 B2=12.61 1983CVa (66860) 452
Data for 0 and 37 C. DH(K1)=-44.9 kJ mol-1, DS(K1)=8.3 J K-1 mol-1;
DH(K2)=-41.7, DS(K2)=-44.6.
---
Be++ gl KCl 25°C 0.12M U T K1=9.65 B2=15.96 1969CAb (66861) 453
K1(0 C)=10.78, K1(15 C)=10.08, K1(35 C)=8.75, K1(45 C)=8.30
K2(0 C)=7.47, K2(15 C)=6.90, K2(35 C)=5.60, K2(45 C)=5.20
**********
C9H15NO2 HL CAS 15871-65-5 (4655)
N-Acetoacetylpiperidine; C5H10N-CO.CH2.CO.CH3
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 20°C 50% U K1=11.01 B2=19.68 1969KSe (67380) 454
Medium: 50% dioxan, 0.025 M NaClO4
**********
C9H15NO6 H3L CAS 817-11-8 (3271)

3,3',3''-Nitrilotripropanoic acid; (HOOC.CH2.CH2)3N

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | O.50 | C | | K1=9.23 | | 1987MDb (67432) | 455 |
| Be++ | gl | KNO3 | 20°C | 0.10M | M | | K1=7.90 | | 1975VBb (67433) | 456 |

C9H24N3O9P3 H6L NOTPH CAS 83843-39-3 (224)
1,4,7-Triazacyclononane-N,N',N"-tris(methylenephosphonic acid);

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | KNO3 | 25°C | 1.00M | U | M | | | 1988MKb (68313) | 457 |
| | | | | | | | B(BeCuL)=28.7 | | | |
| | | | | | | | K(Be+Cu+HL)=22.1 | | | |
| | | | | | | | K(Be+CuL)=7.4 | | | |
| | | | | | | | K(Be+CuHL)=5.7 | | | |
| Be++ | gl | KCl | 25°C | 1.0M | U | | | | 1984KMa (68314) | 458 |
| | | | | | | | K(Be+HL)=11.5 | | | |
| | | | | | | | K(Be+H2L)=9.3 | | | |
| | | | | | | | K(Be+H3L)=7.3 | | | |

C10H6O3 HL CAS 83-72-7 (3294)
2-Hydroxy-1,4-naphthoquinone;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 75% | U | | K1=5.62 | B2=10.24 | 1960KFc (68459) | 459 |

C10H7NO2 HL CAS 131-91-9 (2668)
1-Nitroso-2-naphthol, alpha-Nitroso-beta-naphthol;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 50% | U | | K1=6.40 | B2=11.48 | 1970SSe (68572) | 460 |

Medium: 50% dioxan, 0.2 M

C10H7NO8S2 H3L Nitroso-R acid CAS 525-05-3 (1811)
1-Nitroso-2-hydroxynaphthalene-3,6-disulfonic acid;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | oth | oth/un | 30°C | 0.0 | U | | K1=5.30 | B2=9.30 | 1973GBa (69002) | 461 |

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

```
--------------------------------------------------------------------------------
Be++       nmr oth/un 20°C 0.03M U        K1=16.2   B2=28.20  1992EYa (69930) 462
--------------------------------------------------------------------------------
Be++       gl  NaNO3  25°C 0.10M U        K1=16.3        1990HWa (69931) 463
--------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C    M   K1=13.38  B2=23.30  1977SLa (69932) 464
                                         B(BeHL)=15.92
--------------------------------------------------------------------------------
Be++       gl  NaClO4 30°C 0.20M U        K1=16.69  B2=29.14  1967AMa (69933) 465
--------------------------------------------------------------------------------
Be++       gl  KNO3   20°C 0.10M U        K1=16.34  B2=28.19  1967BZa (69934) 466
                                         K(Be+HL)=2.9
--------------------------------------------------------------------------------
Be++       gl  KNO3   20?°C 0.10M U        K1=16.89  B2=32.79  1965DMb (69935) 467
********************************************************************************
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
--------------------------------------------------------------------------------
Be++       dis oth/un 20°C  1.0M U        K1=8.14   B2=15.80  1968RSd (70044) 468
********************************************************************************
C10H9NO2Cl2            HL                        (3333)
N-2,5-Dichlorophenylacetoacetamide  (Acetoacet-2,5-dichloroanilide)
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  diox/w 25°C  50%  U        K1=7.17   B2=13.05  1969HSc (70144) 469
Medium: 50% dioxan, 0.1 M KClO4
--------------------------------------------------------------------------------
Be++       gl  diox/w 20°C  50%  U        K1=6.57   B2=11.85  1969KSe (70145) 470
Medium: 50% dioxan, 0.025 M NaClO4
--------------------------------------------------------------------------------
Be++       gl  diox/w 25°C  50%  U        K1=6.7    B2=12.1   1963HAd (70146) 471
********************************************************************************
C10H10NO2Br            HL                      CAS 21675-02-5  (4785)
1-Acetoacetamido-4-bromobenzene; CH3.CO.CH2.CO.NH.C6H4.Br
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  diox/w 25°C  50%  U        K1=8.37   B2=15.25  1972HHa (70465) 472
********************************************************************************
C10H10NO2Cl            HL                      CAS 91573-19-2  (4783)
1-Acetoacetamido-3-chlorobenzene; CH3.CO.CH2.CO.NH.C6H4.Cl
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  diox/w 20°C  50%  U        K1=7.59   B2=13.80  1969KSe (70469) 473
Medium: 50% dioxan, 0.025 M NaClO4
********************************************************************************
```

C10H10NO2Cl HL CAS 3027-00-7 (4784)
1-Acetoacetamido-4-chlorobenzene; CH3.CO.CH2.CO.NH.C6H4.Cl

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 25°C | 50% | U | | K1=8.39 | B2=15.39 | 1972HHa (70476) | 474 |
| Be++ | gl | diox/w | 20°C | 50% | U | | K1=7.79 | B2=14.17 | 1969KSe (70477) | 475 |

Medium: 50% dioxan, 0.025 M NaClO4

**********

C10H10NO2Cl HL CAS 6144-11-0 (247)
Acetoacet-2-chloroacetanilide; CH3.CO.CH2.CO.NH.C6H4.Cl

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 25°C | 50% | U | I | K1=7.81 | B2=14.18 | 1969HSc (70489) | 476 |

Medium: 50% dioxan, 0.1 M KClO4. In 50% dioxan: K1=9.77, K2=8.45

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 20°C | 50% | U | | K1=6.99 | B2=12.49 | 1969KSe (70490) | 477 |

Medium: 50% dioxan, 0.025 M NaClO4

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 25°C | 50% | U | | K1=7.4 | B2=13.6 | 1963HAd (70491) | 478 |

**********

C10H10NO2F HL CAS 85117-88-0 (4787)
4-Fluoroacetoacetanilide; CH3.CO.CH2.CO.NH.C6H4.F

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 25°C | 50% | U | | K1=8.66 | B2=15.86 | 1972HHa (70496) | 479 |

**********

C10H10NO2I HL (4786)
4-Iodoacetoacetanilide; CH3.CO.CH2.CO.NH.C6H4.I

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 25°C | 50% | U | | K1=8.34 | B2=15.23 | 1972HHa (70501) | 480 |

**********

C10H10N2O4 HL CAS 92642-18-7 (4725)
1-Acetoacetamido-2-nitrobenzene; CH3.CO.CH2.CO.NH.C6H4.NO2

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 20°C | 50% | U | | K1=6.55 | B2=11.75 | 1969KSe (70566) | 481 |

Medium: 50% dioxan, 0.025 M NaClO4

**********

C10H10N2O4 HL CAS 7418-44-2 (4726)
1-Acetoacetamido-3-nitrobenzene; CH3.CO.CH2.CO.NH.C6H4.NO2

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

Be++ gl diox/w 20°C 50% U K1=7.21 B2=13.02 1969KSe (70570) 482
Medium: 50% dioxan, 0.025 M NaClO4
**********
C10H10N2O4 HL CAS 91573-21-6 (4727)
1-Acetoacetamido-4-nitrobenzene; CH3.CO.CH2.CO.NH.C6H4.NO2
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 25°C 50% U K1=7.15 B2=12.83 1972HHa (70577) 483
---
Be++ gl diox/w 20°C 50% U K1=7.49 B2=13.43 1969KSe (70578) 484
Medium: 50% dioxan, 0.025 M NaClO4
**********
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
---
Be++ gl diox/w 20°C 17% C K1=12.39 B2=23.15 1976JWa (70710) 485
---
Be++ dis R4N.X 20°C 1.0M U B2=16.06 1971SGb (70711) 486
---
Be++ dis R4N.X 20°C 1.0M U K1=9.0 B2=16.06 1968RSe (70712) 487
---
Be++ gl diox/w 30°C 75% U K1=12.02 B2=23.38 1955HOa (70713) 488
---
Be++ gl diox/w 30°C 75% U K1=12.59 B2=24.01 1953UFa (70714) 489
**********
C10H10O3 HL CAS 16636-62-7 (3298)
2-Hydroxybenzoylacetone; HO.C6H4.CO.CH2.CO.CH3
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 30°C 75% U K1=10.52 B2=19.99 1955HOa (70799) 490
**********
C10H11NO2 L CAS 102-01-2 (250)
Acetoacetanilide; CH3.CO.CH2.CO.NH.C6H5
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 25°C 50% U I K1=8.69 B2=15.92 1969HSc (70904) 491
Medium: 50% dioxan, 0.1 M KClO4
In 0.1 NaClO4, 75% dioxan: K1=10.79, K2=9.29
---
Be++ gl diox/w 25°C 50% U T K1=8.69 B2=15.92 1969HSc (70905) 492
Medium:50% dioxan. K1:(10 C)=8.78,(15 C)=8.79,(20)=8.73,(30)=8.69,(35)=8.69
(40)=8.65, K2:(10)=7.26,(15)=7.18,(20)=7.21,(30)=7.23,(35)=7.23,(40)=7.23
---
Be++ gl diox/w 25°C 50% U K1=8.08 B2=14.41 1969KSe (70906) 493
Medium: 50% dioxan, 0.025 M NaClO4

---
Be++ gl diox/w 25°C 50% U K1=8.3 B2=15.3 1963HAd (70907) 494
**********
C10H12N2O2 HL CAS 89314-29-4 (8507)
2-[(4-Methylphenyl)hydrazono]-propanoic acid;
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl alc/w 30°C 40% M M K1=4.30 B2= 8.08 1995RRe (71196) 495
K(BeL+A)=12.50
K(BeL+en)=10.00
K(BeL+pro)=7.34
K(BeL+B)=6.30
Medium: 40% v/v EtOH/H2O, 0.10 M KNO3. K(BeL+ala)=6.41, K(BeL+gly)=6.63.
H2A is catechol, HB is hydroxyproline.
---
Be++ gl alc/w 30°C 40% M M 1995RRe (71197) 496
K(Be(phe)+L)=4.20
K(BeA+L)=2.60
Medium: 40% v/v EtOH/H2O, 0.10 M KNO3. H2A is salicylic acid.
**********
C10H12O2 HL CAS 1946-74-3 (202)
3-Isopropyltropolone;
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 30°C 50% U K1=10.7 B2=19.8 1954BFb (71572) 497
---
Be++ gl diox/w 30°C 50% U K1=9.1 B2=16.6 1954BFb (71573) 498
**********
C10H12O2 HL CAS 499-44-5 (3303)
4-Isopropyltropolone;
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ sp NaClO4 25°C 0.10M U H 1991IIa (71630) 499
K(Be+HL=BeL+H)=1.17
DH=2.4 kJ mol-1, DS=9.2 J K-1 mol-1
**********
C10H13NOS HL CAS 99075-17-9 (3339)
2-Mercapto-N-phenylbutyramide (2-Mercaptobutyranilide)
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 30°C 75% U K1=10.21 B2=19.89 1961MAe (71702) 500
**********
C10H13NOS HL CAS 34282-28-5 (3338)
N-(Mercaptoacetyl)-2,6-dimethylaniline; (CH3)2.C6H3.NH.CO.CH2.SH
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo

```
------------------------------------------------------------------------------
Be++       gl  diox/w 30°C  75%  U        K1=9.84   B2=19.14  1961MAe (71708) 501
******************************************************************************
C10H13NO3S             HL                          (3340)
N-(Mercaptoacetyl)-2,5-dimethoxyaniline; HS.CH2.CO.NH.C6H3(OCH3)2
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Be++       gl  diox/w 30°C  75%  U        K1=9.59   B2=18.55  1961MAe (71751) 502
******************************************************************************
C10H13N3O7           H3L                           (3912)
1,3-Dimethyluramil-N,N-diethanoic acid;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Be++       gl  KNO3   20°C 0.10M U        K1=10.54       1963IFb (71804) 503
                                         K(Be+HL)=3.54
******************************************************************************
C10H15NO                L    Ephedrine        CAS 299-42-3  (1836)
(1-Methylaminoethyl)benzyl alcohol; C6H5.CH(OH)CH(CH3)NHCH3
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Be++       gl  KCl    25°C 0.12M U T      K1=6.57   B2=12.04  1969CAc (72642) 504
K1(0 C)=6.96, K1(15 C)=6.80, K1(35 C)=6.19, K1(45 C)=5.90
K2(0 C)=5.67, K2(15 C)=5.55, K2(35 C)=5.11, K2(45 C)=4.81
******************************************************************************
C10H16N2O8           H4L    EDTA             CAS 60-00-4  (120)
1,2-Diaminoethane-N,N,N',N'-tetraethanoic acid, Sequestric acid;
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C        K1=7.90        1995CDa (73611) 505
------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M U        K1=8.06        1986MFa (73612) 506
                                         K(Be+HL)=3.48
                                         K(BeL+H)=4.32
------------------------------------------------------------------------------
Be++       gl  KNO3   25°C 0.10M U T      K1=9.63        1977SVa (73613) 507
------------------------------------------------------------------------------
Be++       gl  KNO3   20°C 0.10M M        K1=9.7         1975VBb (73614) 508
------------------------------------------------------------------------------
Be++       dis NaNO3  30°C 0.10M U        K1=8.68        1970BBc (73615) 509
------------------------------------------------------------------------------
Be++       ix  NaCl   20°C 0.10M U        K1=8.4         1966BLb (73616) 510
                                         K(Be+HL)=2.1
                                         K(Be+H2L)=3.7
                                         K(Be+H3L)=2.7
------------------------------------------------------------------------------
Be++       sol oth/un 20°C 0.30M U        K1=10.2        1963SSd (73617) 511
```

K(BeL+OH)=5.4
From the Davies equation, 0.1 M: K1=10.8, K(BeL+OH)=5.2
---
Be++ dis NaClO4 20°C 0.10M U T K1=9.27 1963STc (73618) 512
Medium: KClO4
**********
C10H18O2 HL CAS 37970-50-9 (4711)
(3-Pentyl)pentane-2,4-dione; CH3.CO.CH(CH2.CH2.CH3).CO.CH3
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 25°C 50% U K1=8.47 B2=15.87 1971MKc (75588) 513
Medium: 50% dioxan, 0.3 M NaClO4
**********
C10H18O2 HL CAS 53329-78-7 (4710)
Decane-2,4-dione; CH3.CO.CH2.CO.(CH2)5.CH3
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 25°C 50% U K1=9.54 B2=18.41 1971MKc (75590) 514
Medium: 50% dioxan, 0.3 M NaClO4
**********
C10H18O2 HL CAS 73910-38-6 (4707)
Isobutyryl pivaloyl methane; (CH3)2.CH.CO.CH2.CO.C(CH3)3
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 30°C 75% U K2=11.23 1972UDa (75597) 515
Medium: 75% v/v dioxan, 0.01 M Me4NClO4
**********
C10H19NO2 HL (4752)
N,N-Dipropylacetoacetamide; CH3.CO.CH2.CO.N(CH2.CH2.CH3)2
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 20°C 50% U K1=11.40 B2=20.31 1969KSe (75627) 516
Medium: 50% dioxan, 0.025 M NaClO4
**********
C10H26N2O6P2S H4L CAS 17156-08-0 (4799)
Thiobis(ethyleneimino(dimethyl)methylenephosphonic acid);
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ EMF KCl 25°C 0.10M U 1968DMb (76746) 517
K(Be+H2L)=7.15
K(2Be+H2L)=11.97
**********
C10H26N2O7P2 H4L CAS 14619-28-4 (4796)
Oxybis(ethyleneimino(dimethyl)methylenephosphonic acid);
---

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       EMF KCl    25°C 0.10M U                      1968DMb (76748) 518
                                      K(Be+H2L)=7.34
                                      K(2Be+H2L)=12.46
*************************************************************************
C11H8O2                HL                    CAS 3144-47-6  (3344)
3,4-Benzotropolone;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       gl  diox/w 30°C  50%  U        K1=9.2    B2=17.1   1954BFc (76972) 519
*************************************************************************
C11H8O2                HL                      (3345)
4,5-Benzotropolone;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       gl  diox/w 30°C  50%  U        K1=8.8    B2=16.2   1954BFc (76977) 520
*************************************************************************
C11H8O3               H2L                    CAS 86-48-6  (1129)
1-Hydroxy-2-naphthoic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       gl  diox/w 30°C  50%  U        K1=13.23  B2=22.73  1970SSe (77007) 521
Medium: 50% dioxan, 0.2 M NaClO4
*************************************************************************
C11H8O3               H2L                    CAS 92-70-6  (1130)
2-Hydroxy-3-naphthoic acid (3-Hydroxy-2-naphthoic acid);
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       gl  KNO3   30°C 0.15M U  IH    K1=12.58  B2=20.14  1976SSc (77114) 522
-------------------------------------------------------------------------
Be++       gl  diox/w 30°C  50%  U        K1=12.35  B2=20.85  1970SSe (77115) 523
Medium: 50% dioxan, 0.2 M
-------------------------------------------------------------------------
Be++       sp  oth/un 25°C  0.0  U  I     K1=12.51       1966MAh (77116) 524
In KCl: K(Be+HL=BeL+H)=0.33+2.026sqrtI/(1+1.75sqrtI)-0.05I
-------------------------------------------------------------------------
Be++       gl  alc/w  22°C  50%  U        K1=11.98  B2=19.90  1961AMb (77117) 525
Medium: 50% EtOH
*************************************************************************
C11H8O3S               HL                    CAS 32267-05-3  (3353)
2-Furoyl-2-thenoylmethane; C4H3O.CO.CH2.CO.C4H3S
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       gl  diox/w 30°C  75%  U        K1=12.73  B2=24.17  1953UFd (77156) 526
```

```
**************************************************************************
C11H8O6S              H3L                     CAS 66695-90-7  (1996)
1-Hydroxy-4-sulfo-2-naphthoic acid;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.10M C    M   K1=11.19  B2=20.06  1978LAb (77220) 527
**************************************************************************
C11H8O6S              H3L                     CAS 3386-64-6  (2657)
3-Hydroxy-5-sulfo-2-naphthoic acid;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.10M C    M   K1=11.05  B2=18.94  1974SRc (77243) 528
**************************************************************************
C11H8O6S              H3L                     CAS 15509-36-1  (2658)
3-Hydroxy-7-sulfo-2-naphthoic acid;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.10M C    M   K1=11.15  B2=19.56  1974SRc (77248) 529
**************************************************************************
C11H8O7S              H4L                     CAS 6407-90-5  (2683)
1,7-Dihydroxy-4-sulfo-2-naphthoic acid;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C        K1=14.43  B2=20.85  1982LAa (77264) 530
                                         B(BeHL2)=30.11
                                         B(BeH2L2)=38.76
                                         B(BeHL)=20.33
--------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C        K1=14.43  B2=20.85  1982LKc (77265) 531
                                         B(BeHL)=20.33
                                         B(BeH2L2)=38.76
                                         B(BeHL2)=30.11
**************************************************************************
C11H8O7S              H4L                     CAS 6470-93-5  (8345)
3,5-Dihydroxy-7-sulfo-2-naphthoic acid;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C        K1=13.64  B2=20.79  1982LAa (77269) 532
                                         B(BeHL)=20.00
                                         B(BeHL2)=29.85
                                         B(BeH2L2)=38.00
**************************************************************************
C11H8O9S2             H4L                     CAS 67097-84-1  (1995)
1-Hydroxy-4,7-disulfo-2-naphthoic acid;
--------------------------------------------------------------------------
```

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 0.50M | C | M | K1=10.50 | B2=18.70 | 1978LTa (77275) | 533 |

C11H8O9S2 H4L CAS 67097-83-0 (1618)
3-Hydroxy-5,7-disulfo-2-naphthoic acid;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 0.50M | C | M | K1=10.18 | B2=18.17 | 1974SRd (77294) | 534 |

C11H9NO2S HL CAS 29556-13-6 (1450)
N-Phenyl-2-thenoylhydroxamic acid; C4H3SCON(C6H5)OH

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 25°C | 70% | U | | K1=10.11 | B2=19.01 | 1992DAc (77348) | 535 |

For N-m-Cl derivative, K1=10.20, K2=8.97; for N-p-Cl, K1=10.40, K2=9.21.

C11H9NO3 HL CAS 1137-48-0 (1449)
N-Phenyl-2-furylhydroxamic acid; C4H3O.CO.N(C6H5).OH

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 25°C | 70% | U | | K1=9.98 | B2=18.70 | 1992DAc (77391) | 536 |

For N-p-tolyl derivative, K1=10.40, K2=9.20, for N-m-Cl, K1=10.00,
K2=8.36; for N-p-Cl, K1=10.25, K2=9.00.

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

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 25°C | 50% | U | | K1=7.37 | B2=13.25 | 1972HHa (77413) | 537 |

C11H12NOCl L CAS 50519-24-9 (3367)
4-(4-Chlorophenylimino)pentan-2-one; CH3.CO.CH2.C(:N.C6H4.Cl).CH3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 50% | U | | K1=11.47 | B2=22.22 | 1961MJa (77980) | 538 |

C11H12NO2Cl HL CAS 42313-41-7 (4867)
N-2-Methyl-3-chlorophenylacetoacetamide; CH3.CO.CH2.CO.NH.C6H3(CH3).Cl

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 20°C | 50% | U | | K1=7.68 | B2=13.70 | 1969KSe (77986) | 539 |

Medium: 50% dioxan, 0.025 M NaClO4

C11H12NO2Cl HL CAS 78208-47-8 (4868)
N-2-Methyl-5-chlorophenylacetoacetamide; CH3.CO.CH2.CO.NH.C6H3(CH3).Cl

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 20°C | 50% | U | | K1=7.53 | B2=13.36 | 1969KSe (77991) | 540 |

Medium: 50% dioxan, 0.025 M NaClO4

**********

C11H12N2O2 HL Tryptophan CAS 73-22-3 (3)
2-Amino-3-(3-indolyl)propanoic acid; H2N.CH(CH2.C8H6N)COOH

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | oth/un | 20°C | .005M | U | | B2=11.6 | | 1953PEa (78191) | 541 |

Medium: 0.005 BeSO4

**********

C11H12N2O3 HL CAS 20771-72-6 (3359)
4-(4-Nitrophenylimino)pentan-2-one; CH3.CO.CH2.C(:N.C6H4.NO2).CH3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 50% | U | | K1=12.04 | B2=22.67 | 1961MJa (78277) | 542 |

**********

C11H13NO HL CAS 880-12-6 (3361)
4-(Phenylimino)pentan-2-one; CH3.CO.CH2.C(:N.C6H5).CH3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 50% | U | | K1=10.87 | B2=21.36 | 1961MJa (78439) | 543 |

**********

C11H13NO2 HL CAS 38968-47-7 (4843)
1-Acetoacetamido-4-methylbenzene; CH3.CO.CH2.CO.NH.C6H4.CH3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 20°C | 50% | U | | K1=8.53 | B2=15.19 | 1969KSe (78448) | 544 |

Medium: 50% dioxan, 0.025 M NaClO4

**********

C11H13NO2 HL CAS 3026-99-1 (249)
Acetoacet-2-toluidide; CH3.CO.CH2.CO.NH.C6H4.CH3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 25°C | 50% | U | | K1=8.48 | B2=15.36 | 1969HSc (78462) | 545 |

Medium: 50% dioxan, 0.1 M KClO4
In 75% dioxan, 0.1 M NaClO4: K1=10.48, K2=9.07

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 20°C | 50% | U | | K1=7.86 | B2=13.71 | 1969KSe (78463) | 546 |

Medium: 50% dioxan, 0.025 M NaClO4

Be++ gl diox/w 25°C 50% U K1=7.9 B2=14.5 1963HAd (78464) 547
**********
C11H13NO2 HL CAS 20222-64-4 (4842)
N-3-Tolylacetoacetamide; CH3.CO.CH2.CO.NH.C6H4.CH3
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 25°C 50% U K1=8.87 B2=16.28 1972HHa (78472) 548
---
Be++ gl diox/w 20°C 50% U K1=8.34 B2=14.94 1969KSe (78473) 549
Medium: 50% dioxan, 0.025 M NaClO4
**********
C11H13NO3 HL CAS 101374-66-7 (4844)
1-Acetoacetamido-3-methoxybenzene; CH3.CO.CH2.CO.NH.C6H4.OCH3
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 20°C 50% U K1=8.07 B2=14.49 1969KSe (78483) 550
Medium: 50% dioxan, 0.025 M NaClO4
**********
C11H13NO3 HL CAS 3006-35-7 (4845)
1-Acetoacetamido-4-methoxybenzene; CH3.CO.CH2.CO.NH.C6H4.OCH3
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 25°C 50% U K1=8.90 B2=16.36 1972HHa (78490) 551
---
Be++ gl diox/w 20°C 50% U K1=8.65 B2=15.36 1969KSe (78491) 552
Medium: 50% dioxan, 0.025 M NaClO4
**********
C11H13NO3 HL CAS 91099-10-4 (246)
Acetoacet-2-anisidide; CH3.CO.CH2.CO.NH.C6H4.OCH3
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 25°C 50% U K1=8.58 B2=15.63 1969HSc (78518) 553
Medium: 50% dioxan, 0.1 M KClO4
In 75% dioxan, 0.1 M NaClO4: K1=10.65, K2=9.18
---
Be++ gl diox/w 20°C 50% U K1=7.87 B2=14.07 1969KSe (78519) 554
Medium: 50% dioxan, 0.025 M NaClO4
---
Be++ gl diox/w 25°C 50% U K1=8.1 B2=15.0 1963HAd (78520) 555
**********
C11H14O2S HL (4857)
2-Thenoylpivaloylmethane; C4H3S.CO.CH2.CO.C(CH3)3
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 30°C 75% U K2=10.21 1972UDa (79005) 556

Medium: 75% v/v dioxan, 0.01 M Me4NClO4
**********
C11H14O3 HL (4819)
2-Furoyl pivaloyl methane; C4H3O.CO.CH2.CO.C(CH3)3
---
| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 75% | U | | K2=10.10 | 1972UDa (79011) | 557 |

Medium: 75% v/v dioxan, 0.01 M Me4NClO4
**********
C11H15NO HL CAS 2565-54-0 (3948)
Salicylideneaminobutane; (2-OH).C6H4.CH:N.CH2.CH2.CH2.CH3
---
| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | dis | oth/un | 25?°C | 0.0 | U | | K1=11.11 B2=20.44 | 1965GAa (79019) | 558 |

**********
C11H17NO3 H2L Isoprenaline CAS 586-06-1 (3950)
3,4-Dihydroxy-1-(1'-hydroxy-2'-(propylamino)ethyl)benzene;
---
| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | KCl | 25°C | 0.10M | U | T H | K1=8.25 B2=13.45 | 1988CVa (79157) | 559 |

Data for 0 and 37 C. DH(K1)=-9.33 kJ mol-1, DS(K1)=127.7 J K-1 mol-1;
DH(K2)=-1.2, DS(K2)=96.1.
**********
C11H18N2O8 H4L PDTA CAS 4408-81-5 (1655)
1,2-Diaminopropane-N,N,N',N'-tetraethanoic acid;
---
| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 0.50M | C | | K1=7.83 | 1995CDa (79265) | 560 |

**********
C11H18N2O8 H4L CAS 4408-81-5 (923)
1,3-Diaminopropane-N,N,N',N'-tetraethanoic acid; ((HOOC.CH2)2N.CH2.)2.CH2
---
| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 0.50M | C | | K1=9.45<br>B(-3,1,1)=7.46<br>B(-4,1,1)=13.04<br>B(-6,3,1)=16.34 | 1996MDa (79425) | 561 |

B(p,q,r): pH+qBe+rH4L=Hp(Be)q(H4L)r.
**********
C11H20O2 HL Dipivaloylmeth. CAS 1118-71-4 (363)
2,2,6,6-Tetramethyl-3,5-heptanedione; (CH3)3C.CO.CH2.CO.C(CH3)3
---
| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 75% | U | | K2=11.45 | 1972UDa (79743) | 562 |

Medium: 75% v/v dioxan, 0.01 M Me4NClO4

**********

C11H28N2O6P2 H4L CAS 17166-00-6 (4876)
2,2'-(Pentamethylenedi-imino)bis(propylphosphonic acid);

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | EMF | KCl | 25°C | 0.10M | U | | K(Be+H2L)=6.15<br>K(2Be+H2L)=11.21 | 1968DMb (80037) | 563 |

**********

C12H9N2O2Cl H2L CAS 29600-20-2 (2638)
4-Chlorobenzene-(1-azo-1')-3',4'-dihydroxybenzene; ClC6H5.N:N.C6H3(OH)2

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | sp | alc/w | 20°C | 10% | U | | K(Be2O+L)=7.5 | 1981BRb (80593) | 564 |

**********

C12H9N3O4 H2L CAS 843-33-4 (2639)
4-(3,4-Dihydroxyphenylazo)nitrobenzene; (HO)2.C6H3.N:N.C6H4.NO2

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | sp | alc/w | 20°C | 10% | U | | K(Be2O+L)=5.6 | 1981BRb (80636) | 565 |

**********

C12H10N2O2 H2L CAS 2050-16-0 (2636)
3,4-Dihydroxyazobenzene; C6H5.N:N.C6H3(OH)2

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | sp | alc/w | 20°C | 10% | U | | K(Be2O+L)=8.4 | 1981BRb (80713) | 566 |

**********

C12H10N2O5S H3L Tropeolin 0 CAS 547-57-9 (1090)
Chrysoin; HSO3.C6H4.N:N.C6H3(OH)2

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | sp | alc/w | 20°C | 10% | U | | K(Be2O+L)=6.6 | 1981BRb (80737) | 567 |

**********

C12H11NO2S HL CAS 29556-14-7 (2049)
N-(4-Tolyl)-2-thenoylhydroxamic acid; C4H3SCON(OH)C6H4CH3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 25°C | 70% | U | | K1=10.62 B2=20.02 | 1992DAc (80835) | 568 |

**********

C12H12O3 HL (6844)
3-Benzoylpenta-2,4-dione; CH3.CO.CH(CO.C6H5)CO.CH3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | KCl | 25°C | 0.20M | U | | K1=5.66 | 1992CMd (81164) | 569 |

**********

C12H15NO HL CAS 13074-74-3 (3383)
4-(4-Methylphenylimino)pentan-2-one; CH3.CO.CH2.C(:N.C6H4.CH3).CH3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 50% | U | | K1=10.9 B2=21.53 | 1961MJa (81423) | 570 |

**********

C12H15NO2 HL (4924)
2-Pyridoyl pivaloyl methane; C5H4N.CO.CH2.CO.C(CH3)3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 75% | U | | K1=12.36 B2=23.02 | 1972UDa (81428) | 571 |

Medium: 75% v/v dioxan, 0.01 M Me4NClO4

**********

C12H15NO2 HL (4925)
3-Pyridoyl pivaloyl methane; C5H4N.CO.CH2.CO.C(CH3)3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 75% | U | | K2=10.13 | 1972UDa (81433) | 572 |

Medium: 75% v/v dioxan, 0.01 M Me4NClO4

**********

C12H15NO2 HL CAS 59554-48-2 (3382)
4-(2-Methoxyphenylimino)pentan-2-one; CH3.CO.CH2.C(:N.C6H4.OCH3).CH3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 50% | U | | K1=10.90 B2=21.53 | 1961MJa (81435) | 573 |

**********

C12H15NO2 HL (4926)
4-Pyridoyl pivaloyl methane; C5H4N.CO.CH2.CO.C(CH3)3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 75% | U | | K2=9.51 | 1972UDa (81439) | 574 |

Medium: 75% v/v dioxan, 0.01 M Me4NClO4

**********

C12H15NO2 HL (248)
Acetoacet-2,4-dimethylanilide; CH3.CO.CH2.CO.CH2.NH.C6H3(CH3)2

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

Be++ gl diox/w 20°C 50% U T K1=8.61 B2=14.97 1969KSe (81444) 575
Medium: 50% dioxan, 0.025 M NaClO4
**********
C12H15NO2 HL (4921)
N-3,5-Dimethylphenylacetoacetamide; CH3.CO.CH2.CO.NH.C6H3(CH3)2
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 20°C 50% U K1=8.63 B2=15.03 1969KSe (81449) 576
Medium: 50% dioxan, 0.025 M NaClO4
**********
C12H15NO4 HL (4922)
1-Acetoacetamido-2,4-dimethoxybenzene; CH3.CO.CH2.CO.NH.C6H3(OCH3)2
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 20°C 50% U K1=8.68 B2=15.25 1969KSe (81469) 577
Medium: 50% dioxan, 0.025 M NaClO4
**********
C12H15NO4 HL (4923)
1-Acetoacetamido-2,5-dimethoxybenzene; CH3.CO.CH2.CO.NH.C6H3(OCH3)2
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 20°C 50% U K1=7.55 B2=14.04 1969KSe (81474) 578
Medium: 50% dioxan, 0.025 M NaClO4
**********
C12H16N6O3 HL His-His CAS 306-14-9 (846)
Histidyl-histidine; H2N.CH(CH2.C3H3N2).CO.NH.CH(CH2.C3H3N2).COOH
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl KCl 25°C 0.12M U T K1=5.75 B2=9.68 1970CAa (81657) 579
35 C: K1=4.14, K2=3.45; K1(45 C)=3.21
**********
C12H17NOS HL CAS 34282-27-4 (3393)
N-(2,6-Diethylphenyl)mercaptoacetamide; HS.CH2.CO.NH.C6H3(CH2.CH3)2
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 30°C 75% U K1=9.81 B2=19.01 1961MAe (81710) 580
**********
C12H20N2O8 H4L CAS 40623-42-5 (3388)
1,2-Diaminoethane-N,N'-diethanoic-N,N'-dipropanoic acid;
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl NaClO4 25°C 0.50M C K1=8.50 1995CDa (82158) 581
**********
C12H20N2O8 H4L CAS 2458-58-4 (922)

1,4-Diaminobutane-N,N,N',N'-tetraethanoic acid; (HOOC.CH2)2N.(CH2)4.N(CH2.COOH)2

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 0.50M | C | | K1=10.44<br>B(-3,1,1)=7.54<br>B(-4,1,1)=13.07<br>B(-6,3,1)=16.03 | 1996MDa (82214) | 582 |

B(p,q,r): pH+qBe+rH4L=Hp(Be)q(H4L)r.

**********

C12H30N3O9P3 H6L DOPHET CAS 123325-12-2 (227)
1,4,7-Tris(beta-dioxyphosphorylethyl)-1,4,7-triazacyclononane;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | KNO3 | 25°C | 1.0M | U | | K1=13.4<br>K(Be+HL)=9.4<br>K(Be+H2L)=7.7<br>K(Be+H3L)=7.1 | 1988MKa (84278) | 583 |

**********

C12H32N4O12P4 H8L DOTPH CAS 91987-74-5 (229)
1,4,7,10-Tetraazacyclododecane-N,N',N",N"'-tetramethylenephosphonic acid;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | KNO3 | 25°C | 1.00M | U | M | K(Be+CuL)=10.4<br>K(Be+CuHL)=9.8 | 1988MKb (84407) | 584 |

**********

C13H8O3 HL CAS 719-41-5 (3397)
1-Hydroxyxanthone (1-Hydroxy-9-xanthenone)

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | sp | alc/w | 25°C | 50% | U | | K1=8.72 | 1968GDb (84495) | 585 |

Medium: 50% EtOH, 0.1 M NaClO4

**********

C13H9FO2S HL CAS 43191-66-8 (6154)
1-(2'-Thienyl)-3"-fluoro-2"-hydroxyphenyl)-prop-1-one-2-ene;
C4H3S.CH:CH.CO.C6H3(OH)F

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 30°C | 0.10M | U | | K1=2.48 | 1989SHa (84511) | 586 |

**********

C13H9NO2 HL (3403)
2-(2'-Hydroxyphenyl)benzoxazole;

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

Be++ sp alc/w 20°C 50% U K1=8.27 1984GSb (84565) 587
---
Be++ gl alc/w 20°C 50% U K1=8.7 1959HOa (84566) 588
**********
C13H10NO2Br HL CAS 35021-82-0 (1819)
N-(4-Bromophenyl)benzohydroxamic acid; C6H5.CO.N(C6H4Br)OH
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 35°C 50% U K1=8.24 B2=15.13 1976GTa (84694) 589
**********
C13H10NO2Cl HL CAS 36016-24-7 (1818)
N-(4-Chlorophenyl)benzohydroxamic acid; C6H5.CO.N(C6H4Cl)OH
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 35°C 50% U K1=8.41 B2=15.39 1976GTa (84717) 590
**********
C13H10N2O HL CAS 5496-07-1 (3404)
2-(2'-Hydroxyphenyl)benzimidazole;
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl alc/w 20°C 50% U K1=8.5 1959HOa (84826) 591
**********
C13H10N2O4 HL CAS 67680-82-4 (1820)
N-(4-Nitrophenyl)benzohydroxamic acid; C6H5.CO.N(C6H4.NO2)OH
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 35°C 50% U K1=7.76 B2=14.24 1976GTa (84879) 592
**********
C13H10N2O4 HL CAS 2029-61-0 (178)
N-Phenyl-2-nitrobenzohydroxamic acid; O2N.C6H4.CO.N(C6H5).OH
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 25°C 50% U T K1=7.41 B2=13.41 1977VKa (84897) 593
At 35 C: K1=7.34, K2=5.84
**********
C13H10N2O4 HL CAS 17120-18-2 (220)
N-Phenyl-3-nitrobenzohydroxamic acid; O2N.C6H4.CO.N(C6H5).OH
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 25°C 50% U T K1=7.66 B2=13.81 1977VKa (84909) 594
At 35 C: K1=7.47, K2=6.00
**********
C13H10N2O6S H2L MordentYellow10 CAS 21542-82-5 (1390)
5-(4'-Sulfophenylazo)salicylic acid; HO3S.C6H4.N:N.C6H3(OH).COOH

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       sp  oth/un 20°C 0.50M U                      1968ANd (84937) 595
                                          K(BeOH+L)=6.7
********************************************************************************
C13H10O3               HL                     CAS 5910-23-6  (3399)
Benzoyl-2-furoylmethane; C6H5.CO.CH2.CO.C4H3O
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  diox/w 30°C  75%  U        K1=13.10  B2=25.17  1953UFe (85001) 596
********************************************************************************
C13H11NO2             H2L                     CAS 78-75-2  (6258)
3-(Salicylideneamino)phenol; HO.C6H4.CH:N.C6H4.OH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  alc/w  25°C  50%  U        K1=9.05   B2=14.15  1977DWa (85082) 597
********************************************************************************
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
--------------------------------------------------------------------------------
Be++       gl  diox/w 35°C  50%  U        K1=8.68   B2=15.83  1976GTa (85138) 598
--------------------------------------------------------------------------------
Be++       gl  diox/w 35°C  50%  U        K1=8.68   B2=15.83  1970GTb (85139) 599
Medium: 50% dioxan, 0.005 M
********************************************************************************
C13H12N2O2            H2L                     CAS 76525-00-3  (2637)
4-Methylbenzene-(1-azo-1')-3',4'-dihydroxybenzene;CH3C6H5.N:N.C6H3(OH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       sp  alc/w  20°C  10%  U                      1981BRb (85349) 600
                                          K(Be2O+L)=7.8
********************************************************************************
C13H12N4O               L    Diphenylcarbaz.  CAS 538-62-5  (1195)
Diphenylcarbazone; C6H5.NH.NH.CO.N:N.C6H5
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
Be++       gl  diox/w 25°C 0.10M U        K1=6.7    B2=12.60  1986MHb (85406) 601
********************************************************************************
C13H12O5               HL                     CAS 17426-76-5  (3401)
O,O-Dimethylpurpurogallin
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
```

Be++ gl diox/w 30°C 50% U K2=8.0 1954BFc (85486) 602
**********
C13H13O2Br HL (6846)
3-Benzoyl-5-bromohexa-5-ene-2-one; CH2=CBr.CH2.CH(CO.CH3)CO.C6H5
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl KCl 25°C 0.20M U K1=5.63 1992CMd (85536) 603
**********
C13H13O2Cl HL (6842)
3-Benzoyl-5-chlorohex-5-ene-2-one; CH2=CCl.CH2.CH(CO.CH3)CO.C6H5
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl KCl 25°C 0.20M U K1=5.67 1992CMd (85544) 604
**********
C13H14N3O5P H2L CAS 80767-75-5 (1467)
2-Hydroxy-4-nitrophenyl-N-(2-pyridylmethyl)aminemethylphosphinic acid;
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl NaClO4 20°C 0.10M U 1985SIb (85639) 605
K(Be+HL)=5.20
**********
C13H14N3O5P H2L CAS 80767-76-6 (1468)
2-Hydroxy-4-nitrophenyl-N-(3-pyridylmethyl)aminemethylphosphinic acid;
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl NaClO4 20°C 0.10M U 1985SIb (85652) 606
K(Be+HL)=5.15
**********
C13H15NO4 HL CAS 35104-87-2 (4997)
2-Nitrobenzoyl pivaloyl methane; O2N.C6H4.CO.CH2.CO.C(CH3)3
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 30°C 75% U K2=8.60 1972UDa (85714) 607
Medium: 75% v/v dioxan, 0.01 M Me4NClO4
**********
C13H15NO4 HL (4996)
4-Ethoxycarbonylacetoacetanilide; CH3.CH2.O.CO.C6H4.NH.CO.CH2.CO.CH3
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 25°C 50% U K1=7.90 B2=14.38 1972HHa (85716) 608
**********
C13H15NO4 HL CAS 18362-53-3 (4998)
4-Nitrobenzoyl pivaloyl methane; O2N.C6H4.CO.CH2.CO.C(CH3)3
---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 75% | U | | K2=9.24 | 1972UDa (85721) | 609 |

Medium: 75% v/v dioxan, 0.01 M Me4NClO4

**********

C13H15N2O3P H2L CAS 80767-72-2 (1460)
2-Hydroxyphenyl-(N-2-pyridylmethylamino)methylphosphinic acid;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 20°C | 0.10M | U | | | 1985SIa (85779) | 610 |
| | | | | | | | K(Be+HL)=5.10 | | |

**********

C13H15N2O3P H2L CAS 80767-73-3 (1461)
2-Hydroxyphenyl-(N-3-pyridylmethylamino)methylphosphinic acid;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 20°C | 0.10M | U | | | 1985SIa (85792) | 611 |
| | | | | | | | K(Be+HL)=5.15 | | |

**********

C13H15N2O3P H2L CAS 80767-74-4 (1462)
2-Hydroxyphenyl-(N-4-pyridylmethylamino)methylphosphinic acid;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 20°C | 0.10M | U | | | 1985SIa (85805) | 612 |
| | | | | | | | K(Be+HL)=5.15 | | |

**********

C13H15N2O4P H3L CAS 80767-78-8 (1463)
2-Hydroxyphenyl-(N-2-pyridylmethylamino)methylphosphonic acid;
C6H4(OH)CH(PO3H2).NH.CH2.C5H4N

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 20°C | 0.10M | U | | K1=10.10 | 1985SIa (85818) | 613 |
| | | | | | | | K(Be+HL)=7.90 | | |

**********

C13H15N2O4P H3L CAS 85946-85-6 (1464)
2-Hydroxyphenyl-(N-3-pyridylmethylamino)methylphosphonic acid;
C6H4(OH)CH(PO3H2).NH.CH2.C5H4N

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 20°C | 0.10M | U | | K1=10.20 | 1985SIa (85831) | 614 |
| | | | | | | | K(Be+HL)=7.95 | | |

**********

C13H15N2O4P H3L CAS 85946-86-7 (1465)
2-Hydroxyphenyl-(N-4-pyridylmethylamino)methylphosphonic acid;
C6H4(OH)CH(PO3H2).NH.CH2.C5H4N

```
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Be++       gl  NaClO4 20°C 0.10M U        K1=10.25       1985SIa (85844) 615
                                         K(Be+HL)=8.00
*******************************************************************************
C13H15O2Br             HL                     CAS 41070-38-6  (4994)
2-Bromobenzoyl pivaloyl methane; Br.C6H4.CO.CH2.CO.C(CH3)3
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Be++       gl  diox/w 30°C  75%  U        K2=9.46        1972UDa (85918) 616
Medium: 75% v/v dioxan, 0.01 M Me4NClO4
*******************************************************************************
C13H15O2Br             HL                     CAS 41070-33-1  (4995)
4-Bromobenzoyl pivaloyl methane; Br.C6H4.CO.CH2.CO.C(CH3)3
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Be++       gl  diox/w 30°C  75%  U        K2=10.28       1972UDa (85923) 617
Medium: 75% v/v dioxan, 0.01 M Me4NClO4
*******************************************************************************
C13H15O2Cl             HL                     CAS 41070-37-5  (4992)
2-Chlorobenzoyl pivaloyl methane; Cl.C6H4.CO.CH2.CO.C(CH3)3
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Be++       gl  diox/w 30°C  75%  U        K2=9.46        1972UDa (85928) 618
Medium: 75% v/v dioxan, 0.01 M Me4NClO4
*******************************************************************************
C13H15O2Cl             HL                     CAS 41070-30-8  (4993)
4-Chlorobenzoyl pivaloyl methane; Cl.C6H4.CO.CH2.CO.C(CH3)3
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Be++       gl  diox/w 30°C  75%  U        K2=10.37       1972UDa (85933) 619
Medium: 75% v/v dioxan, 0.01 M Me4NClO4
*******************************************************************************
C13H16O2               HL    Mesitoylacetone  CAS 6450-57-3  (4010)
1-(2',4',6'-Trimethylphenyl)butane-1,3-dione;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Be++       gl  diox/w 30°C  75%  U        K1=11.02  B2=21.07  1965UFa (85959) 620
*******************************************************************************
C13H16O2               HL                     CAS 13988-67-5  (4973)
Benzoyl pivaloyl methane; C6H5.CO.CH2.CO.C(CH3)3
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
```

Be++ gl diox/w 30°C 75% U K2=10.84 1972UDa (85964) 621
Medium: 75% v/v dioxan, 0.01 M Me4NClO4
**********
C13H17NO HL (3412)
4-(2,6-Dimethylphenylimino)pentan-2-one;
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 30°C 50% U K1=9.98 B2=20.28 1961MJa (85967) 622
**********
C13H20NO4P H3L (1471)
2-Hydroxyphenyl-N-(cyclohexylamino)methylphosphonic acid;
C6H4(OH)CH(PO3H2).NH.C6H11
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl NaClO4 20°C 0.10M U 1985SIb (86089) 623
K(Be+HL)=7.80
**********
C13H22O2 HL CAS 41070-22-8 (4974)
Hexahydrobenzoyl pivaloyl methane; C6H11.CO.CH2.CO.C(CH3)3
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 30°C 75% U K1=11.66 1972UDa (86374) 624
Medium: 75% v/v dioxan, 0.01 M Me4NClO4
**********
C14H8O3 HL CAS 129-43-1 (2778)
1-Hydroxyanthraquinone;
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 30°C 75% U K1=12.01 B2=23.45 1960KFc (86628) 625
**********
C14H8O4 H2L CAS 117-10-8 (3425)
1,8-Dihydroxyanthraquinone;
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 30°C 75% U K2=11.44 1960KFc (86675) 626
**********
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
---
Be++ gl KNO3 20°C 0.10M U K1=10.96 1967BZa (86717) 627
**********
C14H9NO2 HL CAS 641-63-4 (4038)
2-(2'-Pyridyl)indan-1,3-dione;

---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 30°C 75% U K1=10.96 B2=21.71 1964CMb (86788) 628
**********
C14H10NO2F HL CAS 87221-43-0 (6155)
1-(2'-Pyridyl)-3-(3-fluoro-2-hydroxyphenyl)-prop-1-one-2-ene;
C5H4N.CH:CH.CO.C6H3(OH)F
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl NaClO4 30°C 0.10M U K1=2.40 1989SHa (86881) 629
**********
C14H12N2O2 HL CAS 63213-04-7 (4043)
3-Acetyl-4-hydroxyazobenzene; CH3.CO.C6H3(OH).N:N.C6H5
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 30°C 75% U K1=9.95 B2=18.51 1967UDa (87168) 630
**********
C14H12N2O3 H2L CAS 4870-46-6 (3432)
2-Hydroxy-5-methyl-2'-carboxy-azobenzene; HO.C6H3(CH3).N:N.C6H4.COOH
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 30°C 75% U 1957SFb (87211) 631
K(Be+H2L=BeL+2H)=-3.8
**********
C14H12N2O4 HL (179)
N-3-Tolyl-3-nitrobenzohydroxamic acid; O2N.C6H4.CO.N(C6H4.CH3).OH
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 25°C 50% U T K1=7.34 B2=13.19 1977VKa (87259) 632
At 35 C: K1=7.22, K2=5.72
**********
C14H12N2O4 HL CAS 85407-74-5 (180)
N-4-Tolyl-2-nitrobenzohydroxamic acid; O2N.C6H4.CO.N(C6H4.CH3).OH
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 25°C 50% U T K1=7.89 B2=14.28 1977VKa (87272) 633
At 35 C: K1=7.69, K2=6.17
**********
C14H12N2O4 HL (221)
N-4-Tolyl-3-nitrobenzohydroxamic acid; O2N.C6H4.CO.N(C6H4.CH3).OH
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 25°C 50% U T K1=7.97 B2=14.42 1977VKa (87285) 634

At 35 C: K1=7.61, K2=6.10

**********

C14H13NO2 HL CAS 1503-92-0 (1817)

N-(4-Tolyl)benzohydroxamic acid; C6H5.CO.N(C6H4.CH3).OH

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 35°C | 50% | U | | K1=8.85 | B2=16.31 | 1976GTa (87442) | 635 |

**********

C14H13NO2 HL CAS 889-29-2 (6259)

N-Salicylidene-3-methoxyaniline; HO.C6H4.CH:N.C6H4.OCH3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | alc/w | 25°C | 50% | U | | K1=6.80 | B2=12.35 | 1977DWa (87525) | 636 |

**********

C14H13NO3 HL CAS 68221-23-8 (1816)

N-(4-Methoxyphenyl)benzohydroxamic acid; C6H5.CO.N(C6H4.OCH3).OH

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 35°C | 50% | U | | K1=9.05 | B2=17.08 | 1976GTa (87554) | 637 |

**********

C14H15N2O8Cl H4L (1903)

4-Chloro-1,2-diaminobenzene-N,N,N',N'-tetraethanoic acid;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 0.50M | U | | K1=5.79 | 1986MFa (87747) | 638 |
| | | | | | | | K(Be+HL)=3.59 | | |
| | | | | | | | K(BeL+H)=3.62 | | |

**********

C14H16NO3P H2L CAS 25881-35-0 (1469)

Phenyl-N-(benzylamino)methylphosphonic acid; C6H5.CH(PO3H2).NH.CH2.C6H5

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 20°C | 0.10M | U | | K1=8.00 | 1985SIb (87808) | 639 |

**********

C14H16NO4P H3L CAS 61146-25-6 (1470)

2-Hydroxyphenyl-N-(benzylamino)methylphosphonic acid; C6H4(OH)CH(PO3H2).NH.CH2.C6H5

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 20°C | 0.10M | U | | | 1985SIb (87821) | 640 |
| | | | | | | | K(Be+HL)=7.95 | | |

**********

C14H16N2O8 H4L CAS 40774-59-2 (1901)

1,2-Diaminobenzene-N,N,N',N'-tetraethanoic acid; C6H4(N(CH2.COOH)2)2

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 1.00M | C | H | K1=6.48 | 1992NSa | (87944) 641 |

By calorimetry: DH(K1)=45.5 kJ mol-1, DS=277 J K-1 mol-1

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 1.0M | U | | K1=6.48<br>K(BeL+H)=3.48 | 1988NTa | (87945) 642 |
| Be++ | gl | NaClO4 | 25°C | 0.50M | U | | K1=6.51<br>K(Be+HL)=3.37<br>K(BeL+H)=3.28 | 1986MFa | (87946) 643 |

**********

C14H17N2O4P H3L (1472)

2-Hydroxyphenyl-N-(2-(2'-pyridyl)ethylamino)methylphosphonic acid;C6H4(OH)CH(PO3H2)NHCH2CH2C5H4N

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 20°C | 0.10M | U | | K(Be+HL)=7.90 | 1985SIb | (88041) 644 |

**********

C14H18O2 HL CAS 41070-28-4 (5035)

2-Toluoyl pivaloyl methane; CH3.C6H4.CO.CH2.CO.C(CH3)3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 75% | U | | K2=10.40 | 1972UDa | (88125) 645 |

Medium: 75% v/v dioxan, 0.01 M Me4NClO4

**********

C14H18O2 HL CAS 41070-24-0 (5036)

4-Toluoyl pivaloyl methane; CH3.C6H4.CO.CH2.CO.C(CH3)3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 75% | U | | K2=10.83 | 1972UDa | (88130) 646 |

Medium: 75% v/v dioxan, 0.01 M Me4NClO4

**********

C14H18O3 HL CAS 41070-25-1 (5037)

2-Anisoyl pivaloyl methane; CH3O.C6H4.CO.CH2.CO.C(CH3)3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 75% | U | | K2=10.79 | 1972UDa | (88135) 647 |

Medium: 75% v/v dioxan, 0.01 M Me4NClO4

**********

C14H18O3 HL CAS 41070-23-9 (5038)

4-Anisoyl pivaloyl methane; CH3O.C6H4.CO.CH2.CO.C(CH3)3

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

Be++ gl diox/w 30°C 75% U K2=11.0 1972UDa (88140) 648
Medium: 75% v/v dioxan, 0.01 M Me4NClO4
**********
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
---
Be++ gl NaClO4 25°C 0.50M C K1=7.83 1995CDa (88591) 649
---
Be++ dis NaClO4 20°C 0.10M U K1=10.81 1963STc (88592) 650
**********
C14H24N2O8 H4L EDTP (2936)
Diaminoethane-N,N,N',N'-tetrapropanoic acid; (HOOC.CH2CH2)2N.CH2CH2.N(CH2CH2.COOH)2
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl NaClO4 25°C 0.50M C K1=8.45 1995CDa (89677) 651
**********
C15H11NO2 HL CAS 55022-23-6 (4061)
2-(6'-Methyl-2'-pyridyl)indan-1,3-dione;
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 30°C 75% U K1=11.89 B2=23.50 1964CMb (91062) 652
**********
C15H12OS HL (1261)
mono-Thiodibenzoylmethane; C6H5.CO.CH2.CS.C6H5
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 30°C 75% U K1=9.38 B2=17.35 1969UTa (91487) 653
Medium: 75% dioxan, 0.01 M Me4NI
---
Be++ gl diox/w 30°C 75% U K1=9.00 B2=17.86 1966USa (91488) 654
**********
C15H12O2 HL Diphenylacac CAS 120-46-7 (362)
1,3-Diphenylpropane-1,3-dione, Dibenzoylmethane; C6H5.CO.CH2.CO.C6H5
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 20°C 17% C K1=13.16 B2=25.60 1976JWa (91539) 655
---
Be++ dis R4N.X 18°C 1.0M U K1=11.11 B2=18.78 1968RSe (91540) 656
Medium: NH4Cl
---
Be++ gl diox/w 30°C 75% U K1=13.62 B2=26.03 1953UFe (91541) 657
**********
C15H12O2 HL CAS 1214-47-7 (951)
3-Phenyl-1-(2'-hydroxyphenyl)-2-propen-1-one, 2'-hydroxychalkone;

C6H5.CH:CH.CO.C6H4.OH

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 60% | U | | K1=10.48 B2=18.80 | 1975KKc (91577) | 658 |

C15H12O3 H2L CAS 1469-94-9 (3445)
2-Hydroxydibenzoylmethane; HO.C6H4.CO.CH2.CO.C6H5

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 75% | U | | K1=10.84 | 1955HOa (91605) | 659 |

C15H16N4O L CAS 15933-19-4 (6218)
Di(2-methylphenyl)carbazone;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 25°C | 50% | U | | K1=6.9 B2=13.00 | 1986MHb (91937) | 660 |

Data also for Di-(4-methyl), Di-(2,5-dimethyl), Di-(4-nitro) etc. analogues

C15H18N2O8 H4L CAS 101455-18-9 (1902)
1-Methyl-3,4-diaminobenzene-N,N,N',N'-tetraethanoic acid;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 0.50M | U | | K1=6.88 | 1986MFa (92082) | 661 |
| | | | | | | | K(Be+HL)=3.74 | | |
| | | | | | | | K(BeL+H)=3.64 | | |

C15H26N2O8 H4L 1,3-PDTP CAS 187024-04-0 (8439)
1,3-Diaminopropane-N,N,N'N'-tetrapropanoic acid;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaClO4 | 25°C | 0.50M | C | | K1=11.07 | 1996MDa (92410) | 662 |
| | | | | | | | B(-1,1,1)=1.33 | | |
| | | | | | | | B(-2,1,1)=5.13 | | |
| | | | | | | | B(-3,1,1)=9.70 | | |
| | | | | | | | B(-4,1,1)=15.80 | | |

B(-5,3,1)=13.45, B(-6,3,1)=19.02. B(p,q,r): pH+qBe+rH4L=Hp(Be)q(H4L)r.

C16H13N2O10AsS2 H5L Thorin I CAS 3688-92-4 (2609)
1-((2-Arsonophenyl)azo)-2-hydroxy-3,6-naphthalyldisulfonic acid;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | oth/un | 30°C | ? | U | | K1=15.68 | 1964PCa (93186) | 663 |

C16H15NO HL CAS 18594-93-9 (3468)

3-Phenylimino-1-phenylbutan-1-one; C6H5.CO.CH2.C(:N.C6H5).CH3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 50% | U | | K1=10.97 B2=21.84 | 1961MJa (93602) | 664 |

**********

C16H15NO7 H4L (4082)
N-(3-Carboxy-2-hydroxynaphthy-1-ylmethyl)iminodiethanoic acid;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | sp | NaClO4 | 20°C | 0.10M | U | | B(BeH2L)=33.1<br>B(BeHL)=27.2 | 1968BWa (93630) | 665 |

**********

C16H17N3O2 HL (4086)
5-(4'-Dimethylaminophenylazo)-2-acetylphenol;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 75% | U | | K1=11.84 B2=22.33 | 1967UDa (93740) | 666 |

**********

C16H17N3O2 HL (4085)
6-(4'-Dimethylaminophenylazo)-2-acetylphenol;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 75% | U | | K1=12.09 B2=22.73 | 1967UDa (93744) | 667 |

**********

C16H21N3 L Pyribenzamine (3460)
2-(N-Benzyl-N-(2-dimethylaminoethyl)amino)pyridine;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | KCl | 45°C | 0.12M | U | T | K1=5.05 B2=9.56 | 1969CAc (94113) | 668 |

0 C: K1=5.83,K2=4.63; 15 C: K1=5.76,K2=4.59;
25 C: K1=5.56,K2=4.55; 35 C: K1=5.28,K2=4.53

**********

C16H22O2 HL CAS 41070-31-9 (5147)
2,4,6-Trimethylbenzoyl pivaloyl methane; (CH3)3.C6H2.CO.CH2.CO.C(CH3)3

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 75% | U | | K2=9.94 | 1972UDa (94239) | 669 |

Medium: 75% v/v dioxan, 0.01 M Me4NClO4

**********

C16H25NO4 L (7444)
1-Aza-4,7,10,13-tetraoxa-1-phenyl-cyclopentadecane;

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

```
-------------------------------------------------------------------------------
Be++       sp  non-aq  RT  100%  C        K1=2.70        2001AVa (94514) 670
Method: spectrophotometric titration. Medium: acetonitrile.
*******************************************************************************
C16H28N2O8           H4L    1,4-BDTP         CAS 187024-05-1  (8440)
1,4-Diaminobutane-N,N,N',N'-tetrapropanoic acid;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Be++       gl  NaClO4 25°C 0.50M C        K1=12.25       1996MDa (94778) 671
                                         B(-1,1,1)=1.36
                                         B(-2,1,1)=5.33
                                         B(-3,1,1)=9.73
                                         B(-4,1,1)=16.04
B(-5,3,1)=14.04. B(p,q,r): pH+qBe+rH4L=Hp(Be)q(H4L)r.
*******************************************************************************
C16H28N4O8           H4L    DOTA             CAS 60239-18-1  (1017)
1,4,7,10-Tetraazacyclododecane-1,4,7,10-tetraethanoic acid;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Be++       gl  R4N.X  25°C 0.10M C        K1=13.64       1982DSa (94882) 672
                                         K(Be+HL)=7.68
                                         K(Be+H2L)=2.26
*******************************************************************************
C16H40N4O12P4        H8L                    CAS 41007-47-0  (2070)
1,4,7,10-Tetraethylphosphonic acid-1,4,7,10-tetraazacyclododecane;
C8H16N4(CH2CH2.PO(OH)2)4
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Be++       gl  KNO3   25°C 1.00M U        K1=15.9        1989PBb (95637) 673
                                         K(Be+HL)=14.0
                                         K(Be+H2L)=10.9
                                         K(Be+H3L)=10.5
*******************************************************************************
C17H14O3              HL                      (6843)
1,1-Dibenzoylpropan-2-one; CH3.CO.CH(CO.C6H5)2
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Be++       gl  KCl    25°C 0.20M U        K1=5.68        1992CMd (95965) 674
*******************************************************************************
C17H16O6              HL                      (4111)
2-Hydroxy-2',4',4-trimethoxydibenzoyl; HO.C6H4.CO.CO.C6H2(OCH3)3
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
Be++       gl  NaClO4   ?  0.10M U        K1=7.45   B2=14.00  1963DSa (96182) 675
*******************************************************************************
```

C17H18O2 HL (5207)
alpha-Naphthoyl pivaloyl methane;
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 30°C 75% U K2=10.36 1972UDa (96235) 676
Medium: 75% v/v dioxan, 0.01 M Me4NClO4
**********
C17H18O2 HL (5208)
beta-Naphthoyl pivaloyl methane;
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 30°C 75% U K2=10.88 1972UDa (96240) 677
Medium: 75% v/v dioxan, 0.01 M Me4NClO4
**********
C17H19N3 L Antazoline CAS 91-75-8 (3486)
2-(N-(Benzyl)-N-phenylaminomethyl)-1,4,5H-1,3-diazole, antistine;
C3H5N2.CH2.N(C6H5)CH2.C6H5
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl KCl 45°C 0.12M U T K1=7.14 B2=13.15 1969CAc (96263) 678
0 C: K1=7.71, K2=6.48; 15 C: K1=7.55, K2=6.31;
25 C: K1=7.44, K2=6.20; 35 C: K1=7.20, K2=6.08
**********
C17H20O2Fe HL (5222)
Ferrocenoyl pivaloyl methane;
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl diox/w 30°C 75% U K2=11.13 1972UDa (96358) 679
Medium: 75% v/v dioxan, 0.01 M
**********
C17H21NO L Benadryl CAS 58-73-1 (3492)
N,N-Dimethyl-2-(diphenylmethoxy)ethylamine;
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
Be++ gl KCl 45°C 0.12M U T K1=5.55 B2=10.45 1969CAc (96370) 680
0 C: K1=6.43, K2=5.16; 15 C: K1=6.40, K2=5.09;
25 C: K1=6.30, K2=5.04; 35 C: K1=5.90, K2=4.95
**********
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
---
Be++ gl KNO3 25°C 0.10M C K1=13.36 1982DSa (96646) 681
K(Be+HL)=7.58

K(Be+H2L)=2.41

**********

C18H11NO2 HL CAS 83-08-9 (4126)
2-(2'-Quinolyl)indan-1,3-dione;

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 75% | U | | K1=11.78 | | 1964CMb (96841) | 682 |

**********

C18H18O2 HL CAS 6477-28-7 (4125)
3-Phenyl-1-(2',4',6'-trimethylphenyl)-propane-1,3-dione;

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 75% | U | | K1=11.79 | B2=22.91 | 1965UFa (97293) | 683 |

**********

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 |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | KNO3 | 25°C | 0.10M | C | | K1=13.38 | | 1982DSa (98194) | 684 |
| | | | | | | | K(Be+HL)=7.82 | | | |
| | | | | | | | K(Be+H2L)=2.47 | | | |

**********

C19H19N7O6 H3L Folic acid CAS 75708-92-8 (194)
Pteroylglutamic acid;

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | KNO3 | 30°C | 0.10M | U | I | K1=4.65 | B2=8.35 | 1970NDa (99284) | 685 |

I=0: K1=5.30, K2=4.05. I=0.01: K1=5.15, K2=3.90. I=0.05: K1=4.80, K2=3.70

**********

C20H14N2O11S3 H2L Hydroxynaphthol CAS 63451-35-4 (2835)
Hydroxynaphthol blue, 1-(2-Hydroxy-4-sulfo-1-naphthylazo)-2-naphthol-3,

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | sp | none | 25°C | 0.0 | U | | | 1978BRb (99726) | 686 |
| | | | | | | | K1eff=3.63 | | |

Keff at pH 10

**********

C21H17NO HL CAS 20964-94-7 (3512)
1-(Phenylimino)-1,3-diphenylpropan-3-one; C6H5.N:C(C6H5).CH2.CO.C6H5

---

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 50% | U | | K1=10.55 | B2=20.89 | 1961MJa (101073) | 687 |

**********

C21H24O2 HL (4149)

1,3-Bis(2',4',6'-trimethylphenyl)propane-1,3-dione  (dimesitoylmethane)

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | diox/w | 30°C | 75% | U | | K1=10.66 | B2=20.40 | 1965UFa (101256) | 688 |

C22H14O9  H5L  CAS 4431-00-9  (3513)
Aurintricarboxylic acid;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | sp | oth/un | 25°C | ? | U | | K1=4.54 | 1958MDa (101492) | 689 |
| Be++ | oth | oth/un | 25°C | 0.16M | U | | K1=5.38 | 1954SLc (101493) | 690 |

C22H24N2O8  H2L  Tetracycline  CAS 60-54-8  (2201)
Tetracycline;

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaNO3 | 25°C | 0.10M | C | M | K1=9.50 | 1989GAb (101810) | 691 |
| | | | | | | | K(BeL+Gly)=3.80 | | |

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

| Metal | Mtd | Medium | Temp | Conc | Cal | Flags | Lg K values | | Reference | ExptNo |
|---|---|---|---|---|---|---|---|---|---|---|
| Be++ | gl | NaCl | 25°C | 0.10M | M | I | K1=4.79 | B2=7.19 | 1986HSc (102542) | 692 |
| In 40% (v/v) dioxan/water, K1=5; B2=8 | | | | | | | | | | |
| Be++ | sp | NaClO4 | 25°C | 0.10M | U | | | | 1968BSb (102543) | 693 |
| | | | | | | | K(Be+HL)=4.66 | | | |
| | | | | | | | B(Be2L)=15.8 | | | |
| Be++ | sp | NaClO4 | 20°C | 0.10M | U | | | | 1967SKa (102544) | 694 |
| | | | | | | | K(Be+H2L=BeHL+H)=0.05 | | | |
| | | | | | | | B(Be2L2)=26.8 | | | |
| Be++ | sp | NaClO4 | 30°C | 0.10M | U | | | | 1963SDe (102545) | 695 |
| | | | | | | | K1eff=4.4 (pH 6.0) | | | |
| Be++ | sp | NaClO4 | 30°C | 0.10M | U | | K1=4.6 | | 1963SDh (102546) | 696 |
| Be++ | sp | oth/un | 20°C | 0.10M | U | | | | 1962AMc (102547) | 697 |
| | | | | | | | K(?)=6.2 | | | |

C23H18O9S  H4L  Eriochrome cyan  CAS 3564-18-9  (433)
4'-Hydroxy-3,3'-dimethyl-2''-sulfofuchsone-5,5'-dicarboxylic acid;

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       sp  NaClO4 20°C 0.10M U                         1967SKa (102627) 698
                                        K(Be+H2L=BeHL+H)=0.02
                                        B(Be2L2)=28.3
*************************************************************************
C23H30N2O4              L                    CAS 361454-16-2  (8960)
N-(Phenylmethylene)-4-(1,4,7,10-tetraoxa-13-azacyclopentadec-13-yl)benzamine;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       sp  non-aq  RT  100%  C        K1=2.70          2001AVa (102749) 699
Method: spectrophotometric titration. Medium: acetonitrile.
*************************************************************************
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
-------------------------------------------------------------------------
Be++       sp  NaClO4 25°C 0.10M C                         1999BBl (103802) 700
                                        K(Be+2H+HL=BeH3L)=27.63
                                        K(Be+H+HL=BeH2L)=22.165
                                        K(3Be+HL=Be3(OH)3(HL)+3H)=5.85
*************************************************************************
C29H18O6              H3L                     CAS 5715-76-4  (5356)
Phenoxydinaphthofuchsonedicarboxylic acid  (Naphthochrome Green G);
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       sp  oth/un 20°C 0.10M U                         1969AMa (105071) 701
                                        K(Be+HL)=6.25
                                        K(BeOH+L)=5.42
*************************************************************************
C30H18N6O21S6         H9L    Calcichrome        (4173)
Cyclo-tris-7-(1-azo-8-hydroxynaphthalene-3,6-disulfonic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       sp  NaClO4 20°C 0.10M C                         1981EIe (105179) 702
                                        K(Be+H2L)=6.82
                                        K(Be+H3L=Be(OH)H2L+H)=-0.30
*************************************************************************
C31H32N2O13S          H6L    Xylenol orange   CAS 63721-85-5  (432)
5,5'-Bis-N,N-bis(carboxymethyl)aminomethyl-4'-hydroxy-3,3'-dimethylfuchsone-2"-sulf
onic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
Be++       sp  NaClO4 25°C 0.10M U                         1965OTa (105455) 703
                                        K(?)=3.92
```

**********

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 |
|---|---|---|---|---|---|---|---|---|---|
| Be++ | sp | oth/un | ? | ? | U | | 1971ANb (106587) | | 704 |
| | | | | | | | K(Be+H3L)(?)=4.32 | | |

REFERENCES


2002CGa F Cecconi,C Ghilardi,A Ienco,S Midollini; Inorg.Chem.,41,4006 (2002)
2001AVa L Antonov,M Vladimirova,M Mitewa; J.Inclusion Phenom.,40,23 (2001)
2001BCd P Barbaro,F Cecconi,S Midollini; Inorg.Chem.,40,2725 (2001)
2001MDa A Mederos,S Dominguez,E Chinea; J.Coord.Chem.,53,191 (2001)
1999ACa L Alderighi,F Cecconi,A Vacca; Polyhedron,18,3305 (1999)
1999AVa L Alderighi,A Vacca,F Cecconi; Inorg.Chim.Acta,285,39 (1999)
1999BBl M Birus,A Budimir,M Gabricevic; J.Inorg.Biochem.,75,85 (1999)
1999VCa A Valle,E Chinea,S Dominguez,A Mederos; Polyhedron,18,3253 (1999)
1998ABe L Alderighi,A Bianchi,A Vacca; Eur.J.Inorg.Chem.,1209 (1998)
1997BCa P Barbaro,F Cecconi,C Ghilardi; Inorg.Chim.Acta,262,187 (1997)
1997CDc E Chinea,S Dominguez,A Mederos,F Brito; Main Group Metal Chem.,20,11 (1997)
1997CIa L Ciavatta,M Iuliano,R Porta; Ann.Chim.(Rome),87,375 (1997)
1997RPc G Rao,R Panganoori,K Ram; J.Indian Chem.Soc.,74,94 (1997)
1996KOb V Kolhe; J.Indian Chem.Soc.,73,567 (1996)
1996MDa A Mederos,S Dominguez,E Chinea; Quimica Analitica(Barcelona),15,S21 (1996)
1996PLa J Piispanen,L Lajunen; Acta Chem.Scand.,50,1074 (1996)
1995CDa E Chinea,S Dominguez,A Mederos et al; Inorg.Chem.,34,1579 (1995)
1995KSb M Koide,H Suzuki,S Ishiguro; J.Chem.Soc.,Faraday Trans.,91,3851 (1995)
1995MWb D Michalska,W Wojciechowski; J.Coord.Chem.,34,179 (1995)
1995RRe D Rao,G Reddy,E Ramaiah,K Ram; Acta Ciencia Indica, Chem.,21,111 (1995)
1992BKf G Boopathy,P Kamalakannan,D Venkappayya; J.Indian Chem.Soc.,69,326 (1992)
1992CMd F Chyragov,O Mukhamed; Zh.Neorg.Khim.,37,(12)2758 (1992)
1992DAc N Dallali,Y Agrawal; J.Indian Chem.Soc.,69,219 (1992)
1992EYa D Evans,C Wong; J.Chem.Soc.,Dalton Trans.,2009 (1992)
1992NSa N Nakasuka,M Sawaragi,K Matsumura,M Tana; Bull.Chem.Soc.Jpn.,65,1722 (1992)
1991AGa R Anttila,I Grenthe,J Glaser et al; Acta Chem.Scand.,45,523 (1991)
1991IIa M Inamo,K Ishihara,S Funahashi et al; Inorg.Chem.,30,1580 (1991)
1990HWa R Hancock,P Wade,M Ngwenya; Inorg.Chem.,29,1968 (1990)
1990TSb B Tiwari,S Singh,R Singh et al; Bull.Soc.Chim.Fr.,127,507 (1990)
1989GAb M Ghandour,H Azab,A Hassan et al; Polyhedron,8,189 (1989)
1989MMe A Mederos,E Medina,J Colomer; Polyhedron,8,2017 (1989)
1989MMf S Mishra,A Mishra,K Yadava; Rev.Roumaine Chim.,34,1877 (1989)
1989PBb Y Polykarpov,F Belski et al; Izv.Akad.Nauk(USSR),9,2112 (1989)
1989SHa G Sharma; Indian J.Chem.,28A,340 (1989)
1988CVa P Chakrawarti,B Vijayvargiya,H Sharma; J.Indian Chem.Soc.,65,314 (1988)

1988JBa M Jaber,F Bertin,G David; Bull.Soc.Chim.Fr.,I,470 (1988)
1988MKa T Medved,M Kabachnik et al; Izv.Akad.Nauk(USSR),9,2107 (1988)
1988MKb T Medved,M Kabachnik et al; Izv.Akad.Nauk(USSR),9,2103 (1988)
1988MOa J Maslowska,A Owczarek; Pol.J.Chem.,62,75 (1988)
1988NTa N Nakasuka,K Takahashi,M Tanaka; Anal.Chim.Acta,207,361 (1988)
1988PGc S Prasad,J Ghosh; J.Indian Chem.Soc.,65,831 (1988)
1987BGa J Bruno,I Grenthe,M Sandstrom et al; J.Chem.Soc.,Dalton Trans.,2439 (1987)
1987BGb J Bruno,I Grenthe,M Munoz; J.Chem.Soc.,Dalton Trans.,2445 (1987)
1987BRb J Bruno; J.Chem.Soc.,Dalton Trans.,2431 (1987)
1987HAb P Hakkinen; Finn.Chem.Lett.,14,15 (1987)
1987HLa P Hakkinen,H Lajunen; Finn.Chem.Lett.,14,7 (1987)
1987MDa A Mederos,S Dominguez et al; Polyhedron,6,303 (1987)
1987MDb A Mederos,S Dominguez,A Medina et al; Polyhedron,6,1365 (1987)
1987MMa M Maeda,Y Murata,K Ito; J.Chem.Soc.,Dalton Trans.,1853 (1987)
1986CVb P Chakrawarti,B Vijayvargiya,H Sharma; J.Indian Chem.Soc.,63,1036 (1986)
1986HAc P Hakkinen; Finn.Chem.Lett.,13,53 (1986)
1986HSc K Hayashi,Y Sasaki,S Tagashira et al; Anal.Chem.(USA),58,1444 (1986)
1986MFa A Mederos,J Felipe,F Brito et al; J.Coord.Chem.,14,277 (1986)
1986MHb K Math,S Hiremath,T Aminabhavi; Indian J.Chem.,25A,603 (1986)
1986MSc A Misra,K Srinivasulu; J.Indian Chem.Soc.,63,519 (1986)
1986SRb S Singh,B Rani,K Yadava; Chemica Scripta,26,363 (1986)
1986SSe S Sharma,K Saxena,R Saxena; J.Indian Chem.Soc.,63,479 (1986)
1985SIa J Siepak; Pol.J.Chem.,59,651 (1985)
1985SIb J Siepak; Pol.J.Chem.,59,955 (1985)
1985SRa S Singh,B Radna Pani,M Vyas,K Yadava; Pol.J.Chem.,59,1021 (1985)
1984ABe S Abbasi; J.Indian Chem.Soc.,61,125 (1984)
1984GSb D Gladylovich,K Stolyarov; Zh.Neorg.Khim.,29,3057(1748) (1984)
1984HAd P Hakkinen; Finn.Chem.Lett.151 (1984)
1984IDa S Iftekhar,K Dubey; J.Indian Chem.Soc.,61,702 (1984)
1984KMa M Kabachnik,T Medved et al; Izv.Akad.Nauk(USSR),4,835 (1984)
1984SIa J Sircar; J.Chem.Eng.Data,29,141 (1984)
1983BEc P Brown,J Ellis,R Sylva; J.Chem.Soc.,Dalton Trans.,2001 (1983)
1983CVa P Chakrawarti,B Vijayvargiya,H Sharma; J.Indian Chem.Soc.,60,89 (1983)
1983MDa J Maslowska,A Dorabialski; Pol.J.Chem.,57,1089 (1983)
1983MOa J Maslowska,A Owczarek; Pol.J.Chem.,57,719 (1983)
1983MSd K Mandlik,C Saxena,P Khadikar; J.Indian Chem.Soc.,60,991 (1983)
1983PYa P Prasad,H Yadav,S Singh,P Yadava; J.Electrochem.Soc.India,32,377 (1983)
1983SHf D Shelke; J.Indian Chem.Soc.,60,631 (1983)
1982CVa P Chakrawarti,B Vijayvargiya; J.Indian Chem.Soc.,59,734 (1982)
1982DSa R Delgado,J da Silva; Talanta,29,815 (1982)
1982LAa L Lajunen; J.Indian Chem.Soc.,59,1238 (1982)
1982LKc L Lajunen,V Kopsa-Moilanen; Finn.Chem.Lett.6 (1982)
1982SLc J Stary,J Liljenzin; Pure & Appl.Chem.,54,2557 (1982)
1981BRb N Basargin,Y Rozovski et al; Zh.Neorg.Khim.,26,2042(1101) (1981)
1981CSb M Candida-Vaz, J.F da Silva; J.Inorg.Nucl.Chem.,43,1573 (1981)
1981CSc M Chattopadhyaya,R Singh; J.Indian Chem.Soc.,58,1203 (1981)
1981DSa S Dubey,A Singh,D Puri; J.Inorg.Nucl.Chem.,43,407 (1981)
1981EIe H Einaga,H Ishii; Talanta,28,799 (1981)
1981SGa H Stunzhos,I Govorov; Geokhim.,4,517 (1981)

1980BDe  B Bhuyan,S Dubey; J.Indian Chem.Soc.,57,560 (1980)
1980DTa  G Duc,G Thomas-David; Bull.Soc.Chim.Fr.,I,169 (1980)
1980SMa  A Samchuck,B Mitskevich; Geokhim.,9,1371 (1980)
1980VRa  N Voronezheva,Y Rudyak et al; Koord.Khim.,6,991 (1980)
1979DTb  G Duc,G Thomas-David; Bull.Soc.Chim.Fr.,I,163 (1979)
1979IOa  S Ishiguro,H Ohtaki; Bull.Chem.Soc.Jpn.,52,3198 (1979)
1979LAa  L Lajunen; Finn.Chem.Lett.45 (1979)
1979LKa  L Lajunen,A Kostama et al; Acta Chem.Scand.,A33,681 (1979)
1979LTc  L Lajunen,M Tikanmaki; Acta Univ.Oulu,A74,20s (1979)
1979SDc  A Singh,S Dubey et al; Indian J.Chem.,17A,623 (1979)
1978BRb  H Brittain; Anal.Chim.Acta,96,165 (1978)
1978GKa  B Gruenwald,W Knoche; J.Chem.Soc.,Dalton Trans.,1221 (1978)
1978JBc  M Jaber,F Bertin,G Thomas-David; Can.J.Chem.,56,777 (1978)
1978LAb  L Lajunen; Finn.Chem.Lett.129 (1978)
1978LKe  L Lajunen,M Karvo; Anal.Chim.Acta,97,423 (1978)
1978LTa  L Lajunen,M Tikanmaki; Finn.Chem.Lett.96 (1978)
1978MSa  B Mitskevich,A Sanichuk; Geokhim.,9,1419 (1978)
1978SDa  R Sharma,S Dhindsa,D Bhargava; Monatsh.Chem.,109,179 (1978)
1978SSa  R Srivastava,M Srivastava; J.Inorg.Nucl.Chem.,40,1439 (1978)
1977DBa  G Duc,F Bertin,G Thomas-David; Bull.Soc.Chim.Fr.,645 (1977)
1977DBb  G Duc,F Bertin,G Thomas-David; Bull.Soc.Chim.Fr.,196 (1977)
1977DWa  K Dubey,B Wazir; Indian J.Chem.,15A,58 (1977)
1977JKa  U Jain,V Kumari,R Sharma,G Chaturvedi; J.Chim.Phys.,74,1038 (1977)
1977SKb  G Soboleva,I Khodakovsky et al; Geokhim.,7,1013 (1977)
1977SLa  H Saarinen et al; Finn.Chem.Lett.66 (1977)
1977SVa  J da Silva,M Vaz; J.Inorg.Nucl.Chem.,39,613 (1977)
1977VKa  P Verma,P Khadikar,J Agrawal; J.Inorg.Nucl.Chem.,39,1847 (1977)
1976ABe  S Abbasi,B Bhat,R Singh; Indian J.Chem.,14B,718 (1976)
1976BIa  J Bishop; Anal.Chim.Acta,87,255 (1976)
1976DBb  G Duc,F Bertin,G Thomas-David; Bull.Soc.Chim.Fr.,414 (1976)
1976GKa  B Gruenwald,W Knoche,N Rees; J.Chem.Soc.,Dalton Trans.,2338 (1976)
1976GTa  K Gupta,S Tandon; Talanta,23,255 (1976)
1976JWa  Z Jablonski,T Wasag,S Millo; Rocz.Chem.50,1467 (1976)
1976LGa  K Lal,S Gupta; Indian J.Chem.,14A,260 (1976)
1976SKc  S Sandhu,J Kumaria,R Sandhu; Indian J.Chem.,14A,817 (1976)
1976SSc  R Sandhu,K Singh; Thermochim.Acta,17,325 (1976)
1976SSf  J Srivastava,M Srivastava; Indian J.Chem.,14A,818 (1976)
1975DBc  G Duc,F Bertin,G Thomas-David; Bull.Soc.Chim.Fr.,495 (1975)
1975DPb  K Dubey,M Puri; Rev.Chim.Minerale,12,255 (1975)
1975GSa  S Grewal,B Sekhon,S Chopra; Thermochim.Acta,11,315 (1975)
1975GSb  S Grewal,B Sekhon,B Pannu et al; Indian J.Chem.,13,623 (1975)
1975JBb  J Joshi,P Bhattacharya; Indian J.Chem.,13,88 (1975)
1975KKc  P Khadikar,S Kakkar,D Berge; Indian J.Chem.,13,844 (1975)
1975SSe  R Saxena,S Sheelwant; Monatsh.Chem.,106,1081 (1975)
1975TKb  H Tsukuda,T Kawai,M Maeda,H Ohtaki; Bull.Chem.Soc.Jpn.,48,691 (1975)
1975TRa  P Tedesco,V de Rumi; J.Inorg.Nucl.Chem.,37,1833 (1975)
1975VBb  J Votava,M Bartusek; Collec.Czech.Chem.Commun.,40,2050 (1975)
1975VGa  A Vanni,M Gennaro,G Ostacoli; J.Inorg.Nucl.Chem.,37,1443 (1975)
1974CSa  M Chattopadhyaya,R Singh; Anal.Chim.Acta,70,49 (1974)
1974DBa  G Duc,F Bertin,G Thomas-David; Bull.Soc.Chim.Fr.,793 (1974)

1974HEb J Helisch; Univ.Gottingen,(Diss) (1974)
1974KFa W Knoche,C Firth,D Hess; Adv.Mol.Relax.Proc.,6,1 (1974)
1974SRc H Saarinen,T Raikas,A Rauhala; Finn.Chem.Lett.104 (1974)
1974SRd H Saarinen,T Raikas,L Lajunen; Finn.Chem.Lett.109 (1974)
1974TGa P Tedesco,J Gonzalez-Quintana; J.Inorg.Nucl.Chem.,36,2628 (1974)
1974VGa A Vanni,M Gennaro; Ann.Chim.(Rome),64,397 (1974)
1973CGa L Ciavatta,M Grimaldi; Gazz.Chim.Ital.,103,731 (1973)
1973GBa P Govil,S Banerji; Analusis,2,215 (1973)
1972BTa F Bertin,G Thomas; Bull.Soc.Chim.Fr.,1665 (1972)
1972DTa G Duc,G Thomas; Bull.Soc.Chim.Fr.,4439 (1972)
1972HHa H Harries,R Hughes,T Smith; J.Inorg.Nucl.Chem.,34,1609 (1972)
1972MKb G Manoussakis,P Karayannidis et al; Chem.Chron.,1,14 (1972)
1972PIa K Pitzer; J.Chem.Soc.,Faraday Trans.II,68,101 (1972)
1972SSe M Singh,M Srivastava; J.Inorg.Nucl.Chem.,34,567;2067;2081 (1972)
1972UDa E Uhlemann,F Dietze; Z.Anorg.Allg.Chem.,393,215 (1972)
1971ANb L Anisimova; Sbornik.soobsch Dag.Univ.,Khim.,7,90 (1971)
1971BNa T Belyavskaya,I Nemirovskaya; Vestnik Moskov Univ.,12,745 (1971)
1971LSb P Lingaiah,E Sundaram; J.Indian Chem.Soc.,48,961 (1971)
1971MKc L Moiseeva,N Kuznetsova; Zh.Anal.Khim.,26,11,2090 (1971)
1971PTa T Pochkaeva,N Tamm et al; Zh.Neorg.Khim.,16,219(E:113) (1971)
1971SGb A Sevastyanov,I Gorodetskaya et al; Vestnik Moskov Univ.,3,328 (1971)
1971SKb T Sekine,Y Komatsu,M Sakairi; Bull.Chem.Soc.Jpn.,44,1480 (1971)
1971VMa D Vartak,K Menon; J.Inorg.Nucl.Chem.,33,1003 (1971)
1970BBc C Bamberger,J Botbol; J.Inorg.Nucl.Chem.,32,1569 (1970)
1970CAa I Chawla,A Andrews; J.Inorg.Nucl.Chem.,32,91 (1970)
1970CFa Y Couturier,J Faucherre; Bull.Soc.Chim.Fr.,1323 (1970)
1970GDa D Goel,Y Dutt,R Singh; J.Inorg.Nucl.Chem.,32,2119 (1970)
1970GMj V Gordienko,Y Mikhailyuk; Zh.Anal.Khim.,25,2267(E:1946) (1970)
1970GTb K Gupta,S Tandon; J.Indian Chem.Soc.,47,972 (1970)
1970HOa M Hirai,Y Oka; Bull.Chem.Soc.Jpn.,43,778 (1970)
1970HRa M Hogben,K Radley,L Reeves; Can.J.Chem.,48,2960 (1970)
1970NDa R Nayan,A Dey; Z.Naturforsch.,25B,1453 (1970)
1970SSe R Sathe,S Shetty; J.Inorg.Nucl.Chem.,32,1383 (1970)
1969AMa L Adamovich,A Mirnaya,A Khukhryanskaya; Zh.Anal.Khim.,24,12,1816 (1969)
1969CAb I Chawla,A Andrews; J.Inorg.Nucl.Chem.,31,163 (1969)
1969CAc I Chawla,A Andrews; J.Inorg.Nucl.Chem.,31,3809 (1969)
1969DDc S Dube,S Dhindsa; Z.Naturforsch.,24B,967;1234 (1969)
1969DMd N Dyatlova,V Medyntsev,T Balashova et al; Zh.Obshch.Khim.,39,329 (1969)
1969HSc H Harries,S Savage,G Wright,N Logan; J.Inorg.Nucl.Chem.,31,2477;3149
(1969)
1969KMa H Kakihana,M Maeda; Bull.Chem.Soc.Jpn.,42,1458 (1969)
1969KSd A Kettrup,H Specker; Z.Anal.Chem.,246,108;183 (1969)
1969KSe A Kettrup,H Specker; Zh.Anal.Khim.,24,6,108;183 (1969)
1969LAc E Lanza; Rev.Chim.Minerale,6,653 (1969)
1969MBc R Mesmer,C Baes; Inorg.Chem.,8,618 (1969)
1969SWa G Schwarzenbach,H Wenger; Helv.Chim.Acta,52,644 (1969)
1969UTa E Uhlemann,P Thomas,G Klose,E Arnold; Z.Anorg.Allg.Chem.,364,153 (1969)
1969ZSa V Zebic,D Skaric,V Skaric; Croat.Chem.Acta,41,235 (1969)
1968ANd L Adamovich,V van Nyan; Zh.Anal.Khim.,23,7,994 (1968)
1968BSa W Baldwin,D Stranks; Australian J.Chem.,21,2161 (1968)

1968BSb W Baldwin,D Stranks; Australian J.Chem.,21,603 (1968)
1968BTa F Bertin,G Thomas; Bull.Soc.Chim.Fr.,1255 (1968)
1968BWa B Budisinsky,T West; Anal.Chim.Acta,42,455 (1968)
1968CSa I Chawla,C Spillert; J.Inorg.Nucl.Chem.,30,2717 (1968)
1968DMa N Dyatlova,V Medyntsev,T Medved et al; Zh.Obshch.Khim.,38,1071;1076 (1968)
1968DMb N Dyatlova,V Medyntsev,T Medved et al; Zh.Obshch.Khim.,38,5,1065;1071;1076 (1968)
1968FHa J Feeney,R Haque,L Reeves,C Yue; Can.J.Chem.,46,1389 (1968)
1968GDb B Garg,Y Dutt,R Singh; J.Indian Chem.Soc.,45,576 (1968)
1968LCa E Lanza,G Carpeni; Electrochim.Acta,13,519 (1968)
1968PGc M Paris,C Gregoire; Anal.Chim.Acta,42,431;439 (1968)
1968PRd B Prasad; J.Indian Chem.Soc.,45,1037 (1968)
1968RSd N Rudenko,A Sevastyanov; Zh.Neorg.Khim.,13,1,184 (1968)
1968RSe N Rudenko,A Sevastyanov,N Lanskaya; Zh.Neorg.Khim.,13,6,1566;8,2106 (1968)
1968RVa R Ripan,G Vericeanu; Stud.Univ.Babes-Bolyai,13,31 (1968)
1968SKc F Shevchenko,L Kuzina,G Vysotskaya; Ukr.Khim.Zh.,34,1177 (1968)
1967AHa S Ahrland; Helv.Chim.Acta,50,306 (1967)
1967AMa V Athavale,N Mahadevan,P Mathur,R Sathe; J.Inorg.Nucl.Chem.,29,1947 (1967)
1967BMb W Bierrnann,R McCorkell; Can.J.Chem.,45,2846 (1967)
1967BZa M Bartusek,J Zelinka; Collec.Czech.Chem.Commun.,32,992 (1967)
1967DMa S Dubey,R Mehrotra; Indian J.Chem.,5,327 (1967)
1967HAb H Harries; J.Inorg.Nucl.Chem.,29,2484 (1967)
1967KLa M Kabachnik,R Lastovskii,T Medved; Proc.Acad.Sci.(USSR),177,1060 (582) (1967)
1967MBc R Mesmer,C Baes; Inorg.Chem.,6,1951 (1967)
1967OHa H Ohtaki; Inorg.Chem.,6,808 (1967)
1967OKa H Ohtaki,H Kato; Inorg.Chem.,6,1935 (1967)
1967RBd P Relam,P Bhattacharya; J.Indian Chem.Soc.,44,536 (1967)
1967SKa L Sommer,V Kuban; Collec.Czech.Chem.Commun.,32,4355 (1967)
1967SSd T Sekine,M Sakairi; Bull.Chem.Soc.Jpn.,40,261 (1967)
1967UDa E Uhlemann,F Dietze; Z.Anorg.Chem.,353,26 (1967)
1966BLb C Bamberger,F Laguna; J.Inorg.Nucl.Chem.,28,1067 (1966)
1966GSc R Green,R Sleet; Australian J.Chem.,19,2101 (1966)
1966KWa G Kohler,H Wendt; Ber.Buns.Phys.Chem.,70,674 (1966)
1966MAh O Makitie; Suomen Kem.,B39,26,175 (1966)
1966PPa O Presnyakova,R Prishchepo; Zh.Neorg.Khim.,11,1436 (1966)
1966USa E Uhlemann,W Suchan; Z.Anorg.Chem.,342,41 (1966)
1966VMa D Vartak,N Menon; J.Inorg.Nucl.Chem.,28,2911 (1966)
1965ANa G Anderegg; Helv.Chim.Acta,48,1712;1718;1722 (1965)
1965BGb Y Buslaev,M Gustyakova; Zh.Neorg.Khim.,10,1524 (1965)
1965BKa T Belyavskaya,I Kolosova; Zh.Neorg.Khim.,10,236 (1965)
1965BKb T Belyavskaya,I Kolosova; Zh.Neorg.Khim.,10,236 (441) (1965)
1965BTa F Bertin,G Thomas,J Merlin; Compt.Rend.,260,1670 (1965)
1965BTb I Bear,A Turnbull; J.Phys.Chem.,69,2828 (1965)
1965DKb N Dyatlova,M Kabachnik,T Medved; Proc.Acad.Sci.(USSR),161,307 (607) (1965)
1965DMb S Dubey,R Mehrotra; J.Less Common Metals,9,123 (1965)

1965GAa R Green,P Alexander; Australian J.Chem.,18,329,651 (1965)
1965GAb R Green,P Alexander; Australian J.Chem.,18,651 (1965)
1965KBa I Kolosova,T Belyavskaya; Zh.Neorg.Khim.,10,411 (764) (1965)
1965MJa D Morris,M Jones; J.Inorg.Nucl.Chem.,27,2454 (1965)
1965OTa M Otomo; Bull.Chem.Soc.Jpn.,38,730 (1965)
1965SAa M Shying,J Aggett,R Temple; Australian J.Chem.,18,1719 (1965)
1965UFa E Uhlemann,E Frank; Z.Anorg.Chem.,340,319 (1965)
1964CMb J Cook,D Martin; J.Inorg.Nucl.Chem.,26,571 (1964)
1964DAa R Das,S Aditya; J.Indian Chem.Soc.,41,765 (1964)
1964DMb S Dubey,R Mehrotra; J.Less Common Metals,7,169 (1964)
1964HSa S Hietanen,L Sillen; Acta Chem.Scand.,18,1015;1018 (1964)
1964PCa Personal Communication etc; Chem.Soc.Spec.Publ.,no.17 (1964)
1964WEb H Wenger; Diss.Univ.Zurich (1964)
1963DSa Y Dutt,R Singh; Indian J.Chem.,1,402 (1963)
1963GAa R Green,P Alexander; J.Phys.Chem.,67,905 (1963)
1963HAd H Harries; J.Inorg.Nucl.Chem.,25,519 (1963)
1963IFb H Irving,J Frausto da Silva; J.Chem.Soc.,448;458;3308 (1963)
1963KBb I Kolosova,T Belyavskaya; Vestnik Moskov Univ.,18,1,52 (1963)
1963SDe S Srivastava,A Dey; J.Inorg.Nucl.Chem.,25,217 (1963)
1963SDh S Srivasta,A Dey; Inorg.Chem.,1,216 & unpublished (1963)
1963SSd V Starostin,V Spitsyn,G Silina; Zh.Neorg.Khim.,8,335 (660) (1963)
1963STc J Stary; Anal.Chim.Acta,28,132 (1963)
1962AMc L Adamovich,V Morgul-Meshkova,B Yutsis; Zh.Anal.Khim.,17,673 (678) (1962)
1962BKa H de Bruin,D Kaitis,R Temple; Australian J.Chem.,15,457 (1962)
1962BKc T Belyavskaya,I Kolosova; Vestnik Moskov Univ.,25,55 (1962)
1962BTa H de Bruin,R Temple; Australian J.Chem.,15,153 (1962)
1962COa B Carell,A Olin; Acta Chem.Scand.,16,2350;2357 (1962)
1962MMb D Martin,B Martin; Inorg.Chem.,1,404 (1962)
1962SCd G Schwarzenbach; Pure & Appl.Chem.,5,377 (1962)
1961AMb R Agarwal,R Mehrotra; J.Less Common Metals,3,398 (1961)
1961CAa V Chukhlantsev,K Alyamovskaya; Isvest.VUZ.Khim.,4,359;706 (1961)
1961COc B Carell,A Olin; Acta Chem.Scand.,15,1875 (1961)
1961DAa R Das,S Aditya; J.Indian Chem.Soc.,38,19 (1961)
1961HGa C Hardy,B Greenfield,D Scargill; J.Chem.Soc.,174 (1961)
1961MAe D Martin; J.Am.Chem.Soc.,83,1076 (1961)
1961MJa D Martin,G Janusonis,B Martin; J.Am.Chem.Soc.,83,73 (1961)
1961PPa R Patnaik,S Pani; J.Indian Chem.Soc.,38,229,364/79,709,896 (1961)
1961TPc S Talipov,V Podgornova,G Zinina; Uzbeksk.Khim.Zh.,4,11 (1961)
1960BHe A Bhattacharya; Personal communication (1960)
1960BSb C Banks,R Singh; J.Inorg.Nucl.Chem.,15,125 (1960)
1960KFc H Kido,W Fernelius,C Haas; Penn.State Univ.Con.No.AT(30)-907 (1960)
1960SGb P Schindler,A Garrett; Helv.Chim.Acta,43,2176 (1960)
1960TVa I Tananaev,A Vinogradova; Zh.Neorg.Khim.,5,321 (1960)
1959ASb L Adamovich,G Shupenko; Ukr.Khim.Zh.,25,155 (1959)
1959BSa C Banks,R Singh; J.Am.Chem.Soc.,81,6159 (1959)
1959BSg A Babko,L Shimadina; Zh.Neorg.Khim.,4,1060 (1959)
1959HOa Z Holzbecher; Collec.Czech.Chem.Commun.,24,3915 (1959)
1959KGb P Kovalenko,O Geiderovich; Zh.Neorg.Khim.,4,1974 (1959)
1959SCf M Smirnov,N Chukreev; Zh.Neorg.Khim.,4,2536 (1959)

1958MDa A Mukherji,A Dey; J.Inorg.Nucl.Chem.,6,314 & others (1958)
1957SFb F Snavely,W Fernelius,B Douglas; J.Soc.Dyers and Colourists,73,491 (1957)
1956GGa R Gilbert,A Garrett; J.Am.Chem.Soc.,78,3944;5501 (1956)
1956KFb I Korenman,F Frum,G Tsyganova; Zh.Obshch.Khim.,26,1558 (1956)
1956KSa H Kakihana,L Sillen; Acta Chem.Scand.,10,985 (1956)
1955FTa I Feldman,T Toribara,J Havill,W Neuman; J.Am.Chem.Soc.,77,878 (1955)
1955HOa E Holst; Diss.Pennsylvania State College (1955)
1955IFb R Izatt,W Fernelius,B Block; J.Phys.Chem.,59,235 (1955)
1955IFc R Izatt,W Fernelius,B Block; J.Phys.Chem.,59,80 (1955)
1955YAa L Yates; Thesis,State Coll,Washington.M.Fil.15662 (1955)
1954BFb B Bryant,W Fernelius; J.Am.Chem.Soc.,76,1696 (1954)
1954BFc B Bryant,W Fernelius; J.Am.Chem.Soc.,76,3783 (1954)
1954BFd B Bryant,W Fernelius; J.Am.Chem.Soc.,76,4864 (1954)
1954IHa R Izatt,C Haas,B Block,W Fernelius; J.Phys.Chem.,58,1133 (1954)
1954MAa G Mattock; J.Am.Chem.Soc.,76,4853 (1954)
1954SLc J Schubert,A Lindenbaum; J.Biol.Chem.,208,359 (1954)
1953PEa D Perkins; Biochem.J.,55,649 (1953)
1953UFa L van Uitert,W Fernelius,B Douglas; J.Am.Chem.Soc.,75,2736 (1953)
1953UFb L Uitert,W Fernelius,B Douglas; J.Am.Chem.Soc.,75,2736;2739;457 (1953)
1953UFd L van Uitert,W Fernelius; J.Am.Chem.Soc.,75,3862 (1953)
1953UFe L van Uitert,W Fernelius,B Douglas; J.Am.Chem.Soc.,75,457;2736;2739 (1953)
1952LAb W Latimer; "Oxidation Potentials",Prentice Hall,NY (1952)
1952PEa D Perkins; Biochem.J.,51,487 (1952)
1951KLb K Kleiner; Zh.Obshch.Khim.,21,18 (1951)
1949PEa K Pedersen; Acta Chem.Scand.,3,676 (1949)
1949TDa I Tananaev,E Deichman; Izv.Akad.Nauk(USSR),Otd.Khim.,144 (1949)
1941BJa J Bjerrum; Thesis,repr.1957,P.Haase&Son,Copenhagen (1941)
1931PRa M Prytz; Z.anorg.Chem., 197,103 (1931)
1929PRa M Prytz; Z.anorg.Chem., 180,355 (1929)
1913BKa B Bleyer,S Kaufmann; Z.Anorg.Chem.,82,71 (1913)
1910WOa J Wood; J.Chem.Soc.,97,878 (1910)
1899LEa H Ley; Z.Phys.Chem.,30,193 (1899)

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