SC-Database
Software version = 5.81 Data version = 4.62
Experiment list contains 1625 experiments for
 (no ligands specified)
 3 metals : U+++, U++++, UO2++
 (no references specified)
 (no experimental details specified)

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

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
U+++ oth none 25°C 0.0 U 1952LAb (992) 1
K(U+3e=U(s))=-91(-1800 mV)
From thermodynamic data
****
Br- HL Bromide CAS 10035-10-6 (19)
Bromide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
U+++ sp oth/un 25°C 0.0 U K1=-3.95 1965SMd (2371) 2
****
Cl- HL Chloride CAS 7647-01-0 (50)
Chloride;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
U+++ sp oth/un 25°C 0.0 U K1=-2.89 1965SMd (5905) 3

U+++ sp NaCl 25°C var U K1=-2.85 1962SMa (5906) 4
Medium:LiCl var
****
PO4--- H3L Phosphate CAS 7664-38-2 (176)
Phosphate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
U+++ oth none ? 0.0 U 1969MOc (13352) 5
K(U+H2L)=2.40
K(U+2H2L)=3.78
K(U+3H2L)=5.65
Methods: solubility, ion exchange, distribution, EMF
****
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

```
--------------------------------------------------------------------------------
U+++       oth none     ?  0.00  U        K1=3.55   B2=6.10   1969MOc (20642)   6
Data extrapolated from literature
********************************************************************************
C4H4N2                  L    Pyrimidine       CAS 289-95-2  (4247)
1,3-Diazine, pyrimidine;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
U+++       nmr non-aq 25°C 100%  C   H                    2004MBa (28779)   7
                                       K(UA3+L)=0.8
                                       K'(UB3+L)=3.56
1H nmr in d- toluene. DH(K)=-39 kJ mol-1, DS=-118 J K-1 mol-1; DH(K')=-70,
DS=-168.  A: t-butyl-cyclopentadiene; B: trimethylsilyl-cyclopentadiene.
********************************************************************************
C4H8O2                 HL    Isobutyric acid  CAS 79-31-2  (573)
2-Methylpropanoic acid; CH3.CH(CH3).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
U+++       oth none     ?  0.00  M        K1=3.55   B2=6.02   1969MOc (33253)   8
                                       B3=7.20
Data from survey of literature data
********************************************************************************
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
--------------------------------------------------------------------------------
U+++       nmr non-aq 25°C 100%  C   H                    2004MBa (44708)   9
                                       K(UA3+L)=1.72
                                       K'(UB3+L)=4.7
1H nmr in d- toluene. DH(K)=-46 kJ mol-1, DS=-123 J K-1 mol-1; DH(K')=-83,
DS=-193.  A: t-butyl-cyclopentadiene; B: trimethylsilyl-cyclopentadiene.
********************************************************************************
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
--------------------------------------------------------------------------------
U+++       oth none     ?  0.00  M        K1=12.4          1969MOc (47072)  10
Constant obtained from survey of literature data
********************************************************************************
C7H9N                   L    3,5-Lutidine       (323)
3,5-Dimethylpyridine; C5H3N.(CH3)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
U+++       nmr non-aq 25°C 100%  C   H                    2004MBa (56290)  11
                                       K(UA3+L)=1.74
```

K'(UB3+L)=4.9
1H nmr in d- toluene. DH(K)=-44 kJ mol-1, DS=-116 J K-1 mol-1; DH(K')=-85, DS=-194. A: t-butyl-cyclopentadiene; B: trimethylsilyl-cyclopentadiene.
****
C10H8N2 L 2,2'-Bipyridyl CAS 366-18-7 (25)
2,2'-Bipyridine; (C5H4N)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
U+++ nmr non-aq 21°C 100% U HM 2001RNa (69658) 12
K(UI3+L)=1.04
K(UI3L+L)=2.11
Medium: pyridine. At -40 C K(UI3L2+L)=0.20. DH(UI3+L)=-21 kJ mol-1, DS=-52 J K-1 mol-1; DH(UI3L+L)=-9, DS=8; DH(UI3L2+L)=-12, DS=-47.
****
C14H23N3O10 H5L DTPA CAS 67-43-6 (238)
Diethylenetriamine-pentaethanoic acid; HOOC.CH2.N(CH2.CH2.N(CH2.COOH)2)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
U+++ oth oth/un ? 0.0 U K1=25.1 1969MOc (89424) 13
From survey of literature data
****
C18H18N4 L CAS 16858-01-8 (1528)
Tris(2-pyridylmethyl)amine; (C5H4NCH2)3N

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
U+++ nmr non-aq RT 100% U K2=1.1 2000WMa (97274) 14
Method: 1H nmr. Medium: C5D5N
****
e- HL Electron (442)
Electron;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
U++++ EMF NaClO4 25°C 1.0M C TI 1990CVc (993) 15
Method: cyclic voltammetry. K(U +e=U(III))=-10.63 (-630 mV).
Data for 5-55 C. Data extrap to 1.0 M (HClO4) using SIT.

U++++ cal NaClO4 25°C 0.50M U H 1958FOa (994) 16
Medium: HClO4. DH(U+e=U(III))=99.0 kJ mol-1. DH(U(III)+3e=U(s))=512

U++++ EMF KCl 25°C 1.0M U 1958HMa (995) 17
K(U+e=U(III))=-10.70(-633 mV)

U++++ oth none 25°C 0.0 U 1952LAb (996) 18
K(U+e=U(III))=-10.3(-610 mV)
From thermodynamic data

U++++ vlt NaClO4 25°C 1.0M U I 1949KHa (997) 19
K(U=e=U(III))=-10.67(-631 mV)
Medium:HClO4. In 1 M HCl: K=-10.82(-640 mV)

U++++ EMF none 25°C 0.0 U 1949KNa (998) 20
K=9.3(0.55 V)
Metal ion: U(V). K(UO2+4H+e=U(IV)+2H2O
****
Br- HL Bromide CAS 10035-10-6 (19)
Bromide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
U++++ nmr NaClO4 ? 2.0M U K1=0.30 1964PCa (2372) 21
Method: NMR; medium: HClO4.

U++++ EMF NaClO4 20°C 1.60M U K1=0.18 1954ALa (2373) 22
****
CO3-- H2L Carbonate CAS 465-79-6 (268)
Carbonate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
U++++ EMF NaClO4 25°C 0.0 C TI 1990CVc (3406) 23
B3=6.6
Method: cyclic voltammetry.

U++++ sp NaClO4 25°C 0.00 U I 1989BGa (3407) 24
K5=-1.12
Value extrapolated to infinite dilution

U++++ cal KCl 25°C 3.0M C 1984GSe (3408) 25
DH(U+5CO3)=-20 kJ mol-1, DS(U+5CO3)=672
****
Cl- HL Chloride CAS 7647-01-0 (50)
Chloride;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
U++++ EMF none 25°C 0.0 U T H K1=3 1980LTb (5907) 26
100 C: K1=3; 200 C: K1=5. Evaluated data

U++++ ix NaClO4 25°C 0.20M C K1=0.28 1978SGg (5908) 27
Method: polarography. Medium: 0.20 M HClO4.

U++++ EMF KCl 70°C 0.56M U T K1=1.35 1977NNb (5909) 28
Temps from 70 to 150 Degrees. At 150 C: K1=2.45. Range of I: 0.56 to 4.0.

U++++ ix NaClO4 25°C 2.06M U I K1=-0.5 1974BUa (5910) 29
Medium: HClO4. K1=-0.1(I=3), 0 approx(I=3.93)

```
-------------------------------------------------------------------------------
U++++      ix  NaClO4 48°C  4.0M U T      K1=-0.3   B2=-0.96  1974BUc  (5911)  30
Medium: HClO4. K1=0.23(16 C); K1=0.02, B2=-1.1(25 C); K1=0,  B2=-0.3(31 C);
K1=-0.2, B2=-0.7(41 C); K1=-0.4, B2=-0.8(56 C)
-------------------------------------------------------------------------------
U++++      nmr NaClO4   ?   2.0M U        K1=0.78        1964PCa  (5912)  31
Method: NMR, medium: HClO4
-------------------------------------------------------------------------------
U++++      EMF oth/un 25°C  0.0  U  I     K1=0.8         1961SOe  (5913)  32
-------------------------------------------------------------------------------
U++++      dis NaClO4 10°C  3.0M U T      K1=0.52        1955DWa  (5914)  33
Medium: 2 M NaClO4, M HClO4. At 25 C: K1=0.26 (or K1=0.08, K2=-0.002)
40C: K1=0.18 (or K1=-0.04, K2=-0.06)
-------------------------------------------------------------------------------
U++++      EMF NaClO4 20°C 1.60M U        K1=0.30        1954ALa  (5915)  34
-------------------------------------------------------------------------------
U++++      sp  NaClO4 25°C 0.50M U  I     K1=-0.20       1950KNa  (5916)  35
At I=0 corr.: K1=0.85
*******************************************************************************
ClO2-                  HL    Chlorite         CAS 13898-47-0  (6143)
Chlorite;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
U++++      kin NaClO4 25°C  2.0M U                         1972BGb  (6011)  36
                                          K(U+HL)=0.6
Also at 10, 20, 55 C
*******************************************************************************
ClO4-                  HL    Perchlorate      CAS 7001-90-3  (287)
Perchlorate;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
U++++      nmr NaClO4   ?   2.0M U        K1=-0.92       1964PCa  (6390)  37
-------------------------------------------------------------------------------
U++++      nmr NaClO4 20°C  2.0M U        K1=-0.85       1963VRb  (6391)  38
Medium:HClO4
*******************************************************************************
F-                     HL    Fluoride         CAS 7644-39-3  (201)
Fluoride;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
U++++      cal NaClO4 25°C  4.0M U   H                     1990AHa  (7281)  39
DH(U+HF=UF+H)=17.52 kJ mol-1; DH(UF+HF=UF2+H)=9.8; DH(UF2+HF=UF3+H)=8
-------------------------------------------------------------------------------
U++++      ISE NaClO4 23°C  1.0M C        K1=8.48   B2=14.66  1990SCa  (7282)  40
                                          B3=19.51
                                          B4=23.92
Medium: 1.0 M HClO4/NaClO4. Method: F ion selective electrode.
```

```
-------------------------------------------------------------------------------
U++++      EMF none   25°C  0.0  U T H    K1=9      B2=14     1980LTb  (7283)  41
                                          B3=19
                                          B4=24
                                          B5=25
                                          B6=28
100 C: K1=9, B2=16, B3=21, B4=25, B5=27, B6=29; 200 C: K1=11, B2=18, B3=23,
B4=27, B5=29, B6=32. Evaluated data
-------------------------------------------------------------------------------
U++++      ISE KCl    25°C 1.00M U        K1=7.34   B2=13.12  1974KIa  (7284)  42
                                          B3=17.46
                                          B4=21.8
-------------------------------------------------------------------------------
U++++      EMF NaClO4 25°C  4.0M U                        1969GVa  (7285)  43
                                          K(U+HF=UF+H)=5.37
                                          B(U+2HF=UF2+2H)=8.29
                                          B(U+3HF=UF3+3H)=9.4
-------------------------------------------------------------------------------
U++++      ISE NaClO4 20°C  4.0M U                        1969NOb  (7286)  44
                                          K(U+HF=UF+H)=5.54
                                          K(UF+HF=UF2+H)=3.18
                                          K(UF2+HF=UF3+H)=2.0
Medium: HClO4
-------------------------------------------------------------------------------
U++++      nmr NaClO4 20°C  var  U        K1=8.78   B2=14.48  1966VRa  (7287)  45
By nuclear magnetic resonance; K2/K1(Al+++)=-0.55. Spectrophotomtry also
-------------------------------------------------------------------------------
U++++      nmr oth/un   ?   0.0  U        K1=7.15   B2=12.40  1964PCa  (7288)  46
                                          B3=17.30
Method: nmr
-------------------------------------------------------------------------------
U++++      sol oth/un   ?   var  U                        1963LNa  (7289)  47
                                          Kso(UF4(H2O)2.5)=-21.24
-------------------------------------------------------------------------------
U++++      nmr NaClO4   ?   2.0M U        K1=7.15   B2=12.41  1963VRa  (7290)  48
-------------------------------------------------------------------------------
U++++      nmr NaClO4 20°C  2.0M U        K1=7.15   B2=12.4   1963VRb  (7291)  49
                                          B3=17.7
-------------------------------------------------------------------------------
U++++      oth oth/un 25°C  dil  U                        1961NLa  (7292)  50
                                          K(U(OH)4+HF=U(OH)3F)=16.37
                                          K(U(OH)3F+HF=U(OH)2F2)=10.38
                                          K(U(OH)2F2+HF=U(OH)F3)=6.21
                                          K(U(OH)F3+HF=UF4)=2.48
-------------------------------------------------------------------------------
U++++      sol NaClO4 25°C 0.12M U                        1960SBb  (7293)  51
                                          Ks(UF4(s)=UF2+2F)=-12.46
                                          Ks(UF4(s)=UF3+F)=-3.96
                                          K3=4.23
                                          K4=4.27
```

Medium: HClO4. K5=1.59, K6=2.30

****

FClBrI HL (541)

Halides, comparative (for book data under ligand 80)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference		ExptNo
U++++	nmr	oth/un	20°C	2.0M	U				1963VRb	(7437)	52
							K1=0.8(Cl)				
							K1=0.3(Br)				
							K1=0.2(I)				

****

I- HL Iodide CAS 10034-85-2 (20)

Iodide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference		ExptNo
U++++	nmr	NaClO4	?	2.0M	U		K1=0.18		1964PCa	(8412)	53

Method: NMR. Medium: HClO4

****

NH3 L Ammonia CAS 7664-41-7 (414)

Ammonia

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference		ExptNo
U++++	gl	R4N.X	25°C	5.00M	U		K1=4.2		1985MMa	(9220)	54

****

NO3- HL Nitrate CAS 7697-37-2 (288)

Nitrate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference		ExptNo
U++++	sp	KNO3		var	U		K1=-3.8		1973LEa	(9970)	55
U++++	sp	KNO3	?	var	U				1973RAa	(9971)	56
							B(U(H2O)8+6L=UL6+8H2O)=6.23				
U++++	dis	NaClO4	20°C	8.0M	U		K1=-0.08	B2=0.58	1970LKa	(9972)	57
							B3=-0.43				
							B4=-0.30				
U++++	dis	NaClO4	0°C	3.80M	U		K1=0.1		1969RPb	(9973)	58
U++++	sp	oth/un	27°C	0.0	U		K1=1.55		1966SNe	(9974)	59
U++++	sp	non-aq	20°C	100%	U				1965WMa	(9975)	60
							Kd(UL4(TBP)+H2O)=-1.46				

Medium: TBP. Kd: UL4(TBP)+H2O=U(OH)L3(TBP)+HL(TBP)

U++++	sp	NaClO4	20°C	1.0M	U	I	K1=0.04	B2=-0.3	1964MWb	(9976)	61

Medium: LiClO4. K1=0.06(I=2), 0.20(I=3), 0.18(I=4);
B2=0.0(I=2), 0.3(I=3), 0.8(I=4); B3 < (I=1 to 4)

U++++ dis KNO3 25°C 1.75M U I 1963SKb (9977) 62
Kd(U+4L+2TBP(kerosene))=0.65
Kd=1.13(I=2.75)

U++++ sp NaClO4 26°C 3.50M U I K1=0.36 B2=0.47 1962EKa (9978) 63
B3=0.42
B4=0.18
Medium: HClO4. At I=2 M: K1=0.2, B2=0.17, B3=-0.02, B4=-0.46 plus others

****

OH- HL Hydroxide (57)
Hydroxide;

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

---

U++++ sol NaClO4 25°C 0.01M C 1998CPa (12347) 64
K(UO2(s)+2H2O=U(OH)4)=-7.3
*Kso(UO2)=-2.3
Medium: 0.008 M NaClO4. *Kso: UO2(s)+4H=U+2H2O.

U++++ sol oth/un 21°C 0.05M U 1990RFa (12348) 65
*K(1,2) < -4.0
*K(1,3) < -8.0
*K(1,4) < -12.0
*K(1,5) < -26
*K1=-0.50. Kso=-52.0. *Ks(UO2.xH2O(am)+3H=UOH)=3.5

U++++ EMF NaClO4 25°C 3.00M C 1986BFa (12349) 66
*Kso(UO2(s)+4H=U+2H2O)=-1.2
I=0 M corr. *Kso=-1.6

U++++ EMF none 25°C 0.0 U T H 1980LTb (12350) 67
*K1=-1
*B2=-2
*B3=-5
*B4=-9. *B5=-13
100 C: *K1=1, *B2=0, *B3=-2, *B4=-5, *B5=-10; 200 C: *K1=2, *B2=2, *B3=1, *B4=-3, *B5=-8. Evaluated data

---

U++++ sp oth/un 25°C 0.15M U T K1=13.57 1978NNa (12351) 68
Temps from 25 to 150 Degrees C. At 150, K1=13.40. Range of I: 0.12 to 2.0

U++++ sp NaClO4 ? U 1972GKd (12352) 69
*K1=-1.29
Medium: HClO4

U++++ nmr oth/un ? U B2=26.2 1969VSa (12353) 70

```
U++++      sp  none   25°C  0.0  M                        1967STe (12354)  71
                                      *K1=-1.11
-------------------------------------------------------------------------------
U++++      sp  NaClO4 25°C 1.00M U                        1964MWb (12355)  72
                                      *K1=-1.57
Medium: 1 M LiClO4
-------------------------------------------------------------------------------
U++++      oth oth/un 700°C 100%  U                       1964NTa (12356)  73
                                      Ks=-0.88
Medium: molten Na0.5K0.5Cl. Ks: UO2(s)+UCl4=(UOCl2)2, by analysis, m units
-------------------------------------------------------------------------------
U++++      nmr oth/un   ?   var  U        K1=12.5         1963VRc (12357)  74
-------------------------------------------------------------------------------
U++++      EMF oth/un 25°C  var  C  I                     1962RAb (12358)  75
                                      *K1=3.05
                                      *K2=-1.95
Medium: UCl4; method: H electrode. In 1.5% EtOH *K2=-3.13
-------------------------------------------------------------------------------
U++++      sol oth/un   ?     ?  U                        1960SGa (12359)  76
                                      Kso(U(OH)4)=-51.96
-------------------------------------------------------------------------------
U++++      gl  NaClO4 25°C  2.0M U  I                     1959SHa (12360)  77
                                      *K1=-1.68
In D2O *K1=-1.74
-------------------------------------------------------------------------------
U++++      sol none   25°C  0.0  U                        1957GLb (12361)  78
                                      Ks(U(OH)4(s)+OH)=-3.77
-------------------------------------------------------------------------------
U++++      oth none   25°C  0.0  U                        1956DPa (12362)  79
                                      *Kso(UO2(s))=3.80
                                      *K(UO2(s)+3H=U(OH))=2.60
-------------------------------------------------------------------------------
U++++      oth none   25°C  0.0  U                        1956DPa (12363)  80
                                      *Kso(U(OH)4(s))+4H)=3.80
                                      *Ks(U(OH)4(s)+3H)=8.78
-------------------------------------------------------------------------------
U++++      gl  NaClO4 25°C  3.0M U                        1956HIa (12364)  81
                                      *K1=-2.0
                                      *B(n+1,3n)=-1.2-3.4n
*B(n+1,3n): K((n+1)M+3nH2O=M(n+1)(OH)3n+3nH)
-------------------------------------------------------------------------------
U++++      sp  NaClO4 24°C 0.19M U T                      1955BEa (12365)  82
                                      *K1=-1.12
Medium: HClO4. *K1=-1.38(15.2 C)
-------------------------------------------------------------------------------
U++++      sp  none   25°C  0.0  U   H                    1955BEa (12366)  83
DH(*K1(U+H2O=UOH+H))=44.8 kJ mol-1, DS=138 J K-1 mol-1
-------------------------------------------------------------------------------
U++++      sp  NaClO4 25°C 0.50M U T                      1955KNa (12367)  84
                                      *K1=-1.47
```

*K1=-1.90(10 C), -1.00(43 C)

U++++ sp none 25°C 0.0 U T H 1955KNa (12368) 85
*K1=-0.68
DH(*K1)=49.0 kJ mol-1, DS=151 J K-1 mol-1(25 C); *K1=-1.12(10 C),-0.18(43 C)

U++++ sp NaClO4 25°C 0.50M U I 1950KNa (12369) 86
*K1=-1.50
*K1=-1.63(I=2),-1.56(I=1))

U++++ oth oth/un 20°C var U 1934LAa (12370) 87
*B2(U(H2O)6)=-2.30
method:magnetic susceptibility
****
PO4--- H3L Phosphate CAS 7664-38-2 (176)
Phosphate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
U++++ EMF none 25°C 0.0 U T H 1980LTb (13353) 88
K(U+HPO4)=12
K(U+2HPO4)=22
K(U+3HPO4)=31
K(U+4HPO4)=39
100 C: values: 14, 24, 32, 39; 200 C: values: 17, 27, 37, 43.
Evaluated data

U++++ sol KCl 20°C var U 1967MEb (13354) 89
K(U(HL)2(s)+4H=U+2H3L)=-9.96
Kso(U(HL)2)=-26.80
K(U+HL)=12.0
K(U+2HL)=22.0
Medium:HCl var. K(U+3HL)=30.6, K(U+4HL)=38.6 plus other sol. products
---
U++++ oth oth/un 25°C ? U 1960DMa (13355) 90
Ks(U(HL)2=U+2HL)=-27.5

U++++ sol oth/un 20°C ? U 1960MAd (13356) 91
Ks(U(HL)2=U+2HL)=-27.74
****
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
---
U++++ sol NaClO4 25°C 0.10M U K1=19.07 1967MSc (13666) 92
Kso(UL(H2O)20)=-23.87
****
SCN- HL Thiocyanate CAS 463-56-9 (106)
Thiocyanate;

```
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
U++++      dis NaClO4 25°C  2.0M U T H  T K1=1.49   B2=2.11   1955DWa (15312)  93
DH(K1)=-23.8 kJ mol-1, DS=-42 J K-1 mol-1; DH(K2)=-7.5, DS=41.
K1=1.78, K2=0.52(10 C); K1=1.30, K2=0.68(40 C)
-------------------------------------------------------------------------------
U++++      EMF NaClO4 20°C  1.0M U      T K1=1.49   B2=1.95   1954ALa (15313)  94
                                         K3=0.23
*******************************************************************************
SO4--                  H2L    Sulfate          CAS 7664-93-9  (15)
Sulfate;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
U++++      EMF none   25°C  0.0  U T H    K1=5      B2=10     1980LTb (16615)  95
100 C: K1=6, B2=11; 200 C: K1=8, B2=13. Evaluated data
-------------------------------------------------------------------------------
U++++      ix  NaClO4 25°C 0.20M C        K1=2.47        1978SGg (16616)  96
Method: polarography. Medium: 0.20 M HClO4.
-------------------------------------------------------------------------------
U++++      dis NaClO4      3.80M U                       1969RPb (16617)  97
                                       *K1=2.3
                                       *B2=3.9
-------------------------------------------------------------------------------
U++++      dis oth/un 25°C  2.0M U                       1969VAa (16618)  98
                                       *K1=2.02
                                       *K2=0.9
Medium: HClO4
-------------------------------------------------------------------------------
U++++      kin NaClO4 25°C  1.0M U                       1966SOb (16619)  99
                                       *K1=2.20
-------------------------------------------------------------------------------
U++++      nmr NaClO4 20°C  2.0M U        K1=1.7         1963VRb (16620) 100
Medium: HClO4
-------------------------------------------------------------------------------
U++++      gl  oth/un 25°C  0.0  U                       1962SGd (16621) 101
                                     K(U(OH)2L(s)=U+2OH+L)=-31.17
-------------------------------------------------------------------------------
U++++      EMF oth/un 25°C  1.0M U        K1=2.62        1961SOe (16622) 102
-------------------------------------------------------------------------------
U++++      dis NaClO4 25°C  3.0M U T H                   1955DWa (16623) 103
                                       *K1=2.52
                                       *K2=1.35
Medium: 2 M NaClO4, M HClO4. At 10 C: *K1=2.63, *K2=1.34; 40 C: 2.38, 1.38.
DH(*K1)=-13 kJ mol-1, DS=2.8 J K-1 mol-1; DH(*K2)=3, DS=37
-------------------------------------------------------------------------------
U++++      dis NaClO4 25°C  2.0M U        K1=3.24   B2=5.42   1953WDa (16624) 104
Medium: HClO4. *K1=2.41, *K2=1.32
-------------------------------------------------------------------------------
```

U++++ dis NaClO4 25°C 2.0M U 1950BLb (16625) 105
*K1=2.53
*K2=-0.13
Medium: HClO4
****
WO4-- H2L Tungstate CAS 13783-36-3 (445)
Tungstate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
U++++ oth oth/un 16°C 0.10M U 1971BRc (17447) 106
K'=4.15
K': 3U + 4HW6O21(5-) = 3UW8O28(4-) + 4H. Method: paper electrophoresis
****
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
---
U++++ sol oth/un 25°C 0.50M U K1=9.01 1970MKe (19116) 107
****
C2H4O2 HL Acetic acid CAS 64-19-7 (36)
Ethanoic acid; CH3.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
U++++ oth oth/un ? 0.50M U K1=2.34 B2=4.30 1969MOc (20208) 108
B3=6.73
B4=8.97
B5=11.2
B6=13.8
Metal ion: UO++. B7=15.9, B8=18.9
Data from survey of literature data
****
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
---
U++++ vlt oth/un 22°C ? U K1=10.3 B2=11.3 1976NFa (21738) 109
B4=17.9
****
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
---
U++++ gl NaClO4 25°C 1.00M C K1=4.4 B2=8.3 1984LLa (25559) 110
B3=11.8
B4=15.1

B5=17.5
B6=19.0

****

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
U++++	vlt	oth/un	22°C	?	U		K1=10.3	B2=13.4	1976NFa (26282)	111
							B4=18.8			
U++++	vlt	NaClO4	25°C	0.1M	U		K1=9.00		1975FNa (26283)	112

****

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
U++++	sol	oth/un	25°C	0.50M	U		K1=9.78		1970MKe (30057)	113

****

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
U++++	dis	NaClO4	20°C	0.10M	U		K1=8.6	B2=17.0	1955RYb (38110)	114
							K3=6.4			
							K4=6.1			

****

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
U++++	sol	oth/un	25°C	0.50M	U		K1=8.81		1970MKe (38364)	115

****

C5H11NO2 HL DL-Valine CAS 516-06-3 (186)
DL-2-Amino-3-methylbutanoic acid; H2N.CH(CH(CH3)2).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
U++++	vlt	oth/un	22°C	?	U		K1=9.8	B2=13.3	1976NFa (40897)	116
							B4=19.6			

****

C6H5NO2 HL Nicotinic acid CAS 59-67-6 (419)
3-Pyridine-carboxylic acid; C5H4N.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
U++++	sp	alc/w	25°C	100%	U	M			1972RKb (42689)	117

K(UCl2+HL)=1.95
K(UCl+2L)=3.84

Medium: EtOH

****

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
U++++	vlt	NaNO3	20°C	1.0M	U		K1=4.9?	1967HAa (44248)	118

****

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
U++++	gl	oth/un	25°C	0.50M	U		K1=11.53 B2=19.46	1966NUa (46293)	119
U++++	sp	NaClO4	20°C	0.10M	U			1960ASa (46294)	120
							K(U(OH)2+L)=13.5		

****

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
U++++	sol	oth/un	25°C	0.50M	U		K1=9.28	1970MKe (48093)	121

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
U++++	gl	KCl	25°C	0.10M	U			1968CMb (48805)	122
							K(U(HL)2OH+H)=3.67		

****

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
U++++	vlt	oth/un	22°C	?	U		K1=7.0 B2=10.5 B3=15.6	1976NFa (50114)	123

****

C7H7NO2 HL CAS 495-18-1 (184)
Benzohydroxamic acid; C6H5.CO.NH.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
U++++	gl	NaClO4	25°C	0.01M	U		K1=9.89 B2=18.00	1966BBf (55518)	124

B3=26.32
B4=32.95

Medium: HClO4

****

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
U++++	sp	oth/un	25°C	0.10M	U		K1=7.2	1964PCa (58691)	125

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
U++++	sp	non-aq	25°C	100%	U	HM	K1=-0.22 B2=2.23	1976EWb (64366)	126

DH(K1)=-11.7 kJ mol-1 and DS(K1)=-43.5 J mol-1 K-1. DH(K2)=-25.9,
DS(K2)=39.3 in 1,2-dichloroethane.

****

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
U++++	vlt	oth/un	22°C	?	U		K1=10.1 B2=13.3	1976NFa (65982)	127
							B3=18.7		

****

C9H16O4 H2L Azelaic acid CAS 123-99-9 (3255)
Nonanedioic acid; HOOC.(CH2)7.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
U++++	dis	oth/un	25°C	0.50M	U		K1=9.08	1970MKe (67799)	128

****

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
U++++	sp	oth/un	25°C	?	U	M		1980PPa (74264)	129
							K(UL+Benzoylacetonate)=3.22		
							K(UL+Thenoylacetonate)=2.80		
							K(UL+Dibenzoylmethane)=2.50		
U++++	oth	oth/un	?	0.0	U		K1=20.3	1969MIb (74265)	130

From survey of literature data

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
U++++	gl	KCl	20°C	0.10M	U	T		1968CMb (74266)	131
							K(ULOH+H)=4.72		

```
                                        K((ULOH)2+2H)=6.53
                                        K(2ULOH=(ULOH)2)=2.9
-------------------------------------------------------------------------------
U++++      gl  KCl    25°C 0.10M U    M   K1=25.8        1967CMd (74267) 132
                                        K(UL+A)=5.61
                                        K(UL+B)=16.22
                                        K(UL+C)=11.08
                                        K(UL+D)=14.2
H4A=dihydroxybenzene-3,5-disulfonic acid, H4C=sulfosalicylic acid,
H4B=dihydroxynaphthalene-3,6-disulphonic acid, H2D=catechol
-------------------------------------------------------------------------------
U++++      gl  KCl    25°C 0.10M U    M                  1967CMd (74268) 133
                                        K(UL+A)=8.2
                                        K(UL+B)=4.2
                                        K(UL+C)=9.72
                                        K(ULC(OH)+H)=7.14
H2A=iminodiacetic acid, H2B=phthalic acid, H2C=8-hydroxyquinoline-5-sulfonic
-------------------------------------------------------------------------------
U++++      gl  oth/un 25°C  0.0  U  I                   1963EKc (74269) 134
                                        K(UL+OH)=8.95
                                        K(2ULOH=(ULOH)2)=2.78
                                        K(ULOH+H)=4.94
                                        K((ULOH)2+2H)=7.01
K(UL+OH)=9.00(I=0.01),9.07(I=0.1),9.08(I=0.25),9.17(I=0.5),9.13(I=1);
K(2UL(OH)=U2L2(OH)4)=2.84(I=0.01),2.75(I=0.1),2.79(I=0.25),2.48(0.5),2.86(1)
-------------------------------------------------------------------------------
U++++      gl  oth/un 25°C  1.0M U  I                   1963EKc (74270) 135
                                        K(ULOH+OH)=6.87
                                        K(UL(OH)2+2H)=12.83
                                        K(2UL2+H2L)=3.3
                                        K(2UL2+L)=12.93
Data at I=0.01 to 1.0. K(U2L3+2OH=12.11(I=0.1), K(HU2L3+H)=2.8(I=0.1)
-------------------------------------------------------------------------------
U++++      sp  oth/un 25°C 0.10M U       K1=25.83       1962KEa (74271) 136
-------------------------------------------------------------------------------
U++++      sol oth/un 25°C    ?  U       K1=25.6        1959KSa (74272) 137
-------------------------------------------------------------------------------
U++++      sp  NaClO4   ?  0.10M U  I                   1959SMa (74273) 138
                                        K(UF+L)=17.50
*******************************************************************************
C12H8N4O4S2           H2L                     CAS 3385-61-8  (2586)
7-(2-Thiazolylazo)-8-hydroxyquinoline-5-sulfonic acid;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
U++++      sp  diox/w 25°C  50%  U       K1=8.55   B2=15.21  1977RIa (80557) 139
*******************************************************************************
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
U++++	gl	KCl	20°C	0.10M	U		K1=26.9 K(ULOH+H)=4.85 K((ULOH)2+2H)=6.24 K(2ULOH=(ULOH)2)=3.5	1968CMb (88813)	140

****

C14H23N3O10 H5L DTPA CAS 67-43-6 (238)
Diethylenetriamine-pentaethanoic acid; HOOC.CH2.N(CH2.CH2.N(CH2.COOH)2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
U++++	EMF	NaCl	20°C	0.50M	U		K1=28.76	1972PRc (89425)	141
U++++	gl	KCl	25°C	0.10M	U		K(ULOH+H)=7.69	1968CMb (89426)	142

****

C14H24N2O8 H4L HMDTA CAS 1633-00-7 (920)
1,6-Diaminohexane-N,N,N',N'-tetraethanoic acid; ((HOOC.CH2)2N.CH2.CH2.CH2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
U++++	sol	NaClO4	25°C	0.10M	U		K1=24.64	1969MSg (89612)	143

****

C16H9N4O4BrS2 H2L CAS 62312-95-2 (2585)
7-(6-Br-2-benzothiazolylazo)-8-hydroxyquinoline-5-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
U++++	sp	diox/w	25°C	50%	U		K1=8.13	1977RIa (92678)	144

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
U++++	gl	KCl	25°C	0.10M	U		K(UL+H)=2.28	1968CMb (98101)	145

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
U++++	sp	none	25°C	0.0	U		K1=6.26	1989LIa (101556)	146

****

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

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
U++++      sp  oth/un  RT   6.0M U                        1997RRc (101654) 147
                                      K1eff=6.12
                                      B2eff=12.04
Medium: 6 M HCl
*************************************************************************
C26H28O4              H2L    B(CH2AcAcCH2)2B    (2253)
3,5,16,18-Tetraoxo[7.7]metacyclophane ;Cyclo-(-C6H4.(CH2)2.CO.CH2.CO.(CH2)2-)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
U++++      gl  diox/w 24°C  50%  U        K1=11.2        1979ACa (104023) 148
*************************************************************************
C34H46N4O14           H2L                      CAS 226947-33-7  (8530)
N,N'-Bis[(benzo-15-crown-5)-oylmethyl]diaminoglyoxime;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
U++++      gl  mixed  25°C  60%  U        K1=11.48       1999ADd (106078) 149
                                      B(UO2HL)=15.48
                                      B(UO2H2L2)=30.32
                                      B(UO2H-1L)=5.77
                                      B(UO2H-2L)=-2.62
Medium: 60% v/v acetone/H2O, 0.20 M KNO3.
*************************************************************************
C76H52O46             H9L    Gallotannin      CAS 1401-55-4  (2795)
Tannic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
U++++      oth NaCl   25°C 0.01M U                        1980LVa (107865) 150
                                      K1eff=6.93
                                      K2eff=5.04
Method: dialysis at pH 6
*************************************************************************
Polymer                      Fulvic acid        (1523)
Fulvic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
U++++      oth NaCl   25°C 0.01M U                        1980LVa (108183) 151
                                      K1eff=6.64
                                      K2eff=4.94
Method: dialysis at pH 6
*************************************************************************
Polymer                      Humic acid         (1524)
Humic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
```

```
--------------------------------------------------------------------------------
U++++      oth NaCl   25°C 0.01M U                      1980LVa (108244) 152
                                        K1eff=6.98
                                        K2eff=4.51
Method: dialysis at pH 6
********************************************************************************
e-                     HL    Electron           (442)
Electron;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      EMF KNO3   25°C  0.0  U TIH                    1990BGb   (999) 153
                                        K(UO2+2H+H2(g)=U++++)=9.1
                                        E(2e + UO2++=U++++)=0.269 V
--------------------------------------------------------------------------------
UO2++      EMF NaClO4 25°C  1.0M C TI                     1990CVc  (1000) 154
                                        K(UO2++ +e=UO2+)=1.013 (60 mV)
Method: cyclic voltammetry. Data for 5-55 C. Data extrap to 1.0 M (HClO4)
using SIT.
--------------------------------------------------------------------------------
UO2++      EMF NaClO4 25°C 3.00M C                        1986BFa  (1001) 155
                                        E(2e + UO2++=UO2(s))=0.305 V
                                        E(2e+4H+UO2++=U++++)=0.268 V
--------------------------------------------------------------------------------
UO2++      EMF none   25°C  0.0  U T H                    1980LTb  (1002) 156
                                        K(4UO2+2H2O=4U(V)O2+4H+O2)=-72
                                        K'=-64.7
                                        K"=-248
K': 2UO2+4H=2U(IV)+2H2O+O2. K": 4UO2+4H=4U(III)+2H2O+3O2.  At 100 C, values
are: -53, -54.6, -193. At 200 C: -37, -46.0, -148. Evaluated data
--------------------------------------------------------------------------------
UO2++      sp  none   25°C 0.00  U   H                   1974BFc  (1003) 157
                                        K=-4.85
K: UO2++ + U++++ + 2H2O=2UO2+ + 4H+; DH=77.8 kJ mol-1. Data for 25-90 C
--------------------------------------------------------------------------------
UO2++      sp  oth/un 450°C 100%  U T H                   1974LLb  (1004) 158
                                        K=1.15
Medium:(Li,K)Cl eutectic; K: UO2++ + U++++ + 2H2O(g) + 4Cl=2UO2+ + 4HCl(g);
DH=107.9 kJ mol-1; K=1.95(550 C), 2.44(600 C), 2.85(650 C)
--------------------------------------------------------------------------------
UO2++      vlt none   25°C 0.00  U                      1970BCc  (1005) 159
                                        K(UO2 + e=U(V)O2)=2.76(0.163V)
--------------------------------------------------------------------------------
UO2++      kin oth/un 25°C 1.00M U   H                   1970NEc  (1006) 160
                                        K(UO2 + Np+++=UO2+ +NpIV)=-1.5
Medium: HClO4; DH=-36.4 kJ mol-1
--------------------------------------------------------------------------------
UO2++      oth oth/un 25°C 0.10M U                       1970STa  (1007) 161
                                        K=-7.81
Medium: HCl; K: UO2 + U++++ + 2H2O=2U(V)O2 + 4H+
```

```
--------------------------------------------------------------------------------
UO2++      sp  non-aq 650°C 100%  U                      1964WAa  (1008) 162
                                        K=-5.92
Medium fused KCl. K: UO2++ + 2Cl- = 2UO2+ + Cl2(g)
--------------------------------------------------------------------------------
UO2++      EMF oth/un 25°C  1.0M U  IH                    1961SOe  (1009) 163
                                        K=11.12(328.8 mV)
Medium:HClO4. K: UO2+4H+2e=U(IV)+2H2O. DS(K)=-205 J K-1 mol-1. Data also for
1 M HCl(DS=-195 and 1 M H2SO4(DS=-137 and data for various I values
--------------------------------------------------------------------------------
UO2++      cal NaClO4 25°C 0.50M U   H                    1958FOa  (1010) 164
Medium:HClO. DH(UO2+4H+2e=U(IV)+2H2O)=-137.8 kJ mol-1
--------------------------------------------------------------------------------
UO2++      EMF oth/un 25°C  1.0M U                        1958HMa  (1011) 165
                                        K=18.26(540 mV)
Medium:HCl. K: UO2+4H+2e=U(IV)+2H2O
--------------------------------------------------------------------------------
UO2++      EMF none   25°C  0.0  U   H                   1957GUa  (1012) 166
                                        K=13.76(407 mV)
K: UO2+4H+2e=U(IV)+2H2O. DH(K)=-142 kJ mol-1
--------------------------------------------------------------------------------
UO2++      EMF none   25°C  0.0  U  I                    1952LAb  (1013) 167
                                        K=11.29(334 mV)
                                        K(UO2+e=UO2(V))=0.88(52 mV)
                                        K(UO2+2e=UO2(s))=15.1(447 mV)
K: UO2+4H+2e=U(IV)+2H2O. Other values form thermodynamic data at I=0
--------------------------------------------------------------------------------
UO2++      sp  none   25°C  0.0  U                      1951NKa  (1014) 168
                                        K=-6.23
K: UO2+U(IV)+2H2O=2UO2(V)+4H. Polarography also used
--------------------------------------------------------------------------------
UO2++      vlt oth/un 25°C  1.0M U                        1949KHa  (1015) 169
                                        K(UO2+e)=1.07(63 mV)
--------------------------------------------------------------------------------
UO2++      EMF none   25°C  0.0  U                      1949KNa  (1016) 170
                                        K=10.5(0.31 V)
K: UO2+4H+2e=U(IV)+2H2O
--------------------------------------------------------------------------------
UO2++      vlt NaClO4 25°C 0.50M U  I                    1949KOa  (1017) 171
                                        K(UO2+e)=1.05(62 mV)
K:UO2+e=UO2(V). Same value in 0.1 M KCl
--------------------------------------------------------------------------------
UO2++      EMF oth/un 18°C 0.05M U                        1910TIa  (1018) 172
                                        K=14.0(404 mV)
Medium:0.05 to 0.5 M H2SO4. K: UO2+4H+2e=U(IV)+2H2O
--------------------------------------------------------------------------------
UO2++      EMF oth/un 18°C  var  U                        1908LMa  (1019) 173
                                        K=14.5(419 mV)
Medium:H2SO4. K: UO2+4H+2e=U(IV)+2H2O
********************************************************************************
```

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sol	oth/un	20°C	var	U	M	1956CSc (1164)		174
							Ks(UO2HL(s)=UO2+HL)=-10.50		
							Ks(UO2LiL(s)=UO2+Li+L)=-18.82		
							Ks(UO2NaL(s)=UO2+Na+L)=-21.87		
							Ks(UO2LL(s)=UO2+K+L)=-22.60		
							Ks(UO2(NH4)L(s)=UO2+NH4+L)=-23.77		

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	NaClO4	20°C	0.05M	C		K1=1.79	1989RAb (2374)	175
Medium: 0.05 M NaClO4/HClO4.									
UO2++	sp	none	25°C	0.0	U		K1=-0.20	1957DMa (2375)	176
UO2++	EMF	NaClO4	20°C	1.0M	U		K1=-0.30	1951AHa (2376)	177
Method: quinhydrone electrode.									

****
BrO3- HL Bromate (6017)
Bromate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	dis	NaClO4	25°C	0.10M	U	H	K1=0.20	1988KCb (2438)	178
DH=0.1 kJ mol-1, DS=4 J K-1 mol-1									

****
CN- HL Cyanide CAS 74-90-8 (230)
Cyanide;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	oth/un	30°C	dil	U		1971JSb (2770)		179
							K(UO2+Mo(CN)8)=2.97		
UO2++	sp	oth/un	25°C	var	U		1969KBc (2771)		180
							K(UO2+Mo(CN)4(OH)3H2O=3.71		

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sol	NaClO4	24°C	0.10M	U		1993MKb (3409)		181

Kso(UO2CO3)=-13.89. By pH titration under CO2.

UO2++ sp NaClO4 25°C 0.50M C 1991BCd (3410) 182
K(UO2(CO3)2+CO3)=6.35
Method: thermal lensing spectrophotometry.

UO2++ gl NaClO4 25°C 0.50M C H 1991GLa (3411) 183
B(1,2,1)=-8.71
B(1,4,2)=-19.57
B(3,12,6)=-49.68
B(2,5,1)=-19.40
B(p,q,r); pUO2+qH2O+rCO2(g)=(UO2)p(OH)q(CO2)r+qH
B(1,6,3)=-29.45; B(11,24,6)=-72.48

UO2++ EMF NaClO4 25°C 0.0 C TI 1990CVc (3412) 184
B3=21.3
Method: cyclic voltammetry.

UO2++ cal oth/un 25°C U 1988USa (3413) 185
DH(UO2+3L)=-42.1 kJ mol-1
Ionic strength is variable within 0.27-1.08

UO2++ sp NaClO4 25°C 3.0M C 1986GRb (3414) 186
K(3(UO2)(CO3)3=(UO2)3(CO3)6+3(CO3))=-11.3

UO2++ cal oth/un 25°C 1.6M C H 1985SFa (3415) 187
Medium: 1.6 M (Na2CO3 + Na2SO4). DH(B2)=-39.6 kJ mol-1,
DH(B3)=-57.5 kJ mol-1.

UO2++ gl NaClO4 25°C 3.00M C I K1=8.3 1984GFa (3416) 188
B(UO2L2)=16.20
B(UO2L3)=22.61
B((UO2)3L6)=56.2
Kso(UO2L) = -13.94; Data also at 0.5 M NaClO4, and calc for 0.0 M

UO2++ cal KCl 25°C 3.0M C H 1984GSe (3417) 189
DH(UO2+3L)=-35.9 kJ mol-1,DS=312 J K-1 mol-1;DH((UO2)3L6+3L)=-46.2,DS=67.7
DH(UO2+2L=0.33(UO2)3L6)=-20.5, DS=290; DH(UO2L2=0.33(UO2)3L6)=-35.1,DS=-69

UO2++ gl NaClO4 25°C 3.0M C 1983FGb (3418) 190
B3=13.3
K(2UO2(CO3)3 + 4HCO3 = UO2(CO3)3 + U(CO3)5 + 2CO3)=4.98

UO2++ gl NaClO4 25°C 0.10M U M B2=16.15 1982MAc (3419) 191
B3=21.81

UO2++ gl NaClO4 25°C 3.0M C 1981CFb (3420) 192
K(3UO2(CO3)3 + 3CO2(g) + 3H2O = (UO2)3(CO3)6 + 6 HCO3)=-6.45

UO2++ sp NaClO4 25°C 3.0M C 1981FGc (3421) 193

K(3UO2(CO3)3+6H=(UO2)3(CO3)6+3CO2+3H2O)=1.62

UO2++ EMF none 25°C 0.0 U T H K1=10.1 B2=17.1 1980LTb (3422) 194
B3=21.4
100 C: K1=10.6, B2=18, B3=21.3; 200 C: K1=13, B2=19, B3=24.0. Evaluated data

---

UO2++ gl NaClO4 25°C 3.00M C M 1979CFa (3423) 195
K(UO2+2OH+CO2)=-8.99
K(3UO2+5OH+CO2)=-16.40
K(11UO2+25OH+6CO2)=-76.5
K(13UO2+30OH+7CO2)=-91.8

UO2++ sp NaNO3 20°C 0.10M U B2=16.22 1977JSa (3424) 196
K3=5.48

UO2++ dis oth/un 20°C 0.10M U 1975CSa (3425) 197
B(UO2+3L)=21.54

UO2++ vlt oth/un 25°C var U B2=4.0 1973AGa (3426) 198
B3=7.7
K1=2.2-2.8
Medium: Na2CO3

UO2++ EMF NaClO4 25°C 3.00M U 1972CIa (3427) 199
K(UO2+CO2(g)+H2O=UO2L+2H)=-9.00. K(3UO2+CO2(g)+4H2O=(UO2)3(OH)3+5H)=-16.6

UO2++ sol none 25°C 0.0 U T 1972SNb (3428) 200
+Kpso=3.9
Ks1=-4.39
+Ksp2=-15.66
+Kpso=3.65(50 C);Ks1=-4.37(50 C),-4.35(100 C),-4.34(150 C),-4.21(200 C);
+Ksp2(UO2CO3(s)+CO2(g)+H2O=UO2(CO3)2+2H)=-16.00(50 C)

UO2++ EMF NaClO4 25°C 0.10M U B2=16.16 1969TSb (3429) 201
B3=21.57

UO2++ EMF NaClO4 25°C 0.10M U 1968BIa (3430) 202
K3=4.7

UO2++ ix NaNO3 ? 0.50M U 1962PNa (3431) 203
K3=7.0
B3=ca.23

UO2++ gl oth/un 20°C var U 1962PNb (3432) 204
K3=5.5

UO2++ sol R4N.X rt 0.20M U B2=15.57 1960BKa (3433) 205
B3=20.70
Kso(UO2CO3(s)=-11.73
Ks=1.22

Also by glass electrode. Medium: NH4NO3. Ks: UO2(OH)2(s)+H2L=UO2L(s)+2H2O

UO2++ sol R4N.X 25°C 1.0M U 1959KSc (3434) 206
B3=22.8
Also by glass electrode. Medium: NH4Cl

UO2++ sp oth/un 26°C ca.2 U 1956BCb (3435) 207
K3=ca.3.5
By solubility Ks(Na4UO2L3(s)=4Na+UO2L3)=-2.8 to -2.0

UO2++ sol none 25?°C 0.0 U 1955MBd (3436) 208
Ks=4
I=0 corr. K(UO2L2+2HCO3=UO2L3+CO2(g))=1.81. From thermodynamic quantities B2=14.6, B3=18.3. Ks: UO2(OH)2H2O(s)+CO2(g)=UO2CO3(s)+2H2O

UO2++ ix oth/un ? var U 1955PAb (3437) 209
K3=7.0

UO2++ sol none 25?°C 0.0 U 1954BUa (3438) 210
K3=3.78

****

C6N6Fe---- H4L (2191)
Hexacyanoferrate (II); Fe(II)(CN)6----

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

---

UO2++ sol oth/un 25°C var U 1956TGb (3613) 211
Kso((OU2)2L)=-13.15

****

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

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

---

UO2++ con non-aq ? 100% U M 1992RSa (5917) 212
K(UO2A+L)=2.60
Medium: 1% DMSO+99% MeCN. A=N,N'-disalicylidene-1,2-benzenediamine (+others)

UO2++ sp NaClO4 20°C 0.05M C K1=1.98 1989RAb (5918) 213
Medium: 0.05 M NaClO4/HClO4.

UO2++ sp NaClO4 25°C 1.0M C TI K1=-0.29 B2=-2.00 1981ASc (5919) 214
Medium: 1.0-4.9 M HCl/HClO4. Data for 25-40 C. At 25 C and I=1.0 M:
DH(K1)=9.62 kJ mol-1, DS(K1)=26 J K-1 mol-; DH(B2)=20.1, DS(B2)=29.

UO2++ EMF none 25°C 0.0 U T H K1=2 1980LTb (5920) 215
100 C: K1=2; 200 C: K1=4. Evaluated data

UO2++ EMF KCl 70°C 0.03M U T K1=1.87 1977NNa (5921) 216
Temps from 70 to 150 Degrees. At 150 C: K1=3.25

```
--------------------------------------------------------------------------------
UO2++      oth oth/un 25°C  0.0  C        K1=1.59        1975AAc  (5922) 217
Method: use of Zr-PO4 as competitive cation-exchanger.
Medium: 0.01-4.0 M HCl.
--------------------------------------------------------------------------------
UO2++      ix  NaClO4 25°C 0.60M U  I     K1=0.04        1974BUa  (5923) 218
K1=0.04, I=2.00,  K1=0.23, I=4.00
--------------------------------------------------------------------------------
UO2++      sp  NaClO4 20°C  1.0M U        K1=-0.25       1970SWa  (5924) 219
--------------------------------------------------------------------------------
UO2++      EMF KNO3     ?   1.0M U  I     K1=-0.05       1967OMb  (5925) 220
K1=0.15(I=0.82); 0.38(I=0.54)
--------------------------------------------------------------------------------
UO2++      EMF none     ?   0.0  U        K1=1.2         1967OMb  (5926) 221
--------------------------------------------------------------------------------
UO2++      ix  none   25°C  0.0  U        K1=-0.1   B2=-0.9   1964PCa  (5927) 222
                                         K3=-1.70
--------------------------------------------------------------------------------
UO2++      oth KNO3   -3°C  sat  U        K1=0.26        1962FCa  (5928) 223
Method: freezing point
--------------------------------------------------------------------------------
UO2++      ix  NaClO4 32°C  1.0M U        K1=0.3         1961BTa  (5929) 224
--------------------------------------------------------------------------------
UO2++      sp  alc/w  25°C  50%  U        K1=1.24        1961MMc  (5930) 225
Medium: 50% EtOH, I=0 corr
--------------------------------------------------------------------------------
UO2++      sp  alc/w  25°C  30%  U  I     K1=0.78        1960HAb  (5931) 226
Medium: EtOH, 1.24 M NaClO4. K1=1.64(0%), 0.29(60%). In 90%, 0.08 M K1=2.83
--------------------------------------------------------------------------------
UO2++      sp  none   25°C  0.0  U        K1=0.22        1957BDb  (5932) 227
--------------------------------------------------------------------------------
UO2++      sp  none   25°C  0.0  U        K1=0.21        1957DMa  (5933) 228
--------------------------------------------------------------------------------
UO2++      dis NaClO4 25°C  2.0M U T H    K1=-0.06       1954DPa  (5934) 229
K1=-0.24 (10 C), 0.06 (40 C). DH(K1)=16 kJ mol-1, DS=50 J K-1 mol-1
--------------------------------------------------------------------------------
UO2++      EMF NaClO4 20°C  1.0M U        K1=-0.10       1951AHa  (5935) 230
Method: quinhydrone electrode. By spectrophotometry K1=-0.30 ?
--------------------------------------------------------------------------------
UO2++      gl  none   25°C  0.0  U        K1=0.38        1951NKa  (5936) 231
********************************************************************************
ClO2-                  HL    Chlorite         CAS 13898-47-0  (6143)
Chlorite;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      sp  NaClO4 25°C  1.0M U        K1=>-1.7       1964GKa  (6012) 232
--------------------------------------------------------------------------------
UO2++      sp  oth/un   ?     ?  U        K1=>-1         1964KGa  (6013) 233
********************************************************************************
```

```
ClO3-                  HL    Chlorate         CAS 7790-93-4  (971)
Chlorate;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
UO2++      dis NaClO4 25°C 0.10M U   H    K1=0.08        1988KCb  (6065) 234
DH=-3.9 kJ mol-1, DS=-11 J K-1 mol-1
*******************************************************************************
ClO4-                  HL    Perchlorate      CAS 7001-90-3  (287)
Perchlorate;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
UO2++      EMF non-aq 25°C 100%  U        K2=5.80        1967AJa  (6392) 235
Medium:MeCOOH
-------------------------------------------------------------------------------
UO2++      oth non-aq 20°C 100%  U                       1964VSa  (6393) 236
                                        K(R4NL+R4NUO2L3)=1.53
Method:infrared spectra. Medium:C6H6. R=C10H21
*******************************************************************************
F-                     HL    Fluoride         CAS 7644-39-3  (201)
Fluoride;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C  1.0M C    M   K1=4.24   B2= 7.21  1999ASa  (7294) 237
                                        K3=2.07
                                        K(UO2+L+ac)=6.66
                                        K(UO2+2L+ac)=9.63
                                        K(UO2+3L+ac)=11.70
Additional method: nmr. K(UO2+2F+2ac)=10.15.  Ac: ethanoate.
-------------------------------------------------------------------------------
UO2++      ISE NaClO4 25°C 3.00M C        K1=4.86   B2=8.62   1993FSa  (7295) 238
                                        B3=11.71
                                        B4=13.78
Specific ion interaction parameters are also given
-------------------------------------------------------------------------------
UO2++      sp  NaClO4 20°C 0.05M C        K1=3.15        1989RAb  (7296) 239
Medium: 0.05 M NaClO4/HClO4.
-------------------------------------------------------------------------------
UO2++      ISE non-aq 185°C 100%  M        K1=4.89   B2=9.255  1988JHa  (7297) 240
                                        B3=12.91
                                        B4=16.26
                                        B5=18.28
Medium: molten KSCN. K1=mol-1 kg, B2=mol-2 kg2 etc.
-------------------------------------------------------------------------------
UO2++      ISE NaClO4 21°C  1.0M C        K1=4.56   B2= 7.99  1985SCe  (7298) 241
                                        B3=10.34
-------------------------------------------------------------------------------
UO2++      EMF none   25°C  0.0  U T H    K1=5.1    B2=9.0    1980LTb  (7299) 242
```

B3=11.3
B4=12.6
100 C: K1=5.3, B2=9.1, B3=11.4, B4=12.9; 200 C: K1=6.0, B2=9.8, B3=11.6, B4=14.2. Evaluated data

---

UO2++ dis NaClO4 25°C 2.00M U K1=1.56 1976PRa (7300) 243

UO2++ ISE NaClO4 25°C 1.0M U K1=4.54 B2=7.98 1971AKa (7301) 244
B3=10.41
B4=11.9
Method: quinhydrone and fluoride-ISE

UO2++ cal NaClO4 25°C 1.0M U H 1971AKa (7302) 245
DH(K1)=1.7 kJ mol-1, DH(K2)=0, DH(K3)=0.3, DH(K4)=-2.1;
DS(K1)=92.5 J K-1 mol-1, DS(K2)=67.4, DS(K3)=47.7, DS(K4)=21.3

UO2++ EMF NaClO4 25°C 4.0M U 1969GVa (7303) 246
K(UO2+HF=UO2F+H)=1.5

UO2++ nmr oth/un 20°C 0.50M U K1=4.65 1969VSa (7304) 247
Method: nmr

UO2++ ix NaClO4 25°C 2.10M U I 1968KKd (7305) 248
*K1=1.36
Medium: HClO4. Method:cation exchange. *K1=1.52(I=1.04 to 0.51)
At I=0.2:*K1=1.57, *B2=1.64, *B3=1.68

UO2++ dis NaClO4 25°C 2.0M U H 1967AHa (7306) 249
DH(K1)=-8.36 kJ mol-1, DS=54.3 J K-1 mol-1

UO2++ EMF non-aq 760°C 100% U 1967KSa (7307) 250
B4=-3.93-4380/T
Medium:molten (Na/K)Cl, 690-830 C, x units

UO2++ sp NaClO4 25°C 0.65M U 1961CPc (7308) 251
K(UO2+HF=UO2F+H)=1.18

UO2++ sp none 20°C 0.0 U K1=4.77 1961KUa (7309) 252

UO2++ con non-aq -5°C 100% U 1960NVa (7310) 253
K(UO2F2+4HF=UF6+2H2O)=-3.95
Medium: liquid HF

UO2++ EMF NaClO4 20°C 1.0M U K1=4.54 B2=7.88 1956ALa (7311) 254
K3=2.57
K4=1.34

UO2++ EMF NaClO4 20°C 1.00M U K1=4.59 B2=7.93 1954ALb (7312) 255
K3=2.56
K4=1.36

UO2++	oth	none	25°C	0.0	U	K2=4.4	1954BBb	(7313) 256

UO2++	dis	NaClO4	25°C	2.0M	U IH	*K1=1.42	1954DPa	(7314) 257

*K1=1.74(10 C), 1.32(40 C). At 25 C: *K1=1.43(C=1), 1.38(C=0.5), 1.71(0.05) DH(*K1)=-23 kJ mol-1. DS=-50

UO2++	oth	oth/un	30°C	0.0	U T	K(2UO2F2=(UO2F2)2)=0.85	1954JKa	(7315) 258

By centrifuge, in UO2F2. K=0.42(0 C)

UO2++	oth	oth/un	0°C	var	U	K(2UO2F2=(UO2F2)2)=0.18	1952JKa	(7316) 259

UO2++	sp	oth/un	0°C	var	U	K1=5.5 B4=ca.8	1951BLa	(7317) 260

UO2++	ix	oth/un	25°C	var	U	K1=4.32	1951BLa	(7318) 261

UO2++	ix	KCl	25°C	var	U	K(UO2+HF=UO2F+H)=1.18	1950MKb	(7319) 262

****

IO3- HL Iodate CAS 7782-68-5 (1257)

Iodate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	dis	NaClO4	25°C	0.10M	U	H	K1=1.58	1988KCb	(8571) 263

DH=9.8 kJ mol-1, DS=63 J K-1 mol-1

UO2++	sol	R4N.X	25°C	0.20M	U T	B2=2.73 K3=0.94 K(UO2L2(s)=UO2L2)=-4.28 K(UO2L2(s)+L=UO2L3)=-3.34 Kso(UO2L2)=-0.71	1959KSb	(8572) 264

Medium:NH4Cl. At 60 C: B2=2.74, K3=0.69, Kso=-6.65, K(UO2L2(s)=UO2L2)=-3.91, K(UO2L2(s)+L=UO2L3)=-3.22

****

IO4- HL Periodate CAS 13444-71-8 (6063)

Periodate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	oth	NaNO3	25°C	0.50M	C	Keff=2.079	1975HUa	(8617) 265

Keff=K(UO2+IO4+2H2O=UO2IO6+4H),pH 2.2. Also 1.95 (pH 1.6), 1.08 (pH 1.1)

UO2++	sp	oth/un	18°C	0.50M	U	K(UO2+L+2H2O=UO2IO6+4H)=1.5	1971HUa	(8618) 266

Medium: KIO4. K=1.2 to 1.7

****

NH3 L Ammonia CAS 7664-41-7 (414)

Ammonia

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	R4N.X	25°C	5.00M	U		K1=2.0	1985MMa (9221)	267

****

NH3O L Hydroxylamine; CAS 5470-11-1 (1808)

Hydroxylamine; NH2.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sol	KCl	22°C	2.0M	U			1961KOb (9274)	268

Ks(UO2L'2(H2O)3(s)=UO2L'2+3H2O)=-3.39, K(UO2+L=UO2L'+L)=-1.15,
K(UO2L'2+L=HO2L'3+H)=-7.38. L'=NH2O-

****

NO2- HL Nitrite CAS 7782-77-6 (635)

Nitrite;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	con	non-aq	?	100%	U	M		1992RSa (9409)	269
							K(UO2A+L)=2.49		

Medium: 1% DMSO+99% MeCN. A=N,N'-disalicylidene-1,2-benzenediamine (+others)

****

NO3- HL Nitrate CAS 7697-37-2 (288)

Nitrate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	oth/un	90°C	6.25M	U		K1=0.15	1980BHb (9979)	270

Raman spectroscopy. Ion pair constant

UO2++	sp	KNO3	20°C	var	U		B2=-1.7	1970KKc (9980)	271
							K(UO2+2L+HL)=-1.7		

UO2++	dis	NaClO4	20°C	8.0M	U		K1=0.47	B2=-1.5	1970LKa (9981)	272

UO2++	EMF	NaClO4		1.06M	U	I	K1=-0.72	1967OMb (9982)	273

K1=-0.70(I=0.82), -0.43(I=0.54)

UO2++	con	alc/w	25°C	100%	U		K2=3.67	1966EJa (9983)	274

Medium:MeOH. K2=3.45(MeOH+2H2O), 3.21(MeOH+6H2O/UO2)
In EtOH: K2=4.47, 4.25(EtOH+2H2O), 4.16(EtOH+6H2O/UO2)

UO2++	con	non-aq	25°C	100%	U	I	K2=5.70	1966JEa (9984)	275

Medium acetone. In MeCOEt: K2=6.02; in i-BuCOMe: K2=6.39

UO2++ con non-aq 25°C 100% U I K2=6.36 1966JEa (9985) 276
Medium: acetone. K2=6.52(MeCOEt), 6.93(i-BuCOMe, 6.64(heptan-2-one)

UO2++ con alc/w 25°C 100% U I K2=3.67 1964JEa (9986) 277
Medium: MeOH anhydrous. K2=4.47(in EtOH), 5.59(PrOH). With UO2L2(H2O)6:
K2=3.21(in MeOH), 4.16(in EtOH)

UO2++ dis oth/un 25°C 0.0 U 1962AAa (9987) 278
Kd(UO2+2L+2T(TBP))=1.68
Medium: 0 corr. Product: UO2L2T2(TBP), M units

UO2++ ix NaClO4 32°C 1.0M U K1=-1.4 B2=-1.4 1961BTa (9988) 279
K3=0.9

UO2++ con alc/w 25°C 100% U I K2=3.4 1961JCa (9989) 280
Medium: MeOH. K2=3.3 to 3.9 in EtOH, 6.1 to 6.7 in MeCOEt and other solvents
---
UO2++ sp non-aq ? 100% U 1961RYb (9990) 281
K4=0.67
Medium: MeNO2

UO2++ sp non-aq ? 100% U M 1960MLa (9991) 282
Medium: BuOH. K(UO2L2+TBP=UO2L2(TBP))=0.8

UO2++ dis oth/un 25°C 0.0 U H 1960NAc (9992) 283
Kd=1.43; DH(Kd)=-18.0 kJ mol-1, DS=-32 J K-1 mol-1. TBP and CCl4 or kerosene
---
UO2++ dis oth/un ? var U M 1960SSc (9993) 284
Medium:HL. K(BHL(org)+UO2+2L=(BH)2UO2L3(org))=0.31(org=CCl4), 0.46(org=o-
xylene); B=(C8H17)3N

UO2++ dis oth/un 25°C 1.0M U H 1959SIa (9994) 285
Medium:HL. Kd(UO2+2L+2TBP(org)=UO2L2(TBP)2(org)]=1.35,org=n-dodecane. DH(Kd)
=26 kJ mol-1. Also Kd for 20 compounds R3PO4 and R3PO3 in place of TBP.

UO2++ dis oth/un 19°C 0.0 U M 1959SSa (9995) 286
Kd(UO2+2L+2T(kerosene)=UO2L2T2(kerosene))=3.40. T=(isopentyloxy)2(CH3)PO

UO2++ dis NaClO4 25°C 0.72M U M K1=-0.2 1959VNa (9996) 287
Medium: HClO4. Kd(UO2+2L+2T(CCl4)=UO2L2T2(CCl4))=1 T=(BuO)3PO;
K=2 T=(BuO)2BuPO; K=6 T=Bu3PO

UO2++ dis oth/un 25°C 0.0 U M 1959VSa (9997) 288
Kd(UO2+2L+hH2O=UO2L2(H2O)h(org))=-1.0(Et2O,h=4), -2.37(Pr2O,h=4),
-3.22(Bu2O,h=2.5), -4.06(Isopetyl ether,h=2.2). Also Kd for 9 other esters
---
UO2++ dis oth/un 25?°C 0.0 U M 1958COa (9998) 289
Kd(UO2+2L+2TBP(org)=UO2L2(TBP)2(org)]=1.71. org=amsco 125-90W

UO2++ dis oth/un 25°C var U M 1958IOa (9999) 290

Medium:HL. Kd(UO2+2L+2TBP(kerosene)=UO2L2(TBP)2(kerosene)]=1.08

UO2++ con alc/w 25°C 100% U I K2=3.15 1958JEb (10000) 291
K3(?)=1.39
Medium: EtOH, I=0 corr.. In acetone: K2=3.96, K3(?)=2.46

UO2++ dis oth/un 25°C 0.0 U M 1957ROa (10001) 292
Kd(UO2+2L=UO2L2(org))=-3.20(org=Bu2O), -2.52(Pr2O), -1.82(i-C5H11OCOCH3), -0.73(BuCOMe), 0.87(cyclohexanone), -0.94(Et2O), 1.80(20% (BuO)3PO,80% kero)

UO2++ sp non-aq ? 100% U 1957VLa (10002) 293
K3=3.6
Medium: Me2CO

UO2++ dis NaClO4 25°C 2.0M U K1=-0.62 1954DPa (10003) 294
K1=-0.52(10 C), -0.77(40 C)

UO2++ EMF NaClO4 20°C 1.0M U K1=-0.3 1951AHa (10004) 295

UO2++ sp NaClO4 25°C 7.0M U I K1=-0.57 1949BMa (10005) 296
K1=-0.68(I=5.38)

****

N3- HL Azide CAS 7782-79-8 (441)
Azide;

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

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UO2++ gl NaClO4 25°C 2.00M U K1=2.14 B2=3.92 1983CNa (10266) 297
B3=5.69
B4=5.85
B5=6.61
B6=7.78

UO2++ sp oth/un rt ? U K1=2.64 1962SAb (10267) 298

UO2++ sp NaClO4 35?°C 0.30M U K1=3.50 1961NPb (10268) 299

UO2++ sp oth/un 25°C var U K1=2.31 1961SAd (10269) 300

****

OH- HL Hydroxide (57)
Hydroxide;

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

---

UO2++ cal NaCl 25°C 0.0 C IH 2004CDb (12371) 301
DH(p,q): pUO2+qH2O=(UO2)p(OH)q+qH. From data for 0.1, 0.51 and 1.02 m NaCl
DH(1,1)=40.7 kJ m-1, DH(2,2)=47.8, DH(3,4)=98.9, DH(3,5)=119.5,DH(3,7)=177

UO2++ cal NaClO4 25°C 1.0M C IH 2004CDb (12372) 302
*B(1,1)=-5.2

```
                                        *B(2,2)=-5.95
                                        *B(3,5)=-16.2
*B(p,q) and DH(p,q) for the reaction: pUO2+qH2O=(UO2)p(OH)q+qH.
DH(1,1)=37 kJ mol-1, DH(2,2)=44.2, DH(3,5)=106.6. Medium: 1.0 m NaClO4.
-------------------------------------------------------------------------------
UO2++      gl  oth/un 25°C  0.0  C  I                    2004GMb (12373) 303
                                        *B(2,2)=-5.76
                                        *B(3,4)=-11.82,
                                        *B(3,5)=-15.89
                                        *B(3,7)=-29.26
Calculated from data for 0.5-3.0 m LiCl. For I=1.0 m LiCl, *B(2,2)=-6.32,
*B(3,4)=-12.53, *B(3,5)=-17.45, *B(3,7)=-29.99. Data for 0.05-0.20 M CaCl2
-------------------------------------------------------------------------------
UO2++      gl  NaNO3  25°C  0.0  C  I                    2004GMb (12374) 304
                                        *K1=-5.19
Calculated from data for 0.10-1.00 M NaNO3 and NaCl.
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.10M C  I                    2002BRa (12375) 305
                                        *K1=-5.01
                                        *B(2,2)=-5.98
                                        *B(3,4)=-12.39
                                        *B(3,5)=-16.36
0.1 M KCl: *K1=-5.17, *B(2,2)=-5.86, *B(3,4)=-12.00, *B(3,5)=-16.09. At
I=0, *K1=-5.1, *B(2,2)=-5.5, *B(3,4)=-11.7, *B(3,5)=-15.4, *B(4,7)=-22.1
-------------------------------------------------------------------------------
UO2++      gl  NaCl   25°C 0.10M C  I                    2002DGa (12376) 306
                                        *K1=-5.45
                                        *B(2,2)=-5.98,
                                        *B(3,4)=-12.22
                                        *B(3,5)=-16.55
Data for 0.10-4.5 M NaCl and 0.10-1.0 M NaNO3. *B(3,7)=-29.68. At I=0.0 M:
*K1=-5.19,*B(2,2)=-5.76, *B(3,4)=-11.82, *B(3,5)=-15.89, *B(3,7)=-29.26
-------------------------------------------------------------------------------
UO2++      gl  oth/un 25°C 0.10M C  I                    2000CBa (12377) 307
                                        *K1=-5.91
                                        *B(2,2)=-6.65
                                        *B(3,4)=-13.31
                                        *B(3,5)=-18.27
Medium: 0.10 M Na2SO4. *B(4,7)=-24.80, *B(5,8)=-26.64. *B(m,n): mUO2+nH2O=
(UO2)m(OH)n+nH. At I=1.0, *B(2,2)=-7.25, *B(3,4)=-13.53, *B(4,7)=-26.82.
-------------------------------------------------------------------------------
UO2++      sol NaClO4 25°C  5.0M M                      1998DGa (12378) 308
                                        Ks(UO3.2H2O+2H=UO2+3H2O)=5.14
Medium: 0.5 m NaClO4. Using Pitzer theory, at I=0, Ks=4.7. In 3 m NaCl,
Ks(Na0.33UO3.16.2H2O+2.33H=UO2+3.16H2O+0.33Na)=7.95. At I=0, Ks=13.
-------------------------------------------------------------------------------
UO2++      gl  R4N.X  25°C 0.10M C                      1995PNa (12379) 309
                                        *B(2,2)=-5.51
                                        *B(3,5)=-15.3
                                        *B(3,7)=-27.77
```

```
                                        *B(3,8)=-37.65
*B(3,10)=-62.14.  *B(m,n)=mUO2+nH2O=(UO2)m(OH)n+nH
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 3.00M C                      1993FSa (12380) 310
                                        *B(2,2)=-5.98
                                        *B(3,5)=-16.23
--------------------------------------------------------------------------------
UO2++      sol NaClO4 24°C 0.10M U                      1993MKb (12381) 311
K(UO3.2H2O(s)=UO2+2OH)=-22.19.  By pH titration.
--------------------------------------------------------------------------------
UO2++      sp  NaClO4 24°C 0.10M C                      1993MKc (12382) 312
                                        *B(2,2)=-5.97.
Method: laser-induced fluorescence spectroscopy.
--------------------------------------------------------------------------------
UO2++      sol NaClO4 25°C 0.50M C                      1992SBa (12383) 313
                                        *B(3,7)=-33.32
                                        *B(1,3)=-20.18
                                        *Ks(UO2(OH)2+2H=UO2+2H2O)=6.23
Solubility constants for crystalline Schoepite. Also at I=0
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.50M C   H                  1991GLa (12384) 314
                                        *B(2,2)=-6.07
                                        *B(3,5)=-16.40
--------------------------------------------------------------------------------
UO2++      sol none   100°C  dil  C T                   1988PPd (12385) 315
                                        Ks4=-9.47
Data for 100-300 C at 50 MPa H2.  Ks4: UO2+2H2O=U(OH)4.
--------------------------------------------------------------------------------
UO2++      sp  NaNO3  20°C  0.5M U                      1983DBc (12386) 316
                                        K(UO2(OH)+H)=3.34
--------------------------------------------------------------------------------
UO2++      con none   23°C  0.0  C                      1983SGe (12387) 317
                                        *K1=-5.2
--------------------------------------------------------------------------------
UO2++      gl  NaNO3  25°C 0.50M C  I                   1982MSh (12388) 318
                                        *B(2,2)=-6.01
                                        *B(3,4)=-12.24
Data for 0.50-3.0 M NaNO3. At I=1.0 M, *B(2,2)=-6.07, *B(3,4)=-12.31.
At I=3.0 M, *B(2,2)=-6.13, *B(3,5)=-16.65.
--------------------------------------------------------------------------------
UO2++      sol oth/un 25°C  var  C T H                  1981TCc (12389) 319
                                        K(UO2+2H2O+OH=U(OH)5)=-5.75
Data for 25-300 C. Solubility of UO2 at pOH=1.5 and 2.5
DH(K)=-0.6 kJ mol-1.
--------------------------------------------------------------------------------
UO2++      EMF none   25°C  0.0  U T H                  1980LTb (12390) 320
                                        *K1=-5.8.   *B2=-12
                                        *B(2,2)=-5.6
                                        *B(3,5)=-15.6
                                        *B(3,7)=-31
```

100 C: *K1=-4.2, *B2=-10, *B(2,2)-4.4, *B(3,5)=-12.4, *B(3,7)=-23; 200 C: -2.9, -8, -3.8, -10.7, -16. Evaluated data

---

UO2++ gl NaNO3 25°C 0.20M M 1980PDc (12391) 321
*K(UO2)=-4.80
*K: UO2+H2O=UO2(OH)+H

UO2++ gl NaClO4 25°C 3.0M C 1979CFa (12392) 322
*B(2,2)=-6.0
*B(3,5)=-16.6

UO2++ gl NaClO4 25°C 0.50M C 1979LPc (12393) 323
*B(1,2)=-3.81
*B(2,2)=-6.03
*B(3,4)=-13.17
*B(3,5)=-16.78
*B(q,p)=K(qUO2(2+) + pH2O = (UO2)q(OH)p(2q-p)+ +pH+)

UO2++ gl KCl 25°C 3.00M U 1979MIb (12394) 324
*B(2,2)=-6.30
*B(2,3)=-11.2
*B(4,6)=-17.85

UO2++ gl R4N.X 25°C 0.10M U 1979SAc (12395) 325
*B(2,2)=-5.63
*B(3,5)=-15.87
Medium: 0.10 M Et4NClO4.

UO2++ gl KNO3 25°C 0.10M U 1979SDa (12396) 326
*K1=-5.50, *B(2,2)=-5.89
*B(3,4)=-12.31
*B(3,5)=-16.46
*B(4,7)=-22.76

UO2++ con oth/un 25°C 0.00 U 1977VBa (12397) 327
*K(UO2=UO2(OH)+H)=-4.20

UO2++ gl KNO3 25°C 1.00M U 1974CGb (12398) 328
*B(2,2)=-6.02
*B(3,4)=-12.48
*B(3,5)=-16.22

UO2++ sp NaClO4 22°C 0.50M U 1974MAb (12399) 329
*B(2,2)=-6.0
*K'=-7.0
Medium:0.5-2 M. K': (UO2)2(OH)2 + UO2 +2H2O=(UO2)3(OH)4 + 2H

UO2++ gl NaClO4 25°C 3.00M U 1972MAa (12400) 330
*B(2,2)=-6.61
*B(3,4)=-14.28

```
                                        *B(3,5)=-18.16
Medium: 80% w/w D2O/H2O, 3 M NaClO4
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 3.00M U                      1972MAa (12401) 331
                                        *B(2,2)=-6.80
                                        *B(3,4)=-14.00
                                        *B(3,5)=-18.63
Medium: D2O, 3 M NaClO4
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C  3.0M U                      1972MAa (12402) 332
                                        *B(2,2)=-6.17
                                        *B(3,4)=-12.92
                                        *B(3,5)=-17.04
-------------------------------------------------------------------------------
UO2++      kin NaNO3   3°C 0.50M U                      1970FWa (12403) 333
                                        K((UO2)2(OH)2+H)=2.9
                                        K((UO2)2(OH)+H)=1.6
-------------------------------------------------------------------------------
UO2++      sol oth/un 25°C       U                      1969TSa (12404) 334
                                        Kso((NH4+)2U7O22(?))=-14.3
-------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.50M U                      1969VOa (12405) 335
                                        *K1=ca.-5.7
                                        *B(2,2)=-5.95
                                        *B(3,5)=-16.36
-------------------------------------------------------------------------------
UO2++      cal NaClO4 25°C 3.00M U   H                  1968ASb (12406) 336
                                        *B(2,2)=-6.02
                                        *B(5,3)=-16.54
DH(*(2,2))=39.7 kJ mol-1, DS=18.0 J K-1 mol-1. DH(*(3,5))=97.9; DS=26.1
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.20M U                      1968OCa (12407) 337
                                        *B(2,2)=-5.92
                                        *B(5,3)=-16.16
-------------------------------------------------------------------------------
UO2++      gl  oth/un 25°C  5.0M U  I                   1968SFb (12408) 338
                                        *K1=-5.53
                                        *B(2,2)=-6.52
                                        *B(3,5)=-17.76
Medium: MgNO3. At I=3.0: *K1=-5.38, *B(2,2)=--6.34, *B(3,5)=-17.37
-------------------------------------------------------------------------------
UO2++      sol none   20°C  0.0  M T                   1967GKc (12409) 339
                                        Kso(UO2(OH)2)=-21.12
Kso=-20.87(25 C), -20.63(30 C), -20.35(40 C), -20.06(50 C)
-------------------------------------------------------------------------------
UO2++      sol NaClO4 25°C 1.00M U                      1966BTb (12410) 340
                                        Ks=-23.92
Ks: K(Na0.14UO2(OH)2.14(s)=0.14Na + 2.14UO2(OH)2)
-------------------------------------------------------------------------------
UO2++      sp  NaClO4 25°C 2.00M U   H                  1965NBa (12411) 341
```

K=1.2
Medium: 2 M (H,Li)ClO4. K: UO2++ + UO2+ = U2O4+++. DH=-7.9 kJ mol-1, DS=-4

UO2++ gl NaClO4 25°C 0.10M U I 1964BSf (12412) 342
*B(2,2)=-6.09
*B(2,1)=-2.5
By spectrophotometry: *B(2,2)=-6.28, *B(1,2)=-1.9. In 30% EtOH, 0.1 M NaClO4 *B(2,2)=-6.2; -4.8(50 %)

UO2++ cal oth/un 25°C 6.00M U H 1964COc (12413) 343
DH(UO3(s)+2H=UO2+H2O)=-77.8 kJ mol-1(alpha-UO3), -74.8(Beta-UO3), -71.2 (gamma-UO3), -78.0(epsilon-UO3) plus others. Medium: 6 M HNO3

UO2++ gl NaCl 25°C 3.0M U I 1963DHa (12414) 344
*B(2,2)=-6.64
*B(3,5)=-18.07
*B(3,4)=-12.54
*B(4,6)=-20.0
*B(4,7)=-24.9. Also quinhydrone electrode. In 1 M KNO3: *B(2,1)=-4.2, *B(2,2)=-5.96, *B(3,5)=-16.21, *B(4,3)=-12.8

UO2++ gl NaClO4 25°C 3.0M U I 1963HRa (12415) 345
*B(2,2)=-6.04
*B(3,5)=-16.53
*B(3,4) ca.-13.6
*B(4,6) < -19.2
*K1=<-5.9 (range with up to 0.1 M UO2++); *B(m,n): K(mM+nH2O=Mm(OH)n+nH) Also in 3 M Mg(ClO4)2 *B(2,1)=-3.81,*B(2,2)=-6.25,*B(3,5)=-17.18 etc.

UO2++ gl oth/un 27°C var U 1963PSb (12416) 346
*K1=-4.59

UO2++ gl NaClO4 25°C 1.0M U 1963RJa (12417) 347
*B(2,2)=-5.94
*B(3,5)=-16.41

UO2++ gl KNO3 25°C 0.50M U T H 1962BMb (12418) 348
*K1=-5.7
*B(2,2)=-5.92
*B(3,5)=-16.22
*B(m,n): K(mM+nH2O=Mm(OH)n+nH); DH(*K1)=46 kJ mol-1,DS=46; DH(*B(2,2))=42.7 DS=30; DH(3,5)=105.0, DS=42 J K-1 mol-1. 94 C:*K1=-4.19, *B(2,2)=-4.51

UO2++ gl oth/un ? 1.0M U 1962NPa (12419) 349
*B(2,2)=-6.1

UO2++ ix NaNO3 ? 0.50M U 1962NPa (12420) 350
*B(3,5)=-16

UO2++ sol oth/un 25°C dil U 1962PPa (12421) 351

```
                                        Kso=-19.82
-------------------------------------------------------------------------------
UO2++      sol NaClO4 20°C  1.0M U                      1962RJa (12422) 352
                                        *B(2,2)=-5.96
                                        *B(3,5)=-16.74
-------------------------------------------------------------------------------
UO2++      gl  NaCl   25°C  1.0M U                      1962RJa (12423) 353
                                        *B(2,2)=-6.17
                                        *B(3,4)=-12.33
                                        *B(3,5)=-17.00
-------------------------------------------------------------------------------
UO2++      cal NaClO4 25°C  3.0M U   H                  1962SCe (12424) 354
DH(*B(2,2))=39.5 kJ mol-1, DH(*B(3,4))=75, DH(*B(3,5))=105, DH(*B(4,6))=100,
DS(*B(2,2))=17, DS(*B(3,5))=33. *B(m,n): mM+nH2O=Mm(OH)n+nH
-------------------------------------------------------------------------------
UO2++      gl  oth/un 25°C 1.50M U                      1961PEa (12425) 355
                                        *B(2,2)=-8.17
                                        *B(3,4)=-16.20
                                        *B(4,6)=-24.51
                                        *B(5,8)=-32.14
Medium: Na2SO4
-------------------------------------------------------------------------------
UO2++      sol R4N.X   rt  0.20M U                      1960BKa (12426) 356
                                        Kso(UO2(OH)2)=-21.74
Medium: NH4NO3
-------------------------------------------------------------------------------
UO2++      sol none   20°C  0.0  U                     1960BRb (12427) 357
                                        Kso(UO2(OH)2)=-17.22
                                        K(UO2(OH)2(s)=UO2OH+OH)=-11.89
                                        K(UO2)2(s)=UO2(OH)2)=-5.89
-------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U                      1960GRa (12428) 358
                                        *K1=-6.10
                                        *B(2,2)=-5.84
                                        *B(2,2)=-5.83
                                        *B(4,6)=-17.6
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C  3.0M U                      1960HIa (12429) 359
                                        *B(2,2)=-6.03
                                        *B(3,4)=-13.20
                                        *B(3,5)=-16.55
                                        *B(4,6)=-19.42
-------------------------------------------------------------------------------
UO2++      dis oth/un   ?   var  U                      1960OOa (12430) 360
                                        Kso(UO2(OH)2)=-23.74
-------------------------------------------------------------------------------
UO2++      dis NaClO4 20°C 0.10M U        K1=9.2    B2=17.2   1960STc (12431) 361
                                        B3=25.5
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C  3.0M U  I                   1959HSa (12432) 362
```

```
                                        *B(2,1)=-3.68
                                        *B(2,2)=-6.31
                                        *B(3,4)=-12.6 ?
*B(m,n): K(mM+nH2O=Mm(OH)n+nH). Method: also quinhydrone electrode
--------------------------------------------------------------------------------
UO2++      sol none   20°C  0.0  U                      1958BRb (12433) 363
                                        Kso(UO2(OH)2)=-17.22(?)
                                        Ks(UO2(OH)2=UO2(OH)+OH)=-10.89
--------------------------------------------------------------------------------
UO2++      gl  NaCl   25°C 0.16M U                      1958LDa (12434) 364
                                        *B(n+1,2n)=0.30-6.42n
*B(n+1,2n): K((n+1)M+2nH2O=M(n+1)(OH)2n+2nH)
--------------------------------------------------------------------------------
UO2++      gl  oth/un 25°C 0.35M U                      1957HWa (12435) 365
                                        *K1=-5.40
                                        *B(2,2)=-5.82
Medium:0.347 M Ba(ClO4)2; *B(2,2): K(2UO2+2H2O=(UO2)2(OH)2+2H)
--------------------------------------------------------------------------------
UO2++      gl  oth/un 25°C 0.34M U T H                  1957HWa (12436) 366
                                        *K1=-5.82
                                        *B(2,2)=-6.15
Medium:0.347 M Ba(ClO4)2; *B(2,2): K(2UO2+2H2O=(UO2)2(OH)2+2H); DH(*K1)=87.0
DH(*B(2,2)=28.0, DS(*K1)=180, DS(*B(2,2))=-25; *K1=-5.10(40 C),*B(2,2)=-5.92
--------------------------------------------------------------------------------
UO2++      oth none   25°C  0.0  U                      1956DPa (12437) 367
                                        *Kso(UO3(s)+2H)=14.74
                                        *Kso(UO2(OH)2(s)+2H)=4.97
                                        *Kso(UO2(OH)2H2O(s)+2H)=5.60
*Kso(UO3(s)+2H=UO2+H2O); *Kso(UO2(OH)2(s)+2H=UO2+2H2O); *Kso(UO2(OH)2H2O(s)+
2H=UO2+3H2O);method:combination of thermodynamic data
--------------------------------------------------------------------------------
UO2++      gl  none   25°C  0.0  U                      1956OBa (12438) 368
                                        *B(2,2)=-5.06
                                        *B(4,2)=-1.26
*B(m,n): K(mM+nH2O=Mm(OH)n+nH)
--------------------------------------------------------------------------------
UO2++      sol none   25°C  0.0  U                      1955GLc (12439) 369
                                        *Kso=6.04
                                        *Ks(UO2(OH)2(s)+H)=1.90
                                        Ks(UO2(OH)2(s)+OH)=-3.60
                                        Ks(UO2(OH)2(s)+2OH)=-3.77
*K1=-4.14
--------------------------------------------------------------------------------
UO2++      sp  oth/un   ?   var  U                      1955KTa (12440) 370
                                        *K1=-4.19
--------------------------------------------------------------------------------
UO2++      dis NaClO4 25°C 0.10M U                      1955RYa (12441) 371
                                        *K1=-4.2
                                        *K2=-5.20
--------------------------------------------------------------------------------
```

```
UO2++      gl  NaClO4 20°C  1.0M U                        1954AHa (12442) 372
                                      *B(2,2)=-6.05
                                      *B(n+1,2n)=0.30-6.35n
*B(m,n)(mM+nH2O=Mm(OH)n+nH). Method: also quinhydrone electrode
-------------------------------------------------------------------------------
UO2++      gl  oth/un 15°C 0.06M U  I                    1954FAa (12443) 373
                                      *B(2,2)=-5.72
Medium: Ba(NO3)2. In 0.6 M Ba(NO3)2 *B(2,2)=-5.97
-------------------------------------------------------------------------------
UO2++      EMF NaClO4 20°C  1.0M U                       1949AHa (12444) 374
                                      *K1=-4.70
-------------------------------------------------------------------------------
UO2++      gl  NaClO4   ?  0.15M U  I                    1949SUa (12445) 375
                                      *B(2,2)=-5.99
                                      *B(3,4)=-13.29
                                      *K(U3O8)=-3.55
*B(m,n): K(mM+nH2O=Mm(OH)n+nH); *K(U3O7(OH)n)=-3.55(n=0),-6.5(n=1),-7.4(n=2)
-11.0(n=3),-11.4(n=4). Method: freezing point and spectrophotometry
-------------------------------------------------------------------------------
UO2++      sp  oth/un   ?   var  U                       1947GUb (12446) 376
                                      *K1=-4.50
                                      *B(2,2)=-4.95
-------------------------------------------------------------------------------
UO2++      EMF none   25°C  0.0  U                       1947HKa (12447) 377
                                      *K1(UO2+H2O=UO2OH+H)=-4.09
Method: quinhydrone electrode
-------------------------------------------------------------------------------
UO2++      gl  oth/un 20°C  var  U                       1947MLa (12448) 378
                                      *B(2,2)=-5.87
-------------------------------------------------------------------------------
UO2++      EMF none   25°C  0.0  U                       1942HEa (12449) 379
                                      *K1=-4.3
Method: quinhydrone electrode
*******************************************************************************
O2--                  H2L    Peroxide         CAS 7772-84-1  (2813)
Peroxide; -O.O-
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
UO2++      sp  NaClO4  RT  0.70M C        K1=31.95       1992DBa (12723) 380
                                      K1eff=5.30 (pH 5.0)
Medium: 0.7 M LiClO4, pH 5.0.  Additional method: DPP.
-------------------------------------------------------------------------------
UO2++      sp  oth/un  0°C    ?  U    M                 1972GSf (12724) 381
                                      B((UO2)2L2(SO4)2)=71.8
                                      B((UO2)2L(SO4)3)=40.3
-------------------------------------------------------------------------------
UO2++      sp  oth/un   ?   var  U    M                 1968GOa (12725) 382
                                      K(UO2+3H2L=6H+UO2L3)=-38.4
                                      B3=71.7
```

Equilibrium constants for mixed UO2-L-citrate complexes

UO2++ sp oth/un ? var U M 1968GPe (12726) 383
K=-3.77
K'=-1.15
K"=-16
K((UO2)2YL(OH)+H)=8
H4Y=EDTA. K: (UO2)2Y+H2L=2H+(UO2)2YL; K': 2UO2Y+H2L=2H+(UO2)2Y2L;
K": (UO2)2Y2L+H2L=2H+(UO2)2YL2+Y

UO2++ sp oth/un ? var U M 1968GSg (12727) 384
B3=72.95
Equilibrium constants given for reactions involving (UO2)2LF5,
(UO2)2L2F5 and (UO2)2L3F2

UO2++ sol oth/un ? var U K1=32.04 B2=60.15 1968MOc (12728) 385
Ks(UO2L(H2O)4(s)+2H)=-2.0
Other solubilities also given

UO2++ sp oth/un ? 1.0M U 1965MAb (12729) 386
K(UO2L3+H)=11.06
K=-18.4
Medium: LiCl. K: 2HUO2L3+4H2O=(UO2)2L3+3H2L+4OH

UO2++ sp KCl ? 1.0M U M 1965SMa (12730) 387
K=-11.1
K: UO2(CO3)3+H2L+2OH=UO2L(CO3)2+CO3+2H2O

UO2++ sol none 25°C 0.0 U 1964PCa (12731) 388
K(UO2L(s)+H=UO2LH)=-1.44
K(UO2L(s)+2H=UOL+H2O)=0.18
K(UO2L(s)+OH=UO2LOH)=-1.96
K(UO2L(s)+2OH=UO3L+H2O)=-0.05

UO2++ gl oth/un ? var U 1960GPa (12732) 389
K(UO2L3+H)=ca.12.5

UO2++ sol oth/un 20°C ? U 1960MAa (12733) 390
K(UO2L(H2O)4(s)+2H=UO2+H2L+4H2O)=-2.86

UO2++ sol oth/un 78°C var U T 1959GJa (12734) 391
K(UO2L(s)=UO2L)=-4.0
K(UO2L(s)+2H=UO2+H2L)=-1.44
K(UO2L(s)+2H=UO2+H2L)=-1.44(78-114 C)

UO2++ sp KNO3 ? 0.40M U I M 1959KOb (12735) 392
K(UO2(CO3)3+H2L=UO2(CO3)2HL+HCO3)=2.0. At I=0 corr. K=2.2

UO2++ sp oth/un 0°C var U M 1959KPb (12736) 393
K(UO2(CO3)2L+H)=10.6

```
--------------------------------------------------------------------------------
UO2++      sp  oth/un   ?   var  U                      1958GPa (12737) 394
                                        K(2UO2+2H2L+H2O=H2U2O5L2)=-2.7
                                        K(HU2O5L2+H)=ca.7
                                        K(U2O5L2+H)=ca.10
--------------------------------------------------------------------------------
UO2++      sp  oth/un  0°C  var  U                      1958GPa (12738) 395
                                        K(UO2L3+H)=12.3
--------------------------------------------------------------------------------
UO2++      gl  none   25°C  0.0  U                      1958GTa (12739) 396
                                        Ks(UO2L(s)+H=UO2LH)=-1.44?
                                        Ks(UO2L(s)+OH=UO2LOH)=-1.96?
I=0 corr. Complexes may be polymers
--------------------------------------------------------------------------------
UO2++      sp  oth/un   ?   var  U                      1957MAc (12740) 397
                                        K1eff=4.71
Medium: 0.05-1.5 M Na2CO3
********************************************************************************
PO4---                H3L    Phosphate        CAS 7664-38-2  (176)
Phosphate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      con non-aq   ?  100%  U    M                 1992RSa (13357) 398
                                        K(UO2A+H2L)=4.15
Medium: 1% DMSO+99% MeCN. A=N,N'-disalicylidene-1,2-benzenediamine (+others)
--------------------------------------------------------------------------------
UO2++      sol NaClO4 25°C 0.50M C        K1=11.29       1992SBa (13358) 399
                                        K(UO2+HL)=11.29
                                        Kso((UO2)3L2)=-48.48
Also extrapolated values to I=0
--------------------------------------------------------------------------------
UO2++      dis NaClO4 25°C 1.00M U TIH                   1991MAb (13359) 400
                                        K(UO2+H2L)=2.94
                                        K(UO2+2H2L)=4.93
DH(UO2+H2L)=8.0 kJ mol-1, DS=84 J K-1 mol-1; DH(UO2+2H2L)=16.3; DS=151
at 1.0 M NaClO4, 25 C
--------------------------------------------------------------------------------
UO2++      sp  NaClO4 20°C 0.05M C        K1=3.26        1989RAb (13360) 401
Medium: 0.05 M NaClO4/HClO4.
--------------------------------------------------------------------------------
UO2++      dis oth/un 25°C 0.20M C                       1987EBa (13361) 402
                                        K(UO2+H3L=(UO2)H2L+H)=1.70
                                        K(UO2+2H3L=UO2(H2L)2+2H)=1.40
                                        K(UO2+2H3L=UO2(H2L)H3L+H)=1.78
Medium: HClO4/H3PO4. Distribution of 230U and 233U into benzene/HDEHP.
K(UO2+3H3L=UO2(H2L)(H3L)2+H)=3.57;  K(UO2+3H3L=UO2(H2L)3+3H)=2.04
--------------------------------------------------------------------------------
UO2++      sol none   25°C  0.0  U                      1983MPa (13362) 403
                                        K(UO2+H3L=UO2H2L+H)=1.50
```

```
                                        K(UO2+H3L)=1.30
                                        K(UO2+2H3L=UO2H4L2+2H)=1.30
                                        K(UO2+3H3L=UO2H7L3+2H)=2.30
-------------------------------------------------------------------------------
UO2++      EMF none   25°C  0.0  U T H                    1980LTb (13363) 404
                                        K(UO2+HPO4+H)=10.2
                                        K(UO2+2HPO4+2H)=19.9
                                        K(UO2+3HPO4+3H)=28.8
                                        K(UO2+HPO4)<8
K(UO2+2HPO4)<19. At 100 C: values are 11, 19, 27, <9, <19; At 200 C: values:
12, 20, 28, ,10, <22. Evaluated data
-------------------------------------------------------------------------------
UO2++      oth none     ?   0.0  U                        1969MOc (13364) 405
                                        K(UO2+HL)=8.43
-------------------------------------------------------------------------------
UO2++      sol KNO3   25°C 0.50M U  I                     1967MSh (13365) 406
                                        K(UO2+HL)=7.18
                                        K(UO2+2HL)=17.30
At I=0 corr: K(UO2+HL)=8.43, K(UO2+2HL)=18.57
Also many solubility products
-------------------------------------------------------------------------------
UO2++      sol NaNO3  20°C 0.32M U                        1965VPa (13366) 407
                                        K(UO2HL(s)=UO2+HL)=-12.17
                                        Kso((UO2)3L2)=-49.7
                                        Kso(NaUO2L)=-24.21
                                        Kso(KUO2L)=-25.50
Kso(RbUO2L)=-25.72, Kso(CsUO2L)=-25.41, Kso((NH4)UO2L)=-26.23
-------------------------------------------------------------------------------
UO2++      sol oth/un 25°C  dil  U                        1964MZa (13367) 408
                                        Kso(LiUO2L)=-25.6
                                        Kso(NaUO2L)=-28.2
                                        Kso(KUO2L)=-23.1
                                        Kso(RbUO2L)=-27.0
-------------------------------------------------------------------------------
UO2++      sol oth/un 20°C  dil  U                        1961CAa (13368) 409
                                        Kso((UO2)3L2)=-49.1
-------------------------------------------------------------------------------
UO2++      sol oth/un 25°C  var  U                        1961KAb (13369) 410
                                        Kso((UO2)3L2)=-46.68
-------------------------------------------------------------------------------
UO2++      sol oth/un 25°C  dil  U    M                   1961KZa (13370) 411
                                        Kso(NH4(UO2)L3(H2O)3)=-25.44
-------------------------------------------------------------------------------
UO2++      sp  NaClO4 25°C 1.00M U                        1958BAa (13371) 412
                                        K(UO2+H3L)=0.76
                                        B((UO2)(H3L)H-1)=0.72
                                        B((UO2)(H3L)2H-2)=0.41
                                        B((UO2)(H3L)2H-1)=1.33
-------------------------------------------------------------------------------
UO2++      sp  NaClO4 25°C 1.07M U                        1957THb (13372) 413
```

```
                                        B((UO2)H-1(H3L))=1.19
                                        B((UO2)H-2(H3L)2)=1.34
                                        B((UO2)H-2(H3L)3)=1.01
Also by distribution
-------------------------------------------------------------------------------
UO2++      sol oth/un 20°C  var  U    M                  1956CSd (13373) 414
                                        Kso(UO2(NH4)L)=-26.36
                                        Kso(UO2KL)=-23.11
                                        Ks(UO2HL=UO2+HL)=-10.67
-------------------------------------------------------------------------------
UO2++      gl  none   20°C  0.0  U                      1955MAa (13374) 415
                                        K(UO2+H2L)=3.0
                                        K(UO2H2L+H2L)=2.5
                                        K(UO2(H2L)2+H2L)=1.9
                                        K(UO2(H2L)2HL+H)=0.5
Also by anion exchange. K(UO2H2L(HL)2+H)=2.3, K(UO2(HL)3+H)=1.4,
K(UO2(H3L)(H2L)+H)=1.5 and others
-------------------------------------------------------------------------------
UO2++      sol NaClO4 25°C 1.00M U                      1953SBa (13375) 416
                                        K(UO2+2H3L=UO2(H2L)2+2H)=1.18
                                        K(UO2HL(s)+H3L=UO2(H2L)2)=-1.7
Medium: HClO4. Plus many other equilibria and solubility data
*******************************************************************************
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
-------------------------------------------------------------------------------
UO2++      sp  NaClO4   ?  0.10M U                      1973DVb (13667) 417
                                        K(5UO2+H2L)=-1.46
*******************************************************************************
SCN-                   HL    Thiocyanate      CAS 463-56-9  (106)
Thiocyanate;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
UO2++      con non-aq   ?  100%  U    M                  1992RSa (15314) 418
                                        K(UO2A+L)=1.70
Medium: 1% DMSO+99% MeCN. A=N,N'-disalicylidene-1,2-benzenediamine (+others)
-------------------------------------------------------------------------------
UO2++      cal NaClO4 25°C  1.0M U   H                  1971AKb (15315) 419
DH(K1)=-3.2 kJ mol-1, DS=3.5 J K-1 mol-1, DH(K2)=-5.7, DS=-19.8,
DH(K3)=2.9, DS=18
-------------------------------------------------------------------------------
UO2++      sp  NaClO4 20°C  1.0M U        K1=0.74   B2=0.97   1970SWa (15316) 420
                                        K3=-0.22 to -0.15
-------------------------------------------------------------------------------
UO2++      sp  NaClO4 20°C  1.0M U        K1=0.73   B2=0.96   1968SWa (15317) 421
                                        B3=0.8
-------------------------------------------------------------------------------
```

```
UO2++      sp  NaNO3  23°C  4.0M U  I     K1=0.71   B2=0.72   1964VMa (15318) 422
At I=2.5 M: K1=0.72, B2=0.70; at 0 corr: K1=1.5, B2=1.9
--------------------------------------------------------------------------------
UO2++      ix  NaClO4 32°C  1.0M U        K1=-1.3   B2=1.05   1961BTa (15319) 423
                                         B3=1.08
--------------------------------------------------------------------------------
UO2++      sp  alc/w  25°C  20%  U T H    K1=1.00        1957BDb (15320) 424
Medium: 20% w/w MeOH/H2O; DH(K1)=4.81 kJ mol-1, DS=35.6 J K-1 mol-1(25 C).
K1=0.99(15 C), 1.05(35 C), 1.07(45 C)
--------------------------------------------------------------------------------
UO2++      sp  none   25°C  0.0  U      T K1=0.93        1957DMa (15321) 425
--------------------------------------------------------------------------------
UO2++      sp  NaClO4 20°C  1.0M U      T K1=0.76   B2=0.74   1949AHa (15322) 426
                                          K3=0.44
********************************************************************************
SO3--                  H2L    Sulfite          CAS 7782-99-2  (801)
Sulfite;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  oth/un 23°C  var  U  I     K1=5.85        1967ZOc (15481) 427
By spec., 0.1 NH4ClO4: K1=6.01
--------------------------------------------------------------------------------
UO2++      sol NaCl   23°C  1.0M U        K1=5.26?  B2=9.17   1967ZOc (15482) 428
--------------------------------------------------------------------------------
UO2++      sol oth/un   ?   2.0M U                          1967ZOd (15483) 429
                                         B3(K3?)=1.01
--------------------------------------------------------------------------------
UO2++      sol oth/un 25°C  var  U        B2=7.10        1959KKb (15484) 430
                                         Kso(UO2L)=-8.59
********************************************************************************
SO4--                  H2L    Sulfate          CAS 7664-93-9  (15)
Sulfate;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaNO3  25°C  0.0  C  I     K1=3.32   B2= 4.26  2004GMb (16626) 431
                                         B(1,1,1)=-2.30
                                         B(2,2,1)=-2.64
                                         B(3,4,1)=-8.45
                                         B(3,5,1)=-13.58
Calc. from data for 0.25-1.0 M NaNO3/Na2SO4, 0.5-1.5 M Na2SO4 and 0.25-
1.0 M NaCl/Na2SO4. B(p,q,r): pUO2+qH2O+rSO4=(UO2)p(OH)q(SO4)r+qH.
--------------------------------------------------------------------------------
UO2++      gl  oth/un 25°C 0.10M C  I M   K1=1.92   B2= 2.90  2000CBa (16627) 432
                                         B(2,2,2)=-2.17
                                         B(3,4,3)=-6.60
                                         B(4,7,4)=-15.85
                                         B(5,8,4)=-17.69
In 0.10 M Na2SO4. Data for I=1.03 and 1.57 m. B(p,q,r): pUO2+qH2O+rSO4=
```

(UO2)p(OH)q(SO4)r+qH. I=0: K1=3.15, B2=4.14, B(2,2,2)=-0.64, B(3,4,3)=-5.9

UO2++ sp oth/un 20°C 1.0M C I K1=3.14 B2= 4.20 1992BTa (16628) 433
Method: Raman spectroscopy. Calculated from data for 0.1-0.4 M Na2SO4.

UO2++ con non-aq ? 100% U M 1992RSa (16629) 434
K(UO2A+HL)=1.70
Medium: 1% DMSO+99% MeCN. A=N,N'-disalicylidene-1,2-benzenediamine (+others)

UO2++ cal none 25°C 0.0 U TIH K1=3.185 1990THa (16630) 435
Data for T=10-55 C: K1=3.009 (10 C), 3.365 (40 C), 3.548 (55 C). DH(K1)=
20.2 kJ mol-1.

UO2++ oth oth/un 25°C dil C I 1990VGa (16631) 436
K((UO2)2(OH)2+SO4)=3.01
Analysis of literature data. Value is for 0.025 M (UO2)SO4 solution.
In 1.5 M Na2SO4, K((UO2)2(OH)2+SO4)=3.95.

UO2++ sp NaClO4 20°C 0.05M C K1=2.26 1989RAb (16632) 437
Medium: 0.05 M NaClO4/HClO4.

UO2++ EMF none 25°C 0.0 U T H K1=2.9 1980LTb (16633) 438
60 C: K1=3.4; 100 C: K1=4.4; 150 C: K1=6; 200 C: K1=7. Evaluated data

---

UO2++ ix NaClO4 25°C 0.20M C K1=0.59 1978SGg (16634) 439
Method: polarography. Medium: 0.20 M HClO4.

UO2++ dis NaClO4 25°C 2.00M U K1=0.88 B2=1.23 1976PRa (16635) 440

UO2++ con diox/w 0°C 82% U I K1=6.03 1974EJa (16636) 441
K(triple ion)=3.45
Medium: w/w dioxan/H2O. In 20% dioxan: K1=2.58; 45%: 3.48; 70%: 5.90

UO2++ cal NaClO4 25°C 1.0M U H K1=1.81 B2=2.76 1971AKb (16637) 442
DH(K1)=18.2 kJ mol-1, DH(K2)=16.9; DS(K1)=96 J K-1 mol-1, DS(K2)=75

UO2++ cal none 25°C 0.0 U H 1971BLc (16638) 443
DH(K1)=20.8 kJ mol-1, DS(K1)=121.6 J K-1 mol-1

UO2++ EMF KCl 25°C var U T K1=2.93 1971NOb (16639) 444
K1=3.2(50 C), 3.68(70 C), 4.13(90 C), 4.37(100 C), 4.99(125 C), 5.63(150 C)

UO2++ oth oth/un 50°C 0.0 U T H K1=3.43 B2=4.60 1967WAa (16640) 445
Method:membrane equil Na-UO2. K1=3.14(25 C), 3.26(35 C); B2=4.21(25 C),
4.36(35 C). DH(K1)=21.3, DH(B2)=29.3 kJ mol-1

UO2++ sol R4N.X 17°C 8.0M U M 1963KGa (16641) 446
Ks((NH4)2UO2L2(s)+L)=-0.97
Medium: NH4NO3. Ks: (NH4)2UO2L2(s)+L=2NH4+UO2L3

```
UO2++      gl  oth/un 25°C  var  U        K1=3.85        1963PSb (16642) 447
                                         K(UO2(OH)+L)=3.32
-------------------------------------------------------------------------------
UO2++      ix  NaClO4 32°C  1.0M U        K1=1.63   B2=3.78   1961BTa (16643) 448
-------------------------------------------------------------------------------
UO2++      sp  alc/w  25°C  20%  U        K1=3.88   B2=5.48   1961MMc (16644) 449
Medium: 20% MeOH
-------------------------------------------------------------------------------
UO2++      sol oth/un 25°C  0.0  U T H                       1960LSa (16645) 450
25 to 250 C: K1, K2 and DH(K1), DH(K2) as functions of T. K1=2.72+(0.02939(
t-25)+.000323(T-25)^2)log(e) etc. DH(K1)=20 kJ mol-1(25 C) to 263(250 C)
-------------------------------------------------------------------------------
UO2++      sp  NaClO4 25°C  1.0M U        K1=1.81   B2=2.29   1960MAb (16646) 451
-------------------------------------------------------------------------------
UO2++      vlt oth/un 25°C  var  U        K1=-0.9        1959EKa (16647) 452
Metal ion possibly UO2+
-------------------------------------------------------------------------------
UO2++      dis oth/un 25°C  1.0M U  I     K1=1.53   B2=2.31   1958ALa (16648) 453
                                         B3 < 2.1
At I=0 corr. K1=2.76, K2=0.78. By quinhydrone elec. K1=2.03, K2=0.85,
B3=-0.38. By spec. K1=2.98, K2=0.90
-------------------------------------------------------------------------------
UO2++      dis oth/un 25°C  1.0M U  I     K1=1.53   B2=2.31   1958ALa (16649) 454
                                         B3<2.1
At I=0 corr. K1=2.76, K2=0.78
-------------------------------------------------------------------------------
UO2++      sp  oth/un 25°C  0.0  U        K1=2.96   B2=4      1957DMa (16650) 455
-------------------------------------------------------------------------------
UO2++      sol oth/un 250°C  0.0  U T  M                     1957GLa (16651) 456
                                         B((UO2)L2Ba)=9.3
At 39 C: B((UO2)L2Ag2)=6.18
-------------------------------------------------------------------------------
UO2++      dis NaClO4 25°C  2.0M U T H    K1=1.88   B2=2.85   1954DPa (16652) 457
20 C: K1=1.80, K2=0.96; 40 C: K1=1.98, K2=0.93. DH(K1)=9.6 kJ mol-1, DS=67;
DH(K2)=-4, DS=8
-------------------------------------------------------------------------------
UO2++      sp  NaClO4 25°C 4.50M U        K1=1.83        1953WDa (16653) 458
-------------------------------------------------------------------------------
UO2++      EMF NaClO4 20°C  1.0M U        K1=1.70   B2=2.54   1951AHa (16654) 459
                                         K3=0.86
                                         B((UO2)LA)=3.78
                                         B((UO2)L2A)=4.60
Method: quinhydrone electrode. HA=etahnoic acid. By spec. K1=1.75, K2=0.90
-------------------------------------------------------------------------------
UO2++      sp  NaClO4 25°C 4.50M U                       1949BMa (16655) 460
                                         *K1=0.70
*******************************************************************************
S2O3--                H2L    Thiosulfate      CAS 73686-28-7  (177)
Thiosulfate;
-------------------------------------------------------------------------------
```

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      sp  oth/un 25°C  var  U TI     K1=2.04        1963MAa (16910) 461
K1=2.47(15 C), 2.29(20 C).  In 60% EtOH: K1=4.95(20 C), 4.8(25 C), 4.6(30 C)
4.2(40 C) also values for 30, 90 vol% EtOH
-------------------------------------------------------------------------
UO2++      sol oth/un 25°C  var  U                      1960KKb (16911) 462
                                        Kso(UO2L)=-3.4
*************************************************************************
SeO3--                H2L    Selenite         CAS 7783-00-8  (2391)
Selenite;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      sol oth/un 20°C  var  U                      1957KCb (17077) 463
                                        Kso(UO2L)=-10.42
*************************************************************************
SiO3--                H2L    Silicate         CAS 7699-41-4  (747)
Silicate; SiO2(OH)2--
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      sol none   25°C  0.0  C                      2000PCa (17220) 464
                                        Ks(uranophane+6H)=11.7
Ks: Ca(H3O)2(UO2)2(SiO4).3H2O(s)+6H=Ca+2UO2+2H4SiO4+11H2O
Method: analyses by ICP-MS.
-------------------------------------------------------------------------
UO2++      sol none   30°C  0.0  C                      1992NSb (17221) 465
*Ks((UO2)2SiO4.2H2O+4H=2UO2+SiO2+4H2O)=5.74 (soddyite, pH 3.00);
*Ks(Ca(H3O)2(UO2)(SiO4).3H2O+6H=Ca+2UO2+2SiO2+9H2O)=9.42(uranophane,pH3.5)
-------------------------------------------------------------------------
UO2++      sol none   30°C  0.0  C                      1992NSb (17222) 466
*Ks(Na(H3O)(UO2)(SiO4).H2O+3H=Na+UO2+SiO2+4H2O)=<5.82 (sodium boltwoodite)
*Ks(Na2(UO2)2(Si2O5)3.4H2O+6H=2Na+2UO2+6SiO2=7H2O)=1.50 (sodium weeksite)
-------------------------------------------------------------------------
UO2++      sp  NaClO4 25°C 0.20M U                      1971PWc (17223) 467
                                        K(UO2+H2L=UO2HL+H)=-2.0
*************************************************************************
VO4---                H3L                    CAS 15457-75-7  (1586)
Vanadate; VO2(OH)3-- or polymers
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      sol oth/un 25°C  dil  U                      1962HGa (17394) 468
                                        Ks=-13.7
Ks:(K2(UO2)2H-4(HL)2(H2O)3)  carnotite
*************************************************************************
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
-------------------------------------------------------------------------
UO2++      EMF NaClO4 20°C 1.00M U        K1=1.83   B2=3.13   1972MPa (17655) 469
                                          B3=3.52
-------------------------------------------------------------------------
UO2++      oth NaClO4 31°C 0.10M U    M                  1972SSb (17656) 470
                                        K(UO2+A+L)=5.06
                                        K(UO2+B+L)=5.13
                                        K(UO2+C+L)=5.18
                                        K(UO2+D+L)=4.40
HA=benzoic acid, HB=phenylethanoic acid, HC=phenylpropanoic acid,
HD=phenoxyethanoic acid, K(UO2+HE+L)=4.2, where H2E=4-hydroxybenzoic acid
-------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U        K1=2.61        1968RSa (17657) 471
-------------------------------------------------------------------------
UO2++      sp  NaClO4 20°C  1.0M U        K1=1.89   B2=2.97   1967MNd (17658) 472
-------------------------------------------------------------------------
UO2++      vlt NaNO3    ?   1.0M U        K1=2.4    B2=3.0    1962HOa (17659) 473
*************************************************************************
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
-------------------------------------------------------------------------
UO2++      dis NaClO4 25°C  0.1M C                       1993NAa (18296) 474
                                        K(UO2+H+H2L)=7.82
                                        K(UO2+2H+2H2L)=14.40
                                        K(UO2+2H2L)=11.67
*************************************************************************
CH7NO6P2              H4L                       (6919)
Aminomethylenebis(phosphonic acid); NH2.CH(PO3H2)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      gl  R4N.X  25°C 0.10M C        K1=25.9   B2=30.5   1994BRa (18315) 475
                                        K(UO2(OH)L+H)=10.4
                                        K(UO2(OH)2L+H)=11.3
                                        K(UO2L+H)=6.7
                                        K(UO2HL+H)=6.0
Medium: Me4NNO3. K(UO2L2+H)=11.0, K(UO2HL2+H)=10.3,
K(UO2H2L2+H)=6.6, K(UO2H3L2+H)=5.0
*************************************************************************
C2HO2Cl3               HL    Trichloroacetic  CAS 76-03-9  (1205)
Trichloroethanoic acid; Cl3C.COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      dis NaClO4 25°C 0.10M U   H    K1=0.73        1988KCb (18337) 476
DH=0.5 kJ mol-1, DS=16 J K-1 mol-1
*************************************************************************
```

C2H2N2S3 H2L Bismuthiol I CAS 1072-71-5 (6261)
2,5-Dimercapto-1,3,4-thiadiazole;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	NaClO4	25°C	0.15M	U	I	K1=10.10	1977ZIa (18371)	477

****

C2H2O2Cl2 HL CAS 79-43-6 (1282)
Dichloroethanoic acid; Cl2CH.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	dis	NaClO4	25°C	0.10M	U	H	K1=1.14	1988KCb (18403)	478

DH=5.0 kJ mol-1, DS=39 J K-1 mol-1

****

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
UO2++	sp	NaClO4	25°C	3.0M	C	I	K1=6.31 B2=11.21 B3=13.8 B(2,3)=18.5 B(2,5)=28.5	2002HSa (19117)	479

By application of SIT, at I=0, K1=7.41, B2=11.80, B3=13.96.

UO2++	gl	NaClO4	25°C	2.00M	C	I	K1=6.20 B2=11.21 B3=14.9	2000FIa (19118)	480

At I=3.0 M, K1=6.39, B2=11.52, B3=15.2. By extrapolation (SIT) to I=0.0 M K1=7.38, B2=11.72, B3=13.6.

UO2++	ISE	NaClO4	25°C	1.0M	C		K1=6.03 B2=10.87 B3=14.0	2000VCa (19119)	481

Method: Hg,Hg2 oxalate electrode

UO2++	sp	NaClO4	20°C	0.05M	C		K1=3.22	1989RAb (19120)	482

Medium: 0.05 M NaClO4/HClO4.

UO2++	gl	KNO3	25°C	0.10M	U	M	K1=4.48 B2=8.43 B(UO2AL)=7.24 K(UO2A+L)=2.11 K(UO2L+A)=2.76	1985VSb (19121)	483

H2A=phthalic acid

UO2++	oth	NaClO4	40°C	0.10M	C	M	B2=6.47 B(UO2L(nta))=8.98	1984SIa (19122)	484

Method: Paper electrophoresis, pH 10.0.

UO2++	dis	NaClO4	25°C	4.0M	U		K1=6.28	1983CBa (19123)	485

Medium: 4 M HClO4/NaClO4

```
--------------------------------------------------------------------------------
UO2++      sp  KNO3   25°C 0.50M C        K1=9.36        1976BVa (19124) 486
                                          K(UO2+2HL)=6.00
Additional method: polarography.
--------------------------------------------------------------------------------
UO2++      sp  NaClO4 20°C 0.10M U  I     K1=6.36   B2=10.59  1969HAa (19125) 487
At I=1, K1=5.99, B2=10.64, B3=11.0
--------------------------------------------------------------------------------
UO2++      sp  NaClO4 20°C  1.0M U        K1=4.63   B2=8.68   1967MNd (19126) 488
                                          K3=3.31
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 1.00M U        B2=9.1         1967RMc (19127) 489
--------------------------------------------------------------------------------
UO2++      oth KCl    25°C 0.10M U        K1=6.7    B2=11.8   1967SMe (19128) 490
Method: electromigration
--------------------------------------------------------------------------------
UO2++      sol R4N.X  23°C 1.00M U  I M                  1967ZOb (19129) 491
                                          K(UO2L+SO3)=4.38
                                          K(UO2LSO3+SO3)=3.35 (spect.)
Medium : NH4Cl. I=2.5 M, K(UO2L+SO3)=4.54, K(UO2LSO3+SO3)=3.72.
--------------------------------------------------------------------------------
UO2++      dis NaClO4 20°C 0.10M U        B2=11.08       1960STa (19130) 492
--------------------------------------------------------------------------------
UO2++      sol NaClO4 20°C  1.0M U  I     K1=6.72   B2=11.92  1959MZa (19131) 493
                                          Kso=-8.66
Medium: HClO4. In 1 M HNO3: K1=6.85, B2=12.10, Kso=-8.52
--------------------------------------------------------------------------------
UO2++      ISE oth/un 25°C  0.0  U        K1=4.44   B2=10.44  1959PTa (19132) 494
--------------------------------------------------------------------------------
UO2++      ISE oth/un 25°C 0.07M U  I                   1959TVa (19133) 495
                                          K((UO2)2L3+2L)=4.42
I=0.02: K((UO2)2L3+L)=1.32
********************************************************************************
C2H3O2Cl               HL    Chloroacetic     CAS 79-11-8  (34)
Chloroethanoic acid; ClCH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      dis NaClO4 25°C 0.10M U   H    K1=1.49        1988KCb (19389) 496
DH=14.1 kJ mol-1, DS=76 J K-1 mol-1
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 1.00M C   H    K1=1.436  B2=2.24   1974PBa (19390) 497
                                          B3=2.57
DH(K1)=1.93, DH(B2)=1.91 and DH(B3)=1.98 kJ mol-1, obtained via calorimetry.
--------------------------------------------------------------------------------
UO2++      vlt NaClO4   ?   1.0M U        K1=1.6    B2=2.3    1962HOa (19391) 498
--------------------------------------------------------------------------------
UO2++      EMF NaClO4 20°C  1.0M U        K1=1.44   B2=2.24   1949AHa (19392) 499
                                          k3=0.51
By spectrophotometry: K1=1.38, K2=0.80, K3=0.37
```

****

C2H4N4S HL CAS 16691-43-3 (9032)
3-Amino-5-mercapto-1,2,4-triazole;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	KNO3	25°C	0.10M	C		K1=5.95		2003AHa (19500)	500

****

C2H4O2 HL Acetic acid CAS 64-19-7 (36)
Ethanoic acid; CH3.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	NaClO4	25°C	1.0M	C	T H	K1=2.58 B3=6.86	B2= 4.37	2002JRa (20209)	501

Data for 35-70 C. By calorimetry, DH(K1)=10.6 kJ mol-1, DS(K1)=86 J K-1 mol-1; DH(B2)=20, DS(B2)=152; DH(B3)=17.5, DS(B3)=192.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	NaClO4	25°C	1.0M	C	M	K1=2.12 K3=1.29 K(UO2+L+F)=6.66 K(UO2+L+2F)=9.63 K(UO2+L+3F)=11.70	B2= 3.77	1999ASa (20210)	502

Additional method: nmr. K(UO2+2L+2F)=10.15.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	dis	NaCl	25°C	0.30M	C	I	K1=2.60		1999MBb (20211)	503

Method: Solvent extraction into n-heptane, 0.05 M di-(2-ethylhexyl)-phosphoric acid. Data for 0.3-5.0 m NaCl. At I=0.0, K1=3.01.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	dis	NaClO4	25°C	0.10M	U	H	K1=4.56		1988KCb (20212)	504

DH=21.8 kJ mol-1, DS=123 J K-1 mol-1

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	vlt	KCl	30°C	0.50M	C		K1=2.83	B2= 5.17	1982CKb (20213)	505

Method: polarography.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	NaClO4	25°C	1.00M	C	H	K1=2.457 B3=6.518	B2=4.38	1974PBa (20214)	506

DH(K1)=2.83, DH(B2)=1.45 and DH(B3)=-0.29 kJ mol-1, obtained via calorimetry

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	EMF	oth/un	25°C	0.10M	U	T	K1=3.00		1972NPa (20215)	507

25-150 C
K1(50 C)=3.27, K1(90 C)=3.63, K1(100 C)=3.71, K1(125 C)=3.88, K1(150 C)=3.94

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	oth	oth/un	?	?	U		B3=5.61		1967MBa (20216)	508

Method: paper electrophoresis

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	sp	NaClO4	20°C	1.0M	U		K1=2.40 K3=1.95	B2=4.43	1967MNd (20217)	509

```
UO2++      ix  oth/un   ?  0.50M U        K1=2.52   B2=4.4    1966PKa (20218) 510
                                         B3=6.2
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C  1.0M U        K1=1.48?  B2=4.82   1964BSe (20219) 511
                                         B3=6.00
                                         B4=7.54
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.20M U        K1=2.70        1963FKa (20220) 512
--------------------------------------------------------------------------------
UO2++      dis NaClO4 20°C 0.10M U        K1=2.61   B2=4.9    1960STa (20221) 513
                                         B3=6.3
--------------------------------------------------------------------------------
UO2++      EMF NaClO4 20°C  1.0M U        K1=2.38   B2=4.36   1951AHa (20222) 514
                                         K3=1.98
********************************************************************************
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
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C  1.0M C   H    K1=1.89   B2= 3.21  1978DRa (20379) 515
                                         B3=4.51
By calorimetry: DH(K1)=8.62 kJ mol-1, DS=65.3 J K-1 mol-1; DH(B2)=10.6,
DS=61.1; DH(B3)=0.0, DS=25.
--------------------------------------------------------------------------------
UO2++      gl  oth/un 25°C .065M U TIH    K1=7.45   B2=14.03  1975GSa (20380) 516
At 35 C: K1=7.56, K2=6.41; 45 C: 7.40, 6.23. At  35 C, I=0.15: 7.70, 6.45.
At 35 C, I=0.25: K1=7.90, K2=6.57. DH(K1)=-46.4 kJ mol-1
--------------------------------------------------------------------------------
UO2++      sp  NaClO4 30°C 0.10M U                       1969RRa (20381) 517
                                         K(UO2+HL)=2.40
                                         K(UO2+2HL)=5.75
--------------------------------------------------------------------------------
UO2++      gl  KCl    30°C 0.10M U                      1962CTb (20382) 518
                                         K(UO2+HL)=2.88
                                         K(UO2HL+HL)=2.40
********************************************************************************
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
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C  1.0M C    M                  2000SGa (20643) 519
                                         B(UO2H-1L)=-1.26
                                         B(UO2H-1L2)=0.19
                                         B(UO2H-2L2)=-4.17
                                         B(UO2LF2)=10.36
B(UO2LF3)=11.89, B(UO2H-1LF3)=5.1, B((UO2)2H-2L2F4)=11.09,
B(UO2H-2L2F)=-2.40
--------------------------------------------------------------------------------
```

UO2++ gl NaClO4 31°C 0.10M U M K1=2.93 B2=5.15 1977SSb (20644) 520
B(UO2L(Ala))=12.01
K(ML2+M(Ala)2=2ML(Ala))=3.54

UO2++ cal NaClO4 25°C 1.00M C H T K1=2.35 B2=3.97 1976BBf (20645) 521
B3=5.17
DH(K1)=5.4 kJ mol-1, DS=63.1 J K-1 mol-1; DH(K2)=7.5, DS=63.5; DH(K3)=-0.8, DS=20.0

UO2++ gl NaClO4 31°C 0.10M U M 1976SSa (20646) 522
B((UO2)L(glycollate))=6.62

UO2++ gl NaClO4 20°C 1.00M C T K1=2.38 B2=3.95 1974MTa (20647) 523
B3=5.18

UO2++ gl KCl 30°C 0.10M U K1=2.97 B2=5.37 1962CTb (20648) 524

UO2++ dis NaClO4 20°C 1.0M U K1=2.71 B2=4.08 1962SBb (20649) 525
B3=5.5
****
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
---
UO2++ nmr NaClO4 25°C 1.0M C M B2=13.0 2000SGa (21739) 526
B(UO2LF3)=13.80
Method: 19F nmr.

UO2++ gl NaClO4 25°C 1.00M C K1=9.43 B2=17.55 1994LSa (21740) 527

UO2++ gl NaClO4 25°C 1.00M C H K1=1.16 B2=2.20 1983BRa (21741) 528
DH(K1)=3.9, DH(K2)=0.9 kJ mol-1

UO2++ oth NaClO4 35°C 0.10M C K1=7.88 1983PYa (21742) 529
B3=18.93
Method: paper electrophoresis.

UO2++ vlt KCl 30°C 0.50M C K1=1.58 1982CKb (21743) 530
Method: polarography.

UO2++ vlt NaClO4 30°C 0.10M U T 1979RRa (21744) 531
K(UO2+2HL)=2.14

UO2++ gl NaClO4 31°C 0.10M U M K1=7.53 B2=14.68 1977SSb (21745) 532
B(UO2L(Malonate))=12.06
B(UO2L(Diglycolate)=11.71
B(UO2L(Maleate))=12.67
B(UO2L(Glycolate))=11.11
B((UO2)L(Thiodiglycolate))=10.45

```
--------------------------------------------------------------------------------
UO2++      EMF oth/un 25°C 0.50M U        K1=7.15        1973SKb (21746) 533
By spectrophotometry: K1=7.34
--------------------------------------------------------------------------------
UO2++      gl  KCl    30°C 0.10M U      T K1=7.53   B2=14.68  1962CTb (21747) 534
********************************************************************************
C2H5NO2                HL    Acetohydroxamic  CAS 546-88-3  (2766)
Acetohydroxamic acid, N-Hydroxyacetamide; CH3.CO.NHOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaCl   25°C 0.15M U  I     K1=7.63   B2=14.25  1995SKb (21816) 535
Also data for 42% MeOH/H2O, 52% EtOH/H2O, 59% isopropanol/H2O and
61% dioxane/H2O.
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M C        K1=8.22   B2=15.30  1989KUb (21817) 536
********************************************************************************
C2H5O5P               H3L                     CAS 4408-78-0  (4225)
Phosphonoethanoic acid; HOOC.CH2.PO3H2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      dis NaClO4 25°C  0.1M C                        1993NAa (21896) 537
                                        K(UO2+H+HL)=7.57
                                        K(UO2+HL)=6.06
                                        K(UO2+2H+2HL)=14.17
                                        K(UO2+2HL)=10.80
********************************************************************************
C2H6N2O                 L    Glycinamide      CAS 598-41-4  (60)
2-Aminoethanoic acid amide; H2N.CH2.CO.NH2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  oth/un 25°C 0.15M U        K1=5.15        1957LDa (21955) 538
********************************************************************************
C2H6N2O                HL    Acetamidoxime    CAS 22059-22-9  (818)
Acetamidoxime; CH3.C(:N.OH).NH2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M C                        1986HKa (21959) 539
                                        B(UO2H-1L)=-0.97
                                        B(UO2H-2L2)=-4.4
********************************************************************************
C2H6N2O2               HL                      CAS 5549-80-4  (833)
2-Amino-N-hydroxyacetamide, Glycine hydroxamic acid; H2N.CH2.CO.NH.OH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M C        K1=10.45  B2=18.95  1989KUb (21995) 540
```

```
**************************************************************************
C2H6OS                HL                    CAS 60-24-2  (841)
2-Mercaptoethanol; HS.CH2.CH2.OH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
UO2++      gl  NaClO4 10°C 0.10M U T      K1=8.05   B2=15.13  1977SKe (22084) 541
At 20 C: K1=7.73, K2=6.80; 30 C: 8.088, 7.03
**************************************************************************
C2H6OS                 L    DMSO          CAS 67-68-5  (329)
Dimethylsulfoxide; (CH3)2.SO
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
UO2++      sp  non-aq 25°C 100%  U    M                  1976DBa (22129) 542
                                      K((UO2A2)2+2L=2UO2A2L)=0.06
HA=tropolone. Medium: benzene
**************************************************************************
C2H6O6P2             H4L                    (5706)
Ethene-1,1-diphosphonic acid; H2C:C(PO3H2)2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
UO2++      dis NaClO4 25°C  0.1M C                       1993NAa (22177) 543
                                      K(UO2+H+H2L)=7.64
                                      K(UO2+2H+2H2L)=13.82
                                      K(UO2+2H2L)=11.27
**************************************************************************
C2H7NO3S              HL    Taurine         CAS 107-35-7  (2214)
2-Aminoethane sulfonic acid; H2N.CH2.CH2.SO3H
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
UO2++      gl  alc/w  25°C  50%  C        K1=7.68   B2=14.60  1978MCa (22440) 544
**************************************************************************
C2H8N2                 L    Ethylenediamine  CAS 107-15-7  (23)
1,2-Diaminoethane; H2N.CH2.CH2.NH2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
UO2++      ISE non-aq 25°C 100%  C   H    K1=3.88   B2=5.88   1990CDa (23243) 545
Medium: DMSO, 0.1 M Et4NClO4. DH(K1)=-41.4, DH(B2)=-76.7 kJ mol-1,
DS(K1)=-64, DS(B2)=-145 J K-1 mol-1
--------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U    M   K1=9.02        1985VSb (23244) 546
                                      B(UO2AL)=12.97
                                      K(UO2A+L)=7.84
                                      K(UO2L+A)=3.95
H2A=phthalic acid
**************************************************************************
```

C2H8O6P2 H4L CAS 6145-31-9 (2579)
1,2-Ethylenediphosphonic acid; H2O3P.CH2.CH2.PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	dis	NaClO4	25°C	0.1M	C			1993NAa (23260)	547
							K(UO2+H2L)=5.34		
							K(UO2+2H2L)=8.31		

****

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
UO2++	dis	NaClO4	25°C	0.1M	C			1993NAa (23402)	548
							K(UO2+H+H2L)=7.99		
							K(UO2+2H+2H2L)=14.53		
							K(UO2+2H2L)=11.76		

****

C3H4O2 HL Acrylic acid CAS 79-10-7 (2044)
Propenoic acid; CH2:CH.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	NaClO4	25°C	0.10M	U		K1=2.77	1988GAc (23998)	549

Additional method: polarography.

****

C3H4O3 HL Pyruvic acid CAS 127-17-3 (1152)
2-Oxopropanoic acid; CH3.CO.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	NaClO4	25°C	0.11M	U	TIH	K1=1.79 B2= 3.57	1984GMc (24076)	550

Data for 30-50 C. Data for 0.03-0.11 M NaClO4. At I=0.0 M, K1=2.39
K2=2.11; DH(K1)=30.6 kJ mol-1, DS(K1)=172 J K-1 mol-1.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	NaClO4	31°C	0.10M	C	M		1975BSa (24077)	551
							B((UO2)LA)=8.32		
							K(UO2L2+UO2A=UO2LA+UO2L)=2.54		
							K(UO2L+A)=6.17		
							K(UO2A+L)=3.13		

H2A=maleic acid

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	NaClO4	31°C	0.10M	C	M		1975BSa (24078)	552
							B((UO2)LA)=5.88		
							K(UO2L2+UO2A=UO2LA+UO2L)=2.24		
							K(UO2L+A)=3.73		
							K(UO2A+L)=2.83		

H2A=fumaric acid

```
UO2++      gl  NaClO4 31°C 0.10M C    M                  1975BSa (24079) 553
                                       B((UO2)LA)=6.94
                                       K(UO2L2+UO2A=UO2LA+UO2L)=1.88
                                       K(UO2L+A)=4.79
                                       K(UO2A+L)=2.46
H2A=succinic acid
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M C    M                  1975BSa (24080) 554
                                       B((UO2)LA)=7.28
                                       K(UO2L2+UO2A=UO2LA+UO2L)=2.61
                                       K(UO2L+A)=5.13
                                       K(UO2A+L)=3.20
H2A=adipic acid
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M C    M                  1975BSa (24081) 555
                                       B((UO2)LA)=6.69
                                       K(UO2L2+UO2A=UO2LA+UO2L)=2.39
                                       K(UO2L+A)=4.54
                                       K(UO2A+L)=2.98
H3A=thiomalic acid
-------------------------------------------------------------------------------
UO2++      sp  NaClO4 30°C 0.10M U      K1=2.71   B2=5.33   1969RRa (24082) 556
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U      K1=2.15   B2=2.74   1968RSa (24083) 557
*******************************************************************************
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
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.10M M    M   K1=5.56          1987NCa (24575) 558
                                       K(UO2(nta)+L)=4.29
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M M  I     K1=5.56   B2= 9.36  1985ARc (24576) 559
Also data for 20-80% dioxane/H2O. For 40% dioxane/H2O, K1=7.41, K2=5.50.
-------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.20M U T                     1985KMc (24577) 560
                                       K(UO2A+L)=4.66
H2A=iminodiacetic acid; 5 C:K=4.92; 45 C: K=4.43, DH=-23.0 kJ mol-1,
DS=12 J K-1 mol-1
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M C  I     K1=5.56   B2= 9.36  1978SJb (24578) 561
Data for 20-80% v/v dioxane/H2O, 0.03-0.11 M NaClO4.
In 40% dioxane/H2O, K1=7.41, K2=5.50.
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 1.00M U      K1=5.42   B2=9.48   1977BNa (24579) 562
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U    M   K1=5.20   B2=9.21   1977SSb (24580) 563
                                       B(UO2L(Ala))=13.19
                                       K(ML2+M(Ala)2=2ML(Ala))=1.77
```

```
--------------------------------------------------------------------------------
UO2++      EMF NaClO4 31°C 0.10M U                      1974BSa (24581) 564
                                        B((UO2)L(succinate))=9.23
                                        B((UO2)L(glutarate))=8.59
                                        B((UO2)L(adipate))=8.21
                                        B((UO2)L(thiomalate))=8.9
B(UO2+L+diglycollate)=9.60.
--------------------------------------------------------------------------------
UO2++      oth oth/un   ?     ?  U                      1971GPa (24582) 565
                                        K((UO2)2O2+2L)=4.48
From survey of literature data
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.50M U        K1=5.66   B2=9.66   1969VOb (24583) 566
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U        K1=5.28   B2=9.29   1968RSa (24584) 567
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.20M U        K1=4.88   B2=8.63   1967AMa (24585) 568
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 1.00M U        K1=5.66   B2=9.66   1967RMc (24586) 569
********************************************************************************
C3H5O2Cl               HL                      CAS 107-94-8  (1436)
3-Chloropropanoic acid; Cl.CH2.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 1.00M C   H    K1=2.056  B2=3.580  1974PBa (24736) 570
                                        B3=5.18
DH(K1)=2.70, DH(B2)=2.30 and DH(B3)=0.00 kJ mol-1, obtained via calorimetry.
--------------------------------------------------------------------------------
UO2++      EMF NaClO4 20°C 1.00M U        K1=2.05   B2=3.55   1972MPa (24737) 571
                                        B3=4.98
********************************************************************************
C3H6N6                  L    Melamine         CAS 108-78-1  (889)
2,4,6-Triamino-1,3,5-triazine, sym-Triaminotriazine; C3N3(NH2)3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U        K1=3.50   B2=6.66   1981JKa (24839) 572
********************************************************************************
C3H6OS                 HL                      CAS 1892-31-5  (3550)
Thiopropanoic acid; CH3.CH2.CO.SH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaClO4   ?  0.00  U        K1=3.7    B2=11.10  1968MNa (24861) 573
********************************************************************************
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
```

```
---------------------------------------------------------------------------
UO2++      vlt KCl    30°C 0.50M C        K1=2.85   B2= 5.20  1982CKb (25064) 574
                                          B3=7.20
Method: polarography.
---------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M C    M                 1975BSa (25065) 575
                                          B((UO2)LA)=10.70
                                          K(UO2L2+UO2A=UO2LA+UO2L)=3.66
                                          K(UO2L+A)=5.42
                                          K(UO2A+L)=7.67
H2A=malonic acid
---------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M C    M                 1975BSa (25066) 576
                                          B((UO2)LA)=7.65
                                          K(UO2L2+UO2A=UO2LA+UO2L)=0.14
                                          K(UO2L+A)=3.17
                                          K(UO2A+L)=4.62
H2A=succinic acid
---------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M C    M                 1975BSa (25067) 577
                                          B((UO2)LA)=7.69
                                          K(UO2L2+UO2A=UO2LA+UO2L)=1.97
                                          K(UO2L+A)=3.99
                                          K(UO2A+L)=4.66
H2A=glutaric acid
---------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M C    M                 1975BSa (25068) 578
                                          B((UO2)LA)=7.21
                                          K(UO2L2+UO2A=UO2LA+UO2L)=0.10
                                          K(UO2L+A)=3.13
                                          K(UO2A+L)=4.18
H2A=adipic acid
---------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M C    M                 1975BSa (25069) 579
                                          B((UO2)LA)=7.32
                                          K(UO2L2+UO2A2=2UO2LA)=0.58
                                          K(UO2L+A)=3.61
                                          K(UO2A+L)=4.29
H3A=thiomalic acid
---------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M C    M                 1975BSa (25070) 580
                                          B((UO2)LA)=10.15
                                          K(UO2L2+UO2A=UO2LA+UO2L)=4.28
                                          K(UO2L+A)=5.25
                                          K(UO2A+L)=7.12
H2A=diglycollic acid
---------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U        K1=3.03        1968RSa (25071) 581
---------------------------------------------------------------------------
UO2++      sp  NaClO4 20°C  1.0M U        K1=2.53   B2=4.68   1967MNd (25072) 582
```

K3=1.81
K4=1.76

UO2++ vlt NaNO3 ? 1.0M U 1962HOa (25073) 583
K(U(V)O2L+UO2=UO2L+U(V)O2)=4.7
K'=5.2
K': U(V)O2L2)+UO2=UO2L2+U(V)O2

****

C3H6O2S HL CAS 2444-37-3 (1074)
(Methylthio)ethanoic acid; CH3.S.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	vlt	KNO3	25°C	0.45M	C		K1=1.75		1985CEa (25094)	584

Method: differential pulse polarography, using anodically generated Hg++ as indicator ion.

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	NaClO4	20°C	0.10M	U	T	K1=8.36	B2=15.73	1974SSa (25177)	585

At 30 C: K1=8.72, B2=16.13; 40 C: K1=9.20, B2=16.62

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	NaClO4	30°C	0.10M	U		K1=3.25		1973RSa (25232)	586

****

C3H6O3 HL CAS 81598-26-7 (2521)
3-Hydroxypropanoic acid; HO.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	NaClO4	30°C	0.12M	U		K1=2.74	B2=4.94	1962CMb (25282)	587
							K3=2			
UO2++	gl	KCl	30°C	0.10M	U		K1=3.25	B2=6.13	1962CTb (25283)	588

****

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
UO2++	dis	NaCl	25°C	0.30M	C	I	K1=2.60		1999MBb (25560)	589

Method: Solvent extraction into n-heptane, 0.05 M di-(2-ethylhexyl)-phosphoric acid. Data for 0.3-5.0 m NaCl. At I=0.0, K1=3.16.

```
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 1.00M C        K1=2.68   B2=4.47   1984LLa (25561) 590
                                         B3=5.64
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 20°C 1.00M C      T K1=2.77   B2=4.52   1974MTa (25562) 591
                                         B3=5.78
--------------------------------------------------------------------------------
UO2++      sp  NaClO4 20°C  1.0M U        K1=2.43   B2=4.49   1967MNd (25563) 592
                                         K3=1.86
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C  1.0M U        K1=2.77   B2=4.45   1967TGa (25564) 593
                                         K3=1.33
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U        K1=2.48        1967VAa (25565) 594
                                         K(UO2(OH)L+H)=4.0
                                         K(2UO2L=(UO2(OH)L)2+2H)=-5.13
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.12M U        K1=3.36   B2=5.56   1962CMb (25566) 595
                                         K3=2
--------------------------------------------------------------------------------
UO2++      dis NaClO4 20°C  1.0M U        K1=2.81   B2=4.56   1962SBb (25567) 596
                                         B3=5.46
********************************************************************************
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
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.20M U    M   K1=7.79   B2=15.18  1992SSf (26284) 597
                                         K(UO2(ida)+L)=7.36
                                         K(UO2(nta)+L)=7.34
                                         K(UO2(edta)+L)=6.74
                                         K(UO2(cdta)+L)=6.70
K(UO2(dtpa)+L)=5.84; K(UO2(hedta)+L)=6.94.
hedta is N-(2-hydroxyethyl)-1,2-diaminoethane-N,N',N'-triethanoic acid
--------------------------------------------------------------------------------
UO2++      vlt KCl    30°C 0.50M C        K1=1.54        1982CKb (26285) 598
Method: polarography.
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U      T K1=7.33   B2=14.97  1982NMa (26286) 599
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U      T                1980RRa (26287) 600
                                         K(UO2+HL)=2.03
--------------------------------------------------------------------------------
UO2++      vlt NaClO4 30°C 0.10M U      R                1979RRa (26288) 601
                                         K(UO2+2HL)=2.15
--------------------------------------------------------------------------------
UO2++      EMF oth/un 25°C 0.50M U        K1=7.0         1973SKb (26289) 602
By spectrophotometry, K1=7.0
--------------------------------------------------------------------------------
```

UO2++ EMF oth/un ? ? U K1=9.00 1970FMb (26290) 603

****

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
UO2++	gl	KNO3	25°C	0.20M	U	M	K1=7.70	B2=14.79	1992SSf (26485)	604
							K(UO2(ida)+L)=7.35			
							K(UO2(nta)+L)=7.21			
							K(UO2(edta)+L)=6.73			
							K(UO2(cdta)+L)=6.35			

K(UO2(dtpa)+L)=5.80; K(UO2(hedta)+L)=6.85.
hedta is N-(2-hydroxyethyl)-1,2-diaminoethane-N,N',N'-triethanoic acid

---

UO2++	gl	NaClO4	25°C	1.0M	U	H T	K1=1.93	B2=3.44	1987BRa (26486)	605
							B3=4.82			

DH1 = 6.5, DH(B2) = 12.0, DH(B3) = 11.3, DS1 = 59, DS(B2) = 106, DS(B3) =130

UO2++	oth	NaNO3	35°C	0.10M	U	M			1985VSa (26487)	606
							K(UO2(NTA)+L)=5.12			

By electrophoresis.

UO2++	gl	NaClO4	30°C	0.10M	U	T			1980RRa (26488)	607
							K(UO2+HL)=2.44			

UO2++	vlt	NaClO4	30°C	0.10M	U	T			1979RRa (26489)	608
							K(UO2+2HL)=3.49			

UO2++	gl	NaClO4	30°C	0.10M	U		K1=9.20		1973RSa (26490)	609

UO2++	EMF	oth/un	25°C	0.50M	U		K1=7.86		1973SKb (26491)	610

By spectrophotometry, K1=7.93

UO2++	EMF	oth/un	?	?	U		K1=9.90		1970FMb (26492)	611

UO2++	gl	KCl	30°C	0.10M	U		K1=7.78	B2=15.31	1962CTb (26493)	612

****

C3H7NO2 HL DL-Alanine CAS 302-72-7 (189)
DL-2-Aminopropanoic acid; H2N.CH(CH3).COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	EMF	NaClO4	31°C	0.10M	U		K1=8.55	1977RRa (26543)	613

****

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

```
UO2++      gl  KNO3   35°C 0.10M U                        1997RVa (26847) 614
                                          K(UO2+HL)=6.53
--------------------------------------------------------------------------
UO2++      gl  NaNO3  15°C 0.10M U T      K1=13.80  B2=22.50  1984IDa (26848) 615
At 30 C, K1=13.65, K2=8.55.
--------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U        K1=5.84   B2=11.85  1982NMa (26849) 616
--------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U        K1=9.04        1973RSa (26850) 617
**************************************************************************
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
--------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M M    M   K1=8.41        1996AEa (27188) 618
Data for ternary complexes with dipicolinic acid.
--------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U        K1=8.66   B2=14.66  1982NMa (27189) 619
--------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U        K1=7.60   B2=14.75  1973RSa (27190) 620
--------------------------------------------------------------------------
UO2++      EMF oth/un 25°C 0.50M U        K1=5.90        1973SKb (27191) 621
--------------------------------------------------------------------------
UO2++      sp  oth/un 25°C 0.50M U        K1=3.42        1973SKb (27192) 622
--------------------------------------------------------------------------
UO2++      EMF oth/un   ?     ?  U        K1=6.90        1970FMb (27193) 623
**************************************************************************
C3H7N3O2               HL    Glycocyamine     CAS 352-97-6  (2909)
Guanidinethanoic acid; H2NC(:NH)NH.CH2.COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
UO2++      gl  alc/w  25°C  50%  C        K1=9.50   B2=18.18  1978MCa (27285) 624
**************************************************************************
C3H9O6P               H2L                   CAS 57-03-4  (2984)
2,3-Dihydroxypropylphosphoric acid,  Glycerol 1-phosphate; HO.CH2.CH(OH).CH2.OPO3H2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.10M M        K1=6.23   B2=10.22  2004KBa (28051) 625
**************************************************************************
C3H10N2                 L                   CAS 78-90-0  (2905)
1,2-Diaminopropane; CH3.CH(NH2)CH2.NH2
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
UO2++      cal non-aq 25°C 100%  C   H    K1=1.15        1990CDa (28171) 626
Medium: DMSO, 0.1 M Et4NClO4. DH(K1)=-41 kJ mol-1, DS=-117 J K-1 mol-1
**************************************************************************
```

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	R4N.X	25°C	0.10M	C		K1=24.8 B2=32.4	1994BRa (28416)	627
							K(UO2(OH)L+H)=10.7		
							K(UO2(OH)2L+H)=12.0		
							K(UO2L+H)=9.8		
							K(UO2HL+H)=5.3		

Medium: Me4NNO3. K(UO2H2L2+H)=7.4, K(UO2H3L2+H)=5.0

****

C4H2O4 H2L Squaric acid CAS 2892-51-5 (439)
3,4-Dihydroxy-3-cyclobutene-1,2-dione;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	NaClO4	25°C	0.50M	U		K1=3.08	1969TWa (28670)	628

****

C4H4N2O2S H2L Thiobarbituric CAS 504-17-6 (4279)
4,6-Dihydroxy-2-mercaptopyrimidine, 2-thiobarbituric acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	alc/w	25°C	100%	U	I		1968PPb (28898)	629
							K(?)=4.6		

Medium: EtOH. In MeOH, K(?)=4.1

****

C4H4N2O3 H2L Barbituric acid CAS 67-52-7 (2818)
2,4,6-Trihydroxypyrimidine; C4HN2(OH)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	alc/w	rt	100%	U	I	B2=9.2	1968PPb (28921)	630

Solvent: EtOH. In MeOH, K(?)=3.7

****

C4H4N6 L 8-Azaadenine CAS 1123-54-2 (1884)
8-Aza-6-aminopurine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	KNO3	35°C	0.10M	U	M	K1=4.20	1982RKa (28956)	631
							K(UO2(EDTA)+L)=3.18		
							K(UO2(EDTA)L+H)=5.91		

****

C4H4N6O L 8-Azaguanine CAS 134-58-7 (114)
2-Amino-6-hydroxy-8-azapurine;

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

UO2++ gl alc/w 25°C 50% U K1=9.69 1978MCb (28964) 632

****

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
UO2++	sp	oth/un	25°C	?	U		K1=4.05	B2=6.15	1985GGa (29145)	633
UO2++	gl	KNO3	25°C	0.20M	U	T	K(UO2A+L)=5.12		1985KMc (29146)	634
UO2++	gl	KNO3	25°C	0.10M	U	M	K1=4.80 B(UO2LA)=9.05 K(UO2A+L)=3.92 K(UO2L+A)=4.25		1985VSb (29147)	635
UO2++	gl	NaClO4	31°C	0.10M	U	M	K1=5.20 B(UO2L(Ala))=13.30		1977SSb (29148)	636
UO2++	gl	NaClO4	31°C	0.10M	U	M	B((UO2)L(glycollate))=8.31		1976SSa (29149)	637
UO2++	gl	NaClO4	31°C	0.10M	U	M	B((UO2)L(malonate))=8.13		1976SSa (29150)	638
UO2++	EMF	NaClO4	31°C	0.10M	U		B((UO2)L(succinate))=8.42 B((UO2)L(glutarate))=8.27 B((UO2)L(adipate))=8.01 B((UO2)L(thiomalate))=8.7		1974BSa (29151)	639
UO2++	gl	NaClO4	31°C	0.10M	U		K1=5.15		1968RSa (29152)	640
UO2++	gl	KNO3	25°C	1.00M	U		K1=4.46		1967RMc (29153)	641
UO2++	gl	KNO3	25°C	1.0M	U		K1=4.45		1964PCa (29154)	642

H2A=iminodiacetic acid; 5 C:K=5.38; 45 C: K=4.88, DH=-18.3 kJ mol-1, DS=34 J K-1 mol-1

H2A=phthalic acid

****

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
UO2++	gl	KNO3	25°C	0.20M	U	T	K(UO2A+L)=3.82		1985KMc (29225)	643

H2A=iminodiacetic acid; 5 C:K=3.94; 45 C: K=3.72, DH=-8.4 kJ mol-1, DS=46 J K-1 mol-1

```
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U    M   K1=3.47        1985VSb (29226) 644
                                          B(UO2AL)=6.15
                                          K(UO2A+L)=1.02
                                          K(UO2L+A)=2.68
H2A=phthalic acid
--------------------------------------------------------------------------------
UO2++      EMF NaClO4 31°C 0.10M U    M                  1974BSa (29227) 645
                                          B((UO2)L(succinate))=6.73
                                          B((UO2)L(adipate))=6.56
                                          B((UO2)L(thiomalate))=6.9
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U        K1=3.05        1968RSa (29228) 646
********************************************************************************
C4H5N3O                HL    Cytosine         CAS 71-30-7  (1096)
2-Oxy-6-aminopyrimidine;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  KNO3   35°C 0.10M U        K1=10.42       1982RKa (29420) 647
                                          K(UO2+HL)=3.70
********************************************************************************
C4H5O4Cl              H2L                    CAS 16045-92-4  (2232)
Chlorosuccinic acid; HOOC.CH(Cl).CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M M  I     K1=3.57   B2= 6.52  1985ARc (29438) 648
Also data for 20-80% dioxane/H2O. For 40% dioxane/H2O, K1=6.42, K2=4.26.
********************************************************************************
C4H6O2                 HL    Crotonic acid    CAS 107-93-7  (2990)
But-2-enoic acid; CH3.CH:CH.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.10M U        K1=2.98        1983GAa (29726) 649
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U        K1=2.74   B2=5.27   1968RSa (29727) 650
********************************************************************************
C4H6O2Br2              HL                     CAS 41459-42-1  (6308)
3-Bromo-2-(bromomethyl)-propanoic acid; BrCH2.CH(CH2Br).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U        K1=3.49        1976RRb (29735) 651
********************************************************************************
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
```

UO2++ gl NaClO4 30°C 0.50M U K1=3.54 B2= 6.06 1990PNa (30058) 652

UO2++ gl NaClO4 25°C 0.10M M M K1=4.48 1987NCa (30059) 653
K(UO2(nta)+L)=3.23

UO2++ gl NaClO4 30°C 0.10M M I K1=4.48 B2= 7.78 1985ARc (30060) 654
Also data for 20-80% dioxane/H2O. For 40% dioxane/H2O, K1=6.89, K2=4.85.

UO2++ gl KNO3 25°C 0.20M U T HM 1985KMc (30061) 655
K(UO2A+L)=3.80
H2A=iminodiethanoic acid; 5 C:K=3.92; 45 C: K=3.72. DH=-9.6 kJ mol-1,
DS=42 J K-1 mol-1

UO2++ vlt KCl 20°C 0.60M U T H K1=2.00 B2=2.30 1985SKb (30062) 656
B3=3.14
30 C, K1=1.78, B2=2.70. 40 C, K1=1.65, B2=2.53. DH(K1)=-30.5 kJ mol-1,
DH(K2)=20.0

UO2++ gl KNO3 25°C 0.10M U M K1=4.38 1985VSb (30063) 657
B(UO2AL)=8.51
K(UO2A+L)=3.38
K(UO2L+A)=4.13
H2A=phthalic acid

UO2++ gl NaClO4 25°C 1.0M U H K1=3.85 1981BCg (30064) 658
B(UO2HL)=7.41
B(UO2HL2)=11.28
By calorimetry: DH(K1)=21.7 kJ mol-1, DS(K1)=146 J K-1 mol-1; DH(UO2HL)=
8.28, DS(UO2HL)=170; DH(UO2HL2)=13.6, DS(UO2HL2)=262.

UO2++ gl NaClO4 30°C 0.10M U K1=4.48 1973KJa (30065) 659

UO2++ gl NaClO4 31°C 0.10M U M 1971RBc (30066) 660
K(UO2+L+HA)=7.67
K(UO2+L+B)=7.87
K(UO2+L+C)=8.00
K(UO2+L+D)=8.66
H2A=4-hydroxybenzoic acid; HB=benzoic acid; HC=phenylacetic acid
HD=phenoxyacetic acid

UO2++ gl NaClO4 31°C 0.10M U M K1=4.48 1970RSb (30067) 661
K(UO2+L+A)=7.23
K(UO2+L+B)=5.87
K(UO2+L+C)=6.87
H2A=adipic acid, H2B=thiomalic acid, H2C=itaconic acid

UO2++ gl KNO3 25°C 0.50M U K1=3.87 1969VOb (30068) 662
K(UO2+HL)=2.13

UO2++ gl NaClO4 31°C 0.10M U K1=4.48 1968RSa (30069) 663

UO2++ sp NaClO4 20°C 1.0M U 1967MNd (30070) 664
K(UO2+HL)=2.53

UO2++ gl KNO3 25°C 1.00M U K1=3.68 1967RMc (30071) 665
separation of solid phase.

UO2++ gl KNO3 25°C 0.20M U 1963FKa (30072) 666
K(UO2+HL)=2.62

****

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

---

UO2++ gl diox/w 30°C 40% M I K1=9.95 B2=16.68 1985ARc (30141) 667
Medium: 0.10 M NaClO4 in 40% dioxane/H2O. Also data for 20, 60 and 80% dioxane/H2O.

UO2++ gl KNO3 25°C 0.50M U K1=5.56 B2=9.53 1969VOb (30142) 668
K(UO2L=UO2LOH+H)=-5.55

****

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

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

---

UO2++ vlt KNO3 25°C 0.20M C K1=3.11 1985CEa (30235) 669
Method: differential pulse polarography, using anodically generated Hg++ as indicator ion.

UO2++ gl NaClO4 30°C 0.10M U T K1=3.43 1981SJb (30236) 670
At 20 C: K1=3.37; 40 C: 3.48

UO2++ gl NaClO4 30°C 0.10M U M K1=3.43 1981SJc (30237) 671
B((UO2)L(malonate))=8.44
B((UO2)L(succinate))=6.71
B((UO2)L(itaconate))=7.55
B((UO2)L(glutarate))=6.44
B(M+L+adipic acid)=6.25.

UO2++ gl NaClO4 25°C 1.00M U H K1=2.97 1980BTa (30238) 672
B((UO2)HL)=5.43
B((UO2)HL2)=8.39
DH(K1)=14.8, DH(MHL)=17.8 and DH(MHL2)=25.7 kJ mol-1.
Alternative method: Calorimetry.

UO2++ gl NaClO4 30°C 0.10M U M K1=3.43 1978SJa (30239) 673
B((UO2)L(Asp))=7.96

```
                                        B((UO2)L(Glu))=7.55
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U    M   K1=2.52   B2=4.49   1977SSb (30240) 674
                                        B(UO2L(Ala))=11.49
                                        K(ML2+M(Ala)2=2ML(Ala))=3.19
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 20°C 1.00M U        K1=3.16        1973CBc (30241) 675
                                        K(UO2+HL+L)=4.38
********************************************************************************
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
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M M  I     K1=3.70   B2= 6.35  1985ARc (30370) 676
Also data for 20-80% dioxane/H2O. For 40% dioxane/H2O, K1=6.05, K2=4.38.
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U T      K1=3.70        1981SJb (30371) 677
Data also for 20 and 40 C
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U    M   K1=3.70        1978SJa (30372) 678
                                        B((UO2)L(Asp))=8.94
                                        B((UO2)L(Glu))=8.81
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U    M                  1971RSa (30373) 679
                                        K(UO2+HL+A)=7.38
                                        K(UO2+HL+B)=8.18
                                        K(UO2+HL+C+A)=9.32
                                        K(UO2+HL+A+B)=9.29
H2A=adipic acid; HB=itaconic acid; H2C=succinic acid
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U                       1968RSa (30374) 680
                                        K(UO2+HL)=3.71
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 45°C 0.10M U T                     1968RSf (30375) 681
                                        K(UO2+HL)=3.91
At 31 C: K=3.82
--------------------------------------------------------------------------------
UO2++      sp  oth/un  5°C    ?  U                       1963MNb (30376) 682
                                        K(UO2+HL)=3.0
--------------------------------------------------------------------------------
UO2++      gl  KCl    30°C 0.10M U                       1962CTb (30377) 683
                                        K(UO2+HL)=3.56
                                        K(UO2HL+HL)=3.42
********************************************************************************
C4H6O4S2              H4L                    CAS 2418-14-6  (4264)
2,3-Dimercaptobutanedioic acid; HOOC.CH(SH).CH(SH).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
```

UO2++ gl diox/w 30°C 40% M I K1=6.09 B2=10.11 1985ARc (30398) 684
Medium: 0.10 M NaClO4 in 40% dioxane/H2O. Also data for 20, 60 and 80% dioxane/H2O.

****

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

---

UO2++ gl diox/w 30°C 40% M I K1=8.26 B2=14.36 1985ARc (30746) 685
Medium: 0.10 M NaClO4 in 40% dioxane/H2O. Also data for 20, 60 and 80% dioxane/H2O.

UO2++ gl KNO3 25°C 0.20M U T HM 1985KMc (30747) 686
K(UO2A+L)=5.04
H2A=iminodiethanoic acid; 5 C:K=5.22; 45 C: K=4.85. DH=-15.0 kJ mol-1, DS=46 J K-1 mol-1

UO2++ sp NaNO3 25°C 0.50M U K1=18.35 1978KPc (30748) 687
B((UO2)HL)=19.8
B((UO2)2L2)=38.03
B((UO2)3L5)=79.50
B((UO2)3H-2L5)=57.70
Malic acid defined as H3L with protonation constants K1=15.46, K2=4.49, K3=3.14

UO2++ dis oth/un 25°C ? U 1972MKc (30749) 688
K(2UO2L=(UO2L)2)=7.0

UO2++ gl oth/un 25°C ? U 1972MKc (30750) 689
K(UO2+H2L=UO2H-1L+3H)=-7.40

UO2++ dis oth/un 25°C ? U 1970AKa (30751) 690
K(2UO2L=(UO2L)2)) > 7
Keff(InL2+0.5(UO2L)2=InUO2L2+L)=1.49 pH 4

UO2++ gl KNO3 25°C 1.0M U 1964PCa (30752) 691
K(UO2+H2L=UO2H-1L+3H)=-5.55
K(2UO2H-1L=(UO2)2H-2L2)=3.35

UO2++ gl KNO3 25°C 1.0M U 1964RMb (30753) 692
K(UO2+L=UO2H-1L+H)=1.66
K(UO2+H2L=UO2H-1L+3H)=-5.55
K((UO2)2(H-1L)2(OH)+H)=6.1
K(2UO2+2H2L=(UO2)2(H-1L)2+6H)=-7.75, K(2(UO2)3(H-1L)3(OH)2=3(UO2)2(H-1L)2)=19.35

UO2++ gl KCl 30°C 0.10M U K1=5.50 B2=9.13 1962CTb (30754) 693

****

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
UO2++	gl	NaClO4	25°C	1.00M	U	H	K1=5.11 B2=7.54 B((UO2)HL2)=10.03	1980BTa (30942)	694

DH(K1)=29.17, DH(B2)=23.5 and DH(MHL2)=16.86 kJ mol-1.
Alternative method: Calorimetry.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	NaClO4	31°C	0.10M	U	M	K1=4.90 B2=7.74 B(UO2L(Ala))=12.78 K(ML2+M(Ala)2=2ML(Ala))=2.51	1977SSb (30943)	695
UO2++	gl	NaClO4	20°C	1.00M	U		K1=5.11	1973CBc (30944)	696
UO2++	gl	NaClO4	31°C	0.10M	U		K1=4.90 B2=7.74	1968RSa (30945)	697

****

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
UO2++	sp	NaClO4	20°C	0.05M	C		K1=3.30	1989RAb (31381)	698

Medium: 0.05 M NaClO4/HClO4.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	oth	NaClO4	40°C	0.10M	C		K1=4.91 *K(UO2H2L)=-4.6 K(2UO2HL=(UO2)2L2+2H)=-9.4	1982SYb (31382)	699

Method: paper electrophoresis. Medium: 0.10 M HClO4.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	oth	oth/un	40°C	0.10M	U	M	B((UO2)2L2(NTA)2)=-3.56	1981YSa (31383)	700

Method: paper electrophoresis

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	dis	oth/un	25°C	?	U		K(2UO2L=(UO2)2L2)=5.7 K(UO2+H2L=UO2H-1L+3H)=-6.85	1972MKc (31384)	701
UO2++	dis	oth/un	25°C	?	U		see comment K(2UO2L=(UO2L)2)=6.7	1970AKa (31385)	702

K'(InL2+0.5(UO2L)2=InUO2L2+L)=1.49, conditional constant

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	KNO3	25°C	1.0M	U		K(UO2+H2L=UO2H-1L+3H)=-5.62 K(2UO2H-1L=(UO2)2H-2L2)=3.24	1964PCa (31386)	703
UO2++	gl	KNO3	25°C	1.0M	U		K(UO2+L=UO2H-1L+H)=0.75 K(UO2+H2L=UO2H-1L+3H)=-5.62	1964RMb (31387)	704

```
                                        K((UO2)2(H-1L)2(OH)+H)=5.26
                                        K((UO2)3(H-1L)3(OH)2+4H)=17.91
K(2UO2+2H2L=(UO2)2(H-1L)2+6H)=-8.00
--------------------------------------------------------------------------------
UO2++      dis NaClO4 20°C 0.10M U        B2=9.73        1963STc (31388) 705
********************************************************************************
C4H7NO2                HL    Acetoacetamide   CAS 2044-64-6  (1407)
3-Oxobutanamide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C  0.5M C        K1=9.48        1998HCb (31448) 706
********************************************************************************
C4H7NO3                HL                      CAS 543-24-8  (3586)
N-Acetylglycine; CH3.CO.NH.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U        K1=3.30        1973RSa (31510) 707
********************************************************************************
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
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M C        K1=8.45        2003AHa (31958) 708
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M M    M   K1=8.89        1996AEa (31959) 709
Data for ternary complexes with dipicolinic acid.
--------------------------------------------------------------------------------
UO2++      gl  NaNO3  25°C 1.10M U    M   K1=9.11        1995ADc (31960) 710
                                           K(UO2+Hegta+HL)=8.30
                                           K(UO2(Hegta)L+H)=5.94
                                           K(UO2(egta)L+H)=8.64
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M M    M                  1995JSa (31961) 711
                                           K(UO2+2HL)=3.77
                                           K(UO2+HL)=2.65
                                           B(UO2AL)=11.30
                                           B(UO2CL)=10.05
K(UO2+2HL) by polarography. B(UO2DL)=9.60, B(UO2EL)=6.60. H2A is
oxalic acid, H2C is malonic acid, H2D is succinic acid, H2E is lactic acid
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 1.00M U   H    K1=2.41   B2=4.14   1989BRc (31962) 712
DH(K1)=8.9, DH(B2)=10.5 kJ mol-1; DS(K1)=76, DS(B2)=114 J mol-1 K-1
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M M  I     K1=8.71   B2=16.11  1985ARc (31963) 713
Also data for 20-60% dioxane/H2O. For 40% dioxane/H2O, K1=10.70, K2=8.44.
--------------------------------------------------------------------------------
UO2++      dis NaCl   25°C  0.1M U        K1=3.32        1984SCa (31964) 714
```

```
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U    M   K1=8.71        1978SJa (31965) 715
--------------------------------------------------------------------------------
UO2++      EMF oth/un 25°C 0.50M U       K1=8.40        1973SKb (31966) 716
--------------------------------------------------------------------------------
UO2++      sp  oth/un 25°C 0.50M U       K1=8.62        1973SKb (31967) 717
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U T     K1=8.34        1971TMc (31968) 718
K1(40 C)=8.93; K1(50 C)=10.40
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.20M U                      1963FKa (31969) 719
                                       K(UO2+HL)=2.61
--------------------------------------------------------------------------------
UO2++      gl  KCl    30°C 0.10M U       K1=8.00        1962CTb (31970) 720
********************************************************************************
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
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.20M U       K1=13.00       1986SLb (32384) 721
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C  3.0M C       K1=9.63        1984BLb (32385) 722
                                       B((UO2)H2L2)=23.8
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U       K1=8.73   B2=17.28  1982NBa (32386) 723
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 1.00M U   H   K1=8.78        1980BTa (32387) 724
                                       B((UO2)HL)=11.19
                                       B((UO2)HL2)=19.81
                                       B((UO2)H2L2)=22.50
DH(K1)=-2.2 kJ mol-1, DH((UO2)HL)=-30.9, DH((UO2)HL2)=-50.0,  DH((UO2)H2L2)=
-52.0. Alternative method: Calorimetry.
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 20°C 1.00M U       K1=8.66        1973CBc (32388) 725
--------------------------------------------------------------------------------
UO2++      vlt NaClO4 30°C 0.15M U                      1967LCa (32389) 726
                                       K(UO2+2HL)=3.92
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C  1.0M U  I    K1=8.73        1964RMc (32390) 727
K1=8.93(I=0.1 M)
********************************************************************************
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
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M M    M   K1=8.12        1996AEa (32736) 728
Data for ternary complexes with dipicolinic acid.
--------------------------------------------------------------------------------
```

```
UO2++      gl  NaClO4 30°C 0.10M M                      1995JSa (32737) 729
                                       K(UO2+2HL)=2.47
                                       K(UO2+HL)=2.00
K(UO2+2HL) by polarography.
-------------------------------------------------------------------------------
UO2++      EMF NaClO4 31°C 0.10M U        K1=7.23        1977RRa (32738) 730
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.10M U        K1=6.79   B2=12.95  1973TSe (32739) 731
-------------------------------------------------------------------------------
UO2++      EMF oth/un   ?     ?  U        K1=6.85        1970FMb (32740) 732
*******************************************************************************
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
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C  1.0M U   H                    1992BRc (33056) 733
                                       K(UO2+HL)=1.61
                                       K(UO2+2HL)=2.99
                                       K(UO2+3HL)=3.90
DH(UO2+HL)=7.0 kJ mol-1, DS(UO2+HL)=54 J K-1 mol-1; DH(UO2+2HL)=11.5,
DS(UO2+2HL)=96; DH(UO2+3HL)=14.7, DS(UO2+3HL)=124
-------------------------------------------------------------------------------
UO2++      oth NaClO4 35°C 0.10M C    M   K1=5.40   B2= 9.00  1986SYa (33057) 734
                                       K(UO2(nta)+L)=5.15
Method: paper electrophoresis. Medium pH 8.5.
-------------------------------------------------------------------------------
UO2++      gl  KCl    25°C 0.10M U        K1=3.76   B2=10.15  1982ZZa (33058) 735
-------------------------------------------------------------------------------
UO2++      vlt NaClO4 30°C 0.10M C        K1=0.0    B2= 2.45  1980SBe (33059) 736
Method: polarography.
-------------------------------------------------------------------------------
UO2++      EMF NaClO4 31°C 0.10M U        K1=6.72        1977RRa (33060) 737
*******************************************************************************
C4H8O2                 HL    Isobutyric acid  CAS 79-31-2  (573)
2-Methylpropanoic acid; CH3.CH(CH3).COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
UO2++      vlt KCl    30°C 0.50M C        K1=2.95   B2= 5.52  1982CKb (33254) 738
                                       B3=7.61
Method: polarography.
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U        K1=3.40   B2=5.83   1980RRa (33255) 739
-------------------------------------------------------------------------------
UO2++      vlt NaClO4 30°C 0.10M U        B2=5.66        1979RRa (33256) 740
-------------------------------------------------------------------------------
UO2++      sp  NaClO4 20°C 0.10M U        K1=2.74   B2=4.94   1975KMb (33257) 741
                                       K3=1.66
-------------------------------------------------------------------------------
```

```
UO2++      EMF NaClO4 20°C 1.00M U        K1=2.48   B2=4.87   1972MPa (33258) 742
                                          B3=7.20
-------------------------------------------------------------------------------
UO2++      gl  oth/un   ?  0.10M U        K1=3.40   B2=5.83   1969RRa (33259) 743
pH=1.5-3.5
*******************************************************************************
C4H8O2                 HL                     CAS 107-92-6  (1118)
n-Butanoic acid; CH3.CH2.CH2.COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
UO2++      sp  NaClO4 20°C 0.10M U        K1=2.96   B2=5.62   1975KMb (33353) 744
                                          K3=2.43
                                          K4=2.23
-------------------------------------------------------------------------------
UO2++      EMF NaClO4 20°C 1.00M U        K1=2.58   B2=4.71   1972MPa (33354) 745
                                          B3=6.91
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U        K1=2.91   B2=4.53   1969RRa (33355) 746
pH=1.5-3.5
*******************************************************************************
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
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C  1.0M C    M                  2000SGa (33532) 747
                                          B(UO2H-1L)=<-2
                                          B(UO2H-1L2)=0.59
                                          B(UO2H-2L2)=-5.23
                                          B(UO2LF2)=10.96
B(UO2LF3)=12.96.
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 20°C 1.00M C      T K1=3.18   B2=5.13   1974MTa (33533) 748
                                          B3=6.67
-------------------------------------------------------------------------------
UO2++      EMF NaClO4 25°C  1.0M U        K1=3.02   B2=4.85   1967TGa (33534) 749
                                          K3=1.54
Method: quinhydrone electrode
*******************************************************************************
C4H8O3                 HL                     CAS 965-70-8  (423)
2-Hydroxybutanoic acid; CH3.CH2.CH(OH).COOH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U        K1=3.29   B2=4.99   1962CMb (33586) 750
-------------------------------------------------------------------------------
UO2++      dis NaClO4 20°C  1.0M U        K1=3.58   B2=5.3    1962SBb (33587) 751
                                          B3=7.01
*******************************************************************************
```

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
UO2++	gl	NaClO4	20°C	1.00M	C		K1=2.38	B2=4.35	1974MTa (33631)	752
							B3=6.25			
UO2++	gl	NaClO4	31°C	0.10M	U		K1=2.70	B2=4.10	1962CMb (33632)	753

C4H8O3 HL CAS 591-81-1 (39)
4-Hydroxybutanoic acid; HO.CH2.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	NaClO4	20°C	1.00M	C		K1=2.34	B2=4.49	1974MTa (33660)	754
							B3=6.28			

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
UO2++	gl	NaClO4	30°C	0.10M	U				1980RRa (33842)	755
							K(UO2+HL)=1.85			
UO2++	EMF	NaClO4	31°C	0.10M	U		K1=7.72		1977RRa (33843)	756

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
UO2++	gl	NaClO4	30°C	0.10M	U				1980RRa (33925)	757
							K(UO2+HL)=1.99			
UO2++	gl	KNO3	25°C	0.10M	U	TIH	K1=6.48	B2=15.06	1980SSf (33926)	758
UO2++	vlt	NaClO4	30°C	0.10M	U				1979RRa (33927)	759
							K(UO2+2HL)=2.12			

C4H9NO2 HL 4-Aminobutyric CAS 56-12-2 (574)
4-Aminobutanoic acid; H2N.CH2.CH2.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	NaClO4	25°C	1.0M	U	H	K1=2.25	B2=4.02	1987BRa (33984)	760
							B3=6.08			

DH1 = 10.6, DH(B2) = 15.5, DH(B3) = 13.0, DS1 = 79, DS(B2) = 129, DS(B3)=160

```
UO2++      gl  NaClO4 30°C 0.10M U                      1980RRa (33985) 761
                                       K(UO2+HL)=2.34
                                       K(UO2HL+HL)=2.15
-------------------------------------------------------------------------------
UO2++      vlt NaClO4 30°C 0.10M U                      1979RRa (33986) 762
                                       K(UO2+2HL)=4.44
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U       K1=9.13        1976RRb (33987) 763
*******************************************************************************
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
-------------------------------------------------------------------------------
UO2++      vlt NaClO4 25°C 0.10M C       K1=0.87        1986SPb (34331) 764
Method: polarography.
-------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M C       K1=6.65   B2=12.08  1983NMb (34332) 765
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U       K1=7.30   B2=14.20  1973RSa (34333) 766
-------------------------------------------------------------------------------
UO2++      gl  KCl    25°C 0.05M U TIH   K1=6.35   B2=12.50  1973SCe (34334) 767
Data for 0.15 and 0.25 M KCl and 45 C. At I=0, B2=12.68. DH(K1)=-21
kJ mol-1, DS(K1)=52 J K-1 mol-1; DH(K2)=-21, DS(K2)=48.
-------------------------------------------------------------------------------
UO2++      EMF oth/un 25°C 0.50M U       K1=6.00        1973SKb (34335) 768
-------------------------------------------------------------------------------
UO2++      sp  oth/un 25°C 0.50M U       K1=5.95        1973SKb (34336) 769
*******************************************************************************
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
-------------------------------------------------------------------------------
UO2++      gl  alc/w  25°C  40%  U       K1=12.60       1975SSe (34663) 770
At 35 C: K1=12.55
*******************************************************************************
C4H11N                  L    Diethylamine     CAS 109-89-7  (1331)
Diethylamine, 3-azapentane; (C2H5)2NH
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
UO2++      sp  non-aq 25°C 100%  U       K1=7.03   K2=<1     1989LMb (34821) 771
Medium: propylene carbonate, 0.1 M Et4NClO4
*******************************************************************************
C4H11NS                HL                     CAS 108-02-1  (1792)
1-Mercapto-2-(N,N-dimethyl)aminoethane; HS.CH2.CH2.N(CH3)2
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
```

UO2++ gl KNO3 20°C 0.25M U I K1=8.00 B2=15.20 1973MSd (35140) 772
O.25 KNO3, 25% MeOH: K1=9.88, K2=8.62; 25% EtOH: K1=10.19, K2=8.92
****
C5H2O2F6 HL HFA CAS 1522-22-1 (195)
1,1,1,5,5,5-Hexafluoropentane-2,4-dione; F3C.CO.CH2.CO.CF3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ dis oth/un 25°C 0.10M U B2=3.24 1970GRa (35929) 773
****
C5H4NOCl L CAS 1121-76-2 (328)
4-Chloropyridine-N-oxide; C5H4N(O)Cl

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp non-aq 25°C 100% U M 1976DBa (36029) 774
K((UO2A2)2+2L=2UO2A2L2)=0.61
HA=tropolone. Medium: benzene
****
C5H4N2O2 HL CAS 98-97-5 (1879)
Pyrazine-2-carboxylic acid; cyclo(-CH:CH.N:C(COOH).CH:N-)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl NaClO4 25°C 0.50M C K1=2.45 B2=4.4 1989NMa (36066) 775
****
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
---
UO2++ gl NaClO4 30°C 0.20M U T H K1=2.20 1976SKc (36266) 776
At 40 C:K1=2.13; 50 C:2.11
****
C5H5N L Pyridine CAS 110-86-1 (31)
Pyridine, Azine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp non-aq 25°C 100% U M 1976DBa (36689) 777
K((UO2A2)2+2L=2UO2A2L)=-1.66
HA=tropolone. Medium: benzene
****
C5H5NOS (4389)
2-Mercaptopyridine N-oxide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp NaClO4 25°C 0.10M C 1975EMa (36722) 778
B3=12.72

At pH 4.5, B3eff=12.41

****

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
UO2++	gl	diox/w	25°C	50%	U		K1=9.35	B2=17.62	1970GDa (36798)	779

Medium: 50% dioxan, 0.1 M NaClO4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	NaClO4	25°C	0.10M	U		K1=8.14	B2=14.96	1970GDa (36799)	780

****

C5H5NO2 CAS 1121-47-7 (6252)
2-Furancarboxaldehyde oxime, 2-Furfuraldoxime; C4H3O.CH:NOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	diox/w	20°C	60%	U	I	K1=11.23	1979GBd (36804)	781
UO2++	sp	diox/w	21°C	40%	U	I	K1=8.74	1978GMd (36805)	782

****

C5H5N5 L Adenine CAS 73-24-5 (237)
6-Aminopurine; H2N.C5H3N4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	KNO3	35°C	0.10M	U	M	K1=8.38	1982RKa (36984)	783
							K(UO2(EDTA)+L)=2.88		
							K(UO2(EDTA)L+H)=6.65		

****

C5H6N6 HL Diaminopurine CAS 1904-98-9 (4290)
2,6-Diaminopurine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	KNO3	35°C	0.10M	U	M	K1=9.60	1982RKa (37340)	784
							K(UO2(EDTA)+L)=3.01		
							K(UO2(EDTA)L+H)=6.57		

****

C5H6OS HL CAS 98-02-2 (4309)
Furfurylmercaptan; C4H3O.CH2.SH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	alc/w	25°C	50%	U	T	K1=7.75	B2=15.09	1973SSf (37346)	785

Medium: 50% EtOH, 0.1 M NaClO4
K1(15 C)=7.77, K1(35 C)=7.73, K2(15 C)=7.37, K3(35 C)=7.33

****

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
---------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.20M U T                    1985KMc (37454) 786
                                    K(UO2A+L)=4.60
H2A=iminodiacetic acid; 5 C:K=4.68; 45 C: K=4.50, DH=-9.6 kJ mol-1,
DS=54 J K-1 mol-1
---------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U    M                1971RSa (37455) 787
                                    K(UO2+L+A)=7.33
H2A=adipic acid
---------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U    M                1971RSa (37456) 788
                                    K(UO2+L+A+HB)=8.90
                                    K(UO2+L+A+HC)=8.48
H2A=succinic acid, H3B=thiomalic acid, H2C=adipic acid
---------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U        K1=4.86        1968RSa (37457) 789
---------------------------------------------------------------------------
UO2++      gl  NaClO4 28°C 0.10M U        K1=4.7         1968RSf (37458) 790
***************************************************************************
C5H8O                  L                     CAS 120-92-3  (330)
Cyclopentanone;
---------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
---------------------------------------------------------------------------
UO2++      sp  non-aq 25°C 100%  U    M                1976DBa (37730) 791
                                    K((UO2A2)2+2L=2UO2A2L)=-4.03
HA=tropolone. Medium: benzene
***************************************************************************
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
---------------------------------------------------------------------------
UO2++      oth NaClO4 25°C 0.10M C  I   T K1=7.1    B2=13.4   1982SLc (38111) 792
IUPAC evaluation. I=0 corr.: K1=7.7, B2=14.1
---------------------------------------------------------------------------
UO2++      gl  diox/w 24°C  50%  U        K1=8.7         1979ACa (38112) 793
---------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  75%  U        K1=10.07  B2=19.27  1977AHb (38113) 794
---------------------------------------------------------------------------
UO2++      dis NaClO4 25°C 0.10M U        K1=9.02   B2=17.28  1960RYa (38114) 795
                                    K3=6.52
                                    K4=5.98
---------------------------------------------------------------------------
UO2++      gl  oth/un 20°C  0.0  U T H    K1=7.66   B2=14.15  1955IFc (38115) 796
DH(K2)=-17 kJ mol-1, DS=67. 10 C: K1=7.94, K2=6.53; 30 C: K1=7.74, K2=6.43;
40 C: K1=7.42, K2=6.26
---------------------------------------------------------------------------
```

UO2++ dis NaClO4 25°C 0.10M U K1=6.8 B2=13.10 1955RYb (38116) 797
B((UO2)(OH)L) < 5.6
K(UO2+L+HL)=8.7
K(UO2+2L+HL)=14.8
K(UO2+HL) < 0
Medium: H2O-CHCl3

UO2++ gl diox/w 30°C 50% U K1=9.32 B2=16.92 1954BRc (38117) 798
****
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
---
UO2++ gl diox/w 30°C 40% M I K1=9.40 B2=16.00 1985ARc (38218) 799
Medium: 0.10 M NaClO4 in 40% dioxane/H2O. Also data for 20, 60 and 80% dioxane/H2O.

UO2++ gl KNO3 25°C 0.50M U K1=5.55 B2=9.38 1969VOb (38219) 800
****
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
---
UO2++ gl NaClO4 25°C 0.10M M M K1=4.07 1987NCa (38365) 801
K(UO2(nta)+L)=2.85

UO2++ gl NaClO4 31°C 0.10M U M K1=3.70 B2=6.39 1977SSb (38366) 802
B(UO2L(Ala))=11.38
K(ML2+M(Ala)2=2ML(Ala))=1.10

UO2++ gl NaClO4 20°C 1.00M U 1973CBc (38367) 803
K(UO2+HL)=1.89
K(UO2+2HL)=3.58
K(UO2+L+HL)=4.01

UO2++ gl KNO3 25°C 0.50M U K1=3.53 1969VOb (38368) 804
K(UO2+HL)=2.30
****
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
---
UO2++ vlt KCl 30°C 0.10M U K1=1.43 B2=2.11 1978DKa (38650) 805

UO2++ EMF oth/un 25°C 0.50M U K1=7.54 1973SKb (38651) 806

UO2++ sp oth/un 25°C 0.50M U K1=7.72 1973SKb (38652) 807

```
--------------------------------------------------------------------------------
UO2++      EMF oth/un   ?     ?  U        K1=10.45       1970FMb (38653) 808
--------------------------------------------------------------------------------
UO2++      gl  KCl    20°C 0.10M U        K1=7.75        1970GVa (38654) 809
********************************************************************************
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
--------------------------------------------------------------------------------
UO2++      gl  KCl    25°C 0.05M U TIH    K1=7.02   B2=13.84  1973SCe (38758) 810
Data for 0.15 and 0.25 M KCl and 45 C. At I=0, B2=13.90. DH(K1)=-29
kJ mol-1, DS(K1)=37 J K-1 mol-1; DH(K2)=-29, DS(K2)=33.
--------------------------------------------------------------------------------
UO2++      EMF oth/un 25°C 0.50M U        K1=6.52        1973SKb (38759) 811
By spectrophotometry, K1=6.48
********************************************************************************
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
--------------------------------------------------------------------------------
UO2++      sp  NaClO4 25°C  0.1M C                         2004GZa (39133) 812
                                          K(UO2+H+L)=7.78
For 0.3 mol/L NaClO4 K(UO2+H+L)=7.25; K(UO2+2H+L)=10.51
For 0.7 mol/L NaClO4 K(UO2+H+L)=7.6.95; K(UO2+2H+L)=9.79
--------------------------------------------------------------------------------
UO2++      gl  NaNO3  25°C 1.10M U    M   K1=8.53        1995ADc (39134) 813
                                          K(UO2+Hegta+HL)=7.95
                                          K(UO2(Hegta)L+H)=5.99
                                          K(UO2(egta)L+H)=8.72
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M M    M                   1995JSa (39135) 814
                                          K(UO2+2HL)=5.19
                                          K(UO2+HL)=2.90
                                          B(UO2AL)=11.45
                                          B(UO2CL)=9.89
K(UO2+2HL) by polarography. B(UO2DL)=8.80, B(UO2EL)=6.00. H2A is
oxalic acid, H2C is malonic acid, H2D is succinic acid, H2E is lactic acid
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.10M C        K1=8.25        1982PMa (39136) 815
                                          B(UO2HL)=12.40
--------------------------------------------------------------------------------
UO2++      vlt NaClO4 25°C 0.10M C        K1=3.10        1980SKd (39137) 816
Method: polarography.
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U    M   K1=8.43        1978SJa (39138) 817
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U        K1=8.25   B2=14.75  1976GPd (39139) 818
--------------------------------------------------------------------------------
```

UO2++ gl KNO3 25°C 0.20M U 1963FKa (39140) 819
K(UO2+HL)=2.66
****
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
---
UO2++ gl KNO3 25°C 0.10M U K1=9.70 1970FSa (39289) 820
K(UO2(OH)L+H=UO2L)=5.92
K(2UO2(OH)L=(UO2)2(OH)2L2)=3.41
K(2UO2L+2H2O=(UO2)2(OH)2L2+2H)=-8.43
****
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
---
UO2++ gl NaNO3 25°C 0.10M U K1=7.5 1993GAa (39548) 821
****
C5H9N3O4S H2L CAS 16907-58-7 (2106)
Thiosemicarbazone-diethanoic acid; H2N.CS.NH.N(CH2.COOH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp NaClO4 25°C 0.05M U K1=5.54 1987CDa (39575) 822
****
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
---
UO2++ gl NaClO4 30°C 0.10M M 1995JSa (39840) 823
K(UO2+2HL)=2.70
K(UO2+HL)=1.90
K(UO2+2HL) by polarography.

UO2++ gl NaClO4 25°C 0.10M U K1=6.63 B2=12.85 1973TSe (39841) 824
****
C5H10O2 HL IsoValeric acid CAS 503-74-2 (1311)
3-Methyl-butanoic acid, Isovaleric acid; (CH3)2CH.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp NaClO4 20°C 0.10M U K1=2.90 B2=4.81 1975KMb (40185) 825
****
C5H10O2 HL n-Valeric acid CAS 109-52-4 (3027)
Pentanoic acid; CH3(CH2)3.COOH

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

```
------------------------------------------------------------------------------
UO2++      sp  NaClO4 20°C 0.10M U        K1=2.91   B2=5.43   1975KMb (40204) 826
******************************************************************************
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
------------------------------------------------------------------------------
UO2++      oth NaClO4 35°C 0.10M U    M   K1=8.02   B2=14.53  1984SYa (40765) 827
                                         B(UO2(NTA)+L)=5.18
Method: paper electrophoresis
------------------------------------------------------------------------------
UO2++      vlt KCl    30°C 0.50M C        K1=1.55        1982CKb (40766) 828
Method: polarography.
------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U        K1=7.10   B2=14.72  1982NMa (40767) 829
------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U      T                    1980RRa (40768) 830
                                         K(UO2+HL)=2.01
------------------------------------------------------------------------------
UO2++      EMF oth/un   ?     ?  U        K1=8.60        1970FMb (40769) 831
******************************************************************************
C5H11NO2               HL    DL-Valine        CAS 516-06-3  (186)
DL-2-Amino-3-methylbutanoic acid; H2N.CH(CH(CH3)2).COOH
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M C        K1=7.10   B2=14.72  1983NMb (40898) 832
------------------------------------------------------------------------------
UO2++      EMF NaClO4 31°C 0.10M U        K1=7.97        1977RRa (40899) 833
******************************************************************************
C5H11NO2S              HL    Methionine       CAS 63-68-3  (42)
2-Amino-4-(methylthio)butanoic acid; H2N.CH(CH2.CH2.S.CH3)COOH
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U        K1=6.41   B2=13.38  1982NMa (41129) 834
------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U        K1=7.65   B2=13.95  1973RSa (41130) 835
------------------------------------------------------------------------------
UO2++      gl  KCl    25°C 0.10M U T      K1=6.52   B2=11.88  1971SSc (41131) 836
K1(35 C)=6.35, K1(45 C)=6.14, B2(35 C)=11.55, B2(45 C)=11.24
******************************************************************************
C5H11NS2               HL                     CAS 147-84-2  (2126)
Diethyldithiocarbamic acid; (CH3.CH2)2N.CSSH
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
UO2++      sp  NaClO4 25°C  1.0M U                        1956ZIa (41374) 837
                                         B4=17.2 to 17.8
```

```
**************************************************************************
C6H4N2O4              H2L                     CAS 89-01-0  (5801)
Pyrazine-2,3-dicarboxylic acid;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.50M C        K1=3.10   B2=5.40   1989NMa (42207) 838
**************************************************************************
C6H4O4                H2L                     CAS 615-94-1  (1280)
2,5-Dihydroxy-1,4-benzoquinone;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
UO2++      gl  KCl    30°C  25%  M TIH    K1=7.37   B2=14.07  1991GDe (42310) 839
Medium: 35% Dioxan/H2O, 0.1 M NaClO4. Other solvents and backgrounf concs.
**************************************************************************
C6H4O5                H2L    Comenic acid     CAS 499-78-5  (2544)
3-Hydroxypyran-4-one-6-carboxylic acid;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
UO2++      oth oth/un 20°C 0.10M U        B2=6.86        1972DVa (42321) 840
**************************************************************************
C6H4O6                H4L                     CAS 5678-48-2  (871)
Tetrahydroxy-1,4-benzoquinone;
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
UO2++      EMF NaClO4 30°C 0.10M U        K1=7.00   B2=10.00  1981HIa (42328) 841
**************************************************************************
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
--------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.20M U T HM                 1986KMc (42612) 842
                                       K(UO2(ida)+L)=4.52
                                       K(UO2(edda)+L)=3.96
                                       K(UO2(nta)+L)=4.42
Data for 5, 45 C. DH(UO2(ida)L)=-14 kJ mol-1, DS(UO2(ida)L)=38 J K-1 mol-1
DH(UO2(edda)L)=-16, DS(UO2(edda)L)=25; DH(UO2(nta)L)=-20, DS(UO2(nta)L)=17
--------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.10M U        K1=4.51        1970ERa (42613) 843
                                       K(UO2HL=UO2L+H)=-1
**************************************************************************
C6H5NO2                HL    Nicotinic acid   CAS 59-67-6  (419)
3-Pyridine-carboxylic acid; C5H4N.COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
```

UO2++ gl KNO3 25°C 0.10M U K1=9.56 B2=18.56 1988ZMa (42690) 844
K3=8.10
****
C6H5NO3 HL 4-Nitrophenol CAS 100-02-7 (454)
4-Nitrohydroxybenzene; HO.C6H4.NO2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl KNO3 20°C 0.10M U K1=4.40 1967BAb (42818) 845
****
C6H5NO3 HHL CAS 824-40-8 (878)
Pyridine-2-carboxylic acid N-oxide (Picolinic acid N-oxide); C5H4N(O)COO

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ EMF oth/un 25°C 0.10M U K1=3.62 1970ROa (42842) 846
****
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
---
UO2++ gl KNO3 20°C 0.10M U K1=12.9 B2=22.70 1967BAb (42945) 847
K(UO2L+H)=2.7
K(UO2L2+H)=4.97
****
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
---
UO2++ gl diox/w 25°C 75% U K1=9.93 1960KFc (43138) 848
****
C6H6N2O HL CAS 873-69-8 (1258)
Pyridine-2-aldoxime; C5H4N.CH:NOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp diox/w 21°C 40% U I K1=7.12 1978GMd (43302) 849
****
C6H6N2O2 HL Cupferron CAS 135-20-6 (637)
N-Nitrosophenylhydroxylamine; C6H5.N(OH).NO

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp oth/un 26°C 0.0 U B2=11.0 1961KKa (43427) 850
Ks(NH4+UO2L2+L)=-9.2
Ks by solubility
****
C6H6N2O2 HL CAS 5657-61-4 (1430)

Nicotinylhydroxamic acid; C5H4N.CO.NH.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	NaClO4	30°C	0.10M	U		K1=7.50 B2=14.65	1969DSb (43438)	851

****

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
UO2++	gl	diox/w	30°C	50%	U		K1=7.59 B2=14.72	1966VMa (43447)	852

Medium: 50% dioxan, 0.1 M NaClO4

****

C6H6O HL Phenol CAS 108-95-2 (457)

Hydroxybenzene, phenol; C6H5.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	KNO3	20°C	0.10M	U		K1=5.8	1965BSd (43547)	853

****

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
UO2++	gl	KNO3	25°C	0.20M	U	M	K1=13.85 B2=23.43	1990SSc (43855)	854
							K(UO2(IMDA)+L)=12.40		
							K(UO2(NTA)+L)=11.86		
							K(UO2(HEDTA)+L)=11.36		
							K(UO2(EDTA)+L)=10.83		
K(UO2(CDTA)+L)=10.76, K(UO2(DTPA)+L)=9.49									
UO2++	gl	NaClO4	25°C	0.20M	U	M	K1=14.90	1986SLb (43856)	855
							K(UO2(ida)+L)=13.80		
							K(UO2(nta)+L)=13.40		
							K(UO2(edta)+L)=10.42		
UO2++	gl	KNO3	25°C	0.10M	U	M	K1=13.23	1985VSb (43857)	856
							B(UO2AL)=17.28		
							K(UO2A+L)=12.15		
							K(UO2L+A)=4.05		
H2A=phthalic acid									
UO2++	gl	KNO3	20°C	0.10M	U	I	K1=15.9	1965BSd (43858)	857
							K(UO2+HL)=6.2		
							K(UO2L+HL)=4.9		
							K(UO2HL2+HL)=3.7		
By spectrophotometry, 0.1 M NaClO4: K1=15.9, K(UO2+HL)=6.3, K(UO2HL+HL)=4.9									

```
UO2++      sp  oth/un   ?   0.0  U                        1963SGb (43859) 858
                                        K(UO2L+H2L=UO2L2+2H)=-10.5
                                        K(UO2L+H)=3.76
********************************************************************************
C6H6O2                H2L    Resorcinol       CAS 108-46-3  (3645)
1,3-Dihydroxybenzene; HO.C6H4.OH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.20M U    M   K1=9.66          1986SLb (43890) 859
                                        K(UO2(ida)+L)=8.96
                                        K(UO2(nta)+L)=8.64
                                        K(UO2(edta)+L)=6.71
--------------------------------------------------------------------------------
UO2++      gl  KNO3   20°C 0.10M U        K1=16.9          1966BRc (43891) 860
--------------------------------------------------------------------------------
UO2++      sp  oth/un   ?     ?  U                        1966GSb (43892) 861
                                        K(UO2+HL)=6.0
--------------------------------------------------------------------------------
UO2++      gl  KNO3   20°C 0.10M U                        1965BSd (43893) 862
                                        K(UO2+HL)=5.9
********************************************************************************
C6H6O2                H2L    Hydroquinone     CAS 123-31-9  (3646)
1,4-Dihydroxybenzene; HO.C6H4.OH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  oth/un 25°C    ?  U        K1=10.32         1967RBa (43898) 863
********************************************************************************
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
--------------------------------------------------------------------------------
UO2++      sp  oth/un 25°C    ?  U        K1=27.19         1989WZa (43990) 864
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.20M U    M   K1=13.81         1986SLb (43991) 865
                                        K(UO2(ida)+L)=13.55
                                        K(UO2(nta)+L)=12.85
                                        K(UO2(edta)+L)=10.31
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U                        1965BAb (43992) 866
                                        K(2UO2+H3L=(UO2)2L+3H)=-6.84
                                        K(UO2L+H3L=UO2H2L2+H)=-4.69
********************************************************************************
C6H6O3                H3L    Phloroglucinol   CAS 6099-90-7  (2525)
1,3,5-Trihydroxybenzene; C6H3(OH)3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
```

```
UO2++      gl  NaClO4 25°C 0.20M U    M   K1=8.34        1986SLb (44027) 867
                                           K(UO2(ida)+L)=7.46
                                           K(UO2(nta)+L)=7.08
                                           K(UO2(edta)+L)=5.28
-------------------------------------------------------------------------------
UO2++      sp  none   25°C  0.0  C                      1983EEa (44028) 868
                                           K(UO2+H2L)=6.67
Medium pH 3.5. Extrapolated from data for I=0.15-0.25 M. K(H2L+H)=8.45.
*******************************************************************************
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
-------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U        K1=8.18   B2=14.76  1969CBb (44102) 869
                                           K3=3.51
-------------------------------------------------------------------------------
UO2++      sp  NaClO4 25°C 0.10M U        K1=8.3    B2=15.00  1968CHc (44103) 870
                                           K3=3.26
*******************************************************************************
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
-------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.20M U T HM                  1986KMc (44249) 871
                                           K(UO2(ida)+L)=6.98
                                           K(UO2(edda)+L)=6.50
                                           K(UO2(nta)+L)=7.03
Data for 5, 45 C. DH(UO2(ida)L)=-17 kJ mol-1, DS(UO2(ida)L)=75 J K-1 mol-1
DH(UO2(edda)L)=-15, DS(UO2(edda)L)=71; DH(UO2(nta)L)=-18, DS(UO2(nta)L)=71
-------------------------------------------------------------------------------
UO2++      vlt NaNO3  20°C  1.0M U    M   K1=7.27        1967HAa (44250) 872
                                           K(UO2L+A)=1.57
HA=formic acid
-------------------------------------------------------------------------------
UO2++      gl  KNO3   20°C 0.10M U                      1966BRc (44251) 873
                                           K(UO2+HL=UO2L+H)=-0.5
                                           K(UO2L+HL=UO2L2+H)=-2.10
                                           K(UO2L2+HL=UO2L3+H)=-4.33
-------------------------------------------------------------------------------
UO2++      sp  NaClO4 20°C 0.10M U        K1=7.05   B2=12.66  1966SKb (44252) 874
                                           K3=3.53
-------------------------------------------------------------------------------
UO2++      gl  KNO3   20°C 0.10M U  I     K1=7.2    B2=12.65  1965BSd (44253) 875
                                           K3=3.4
By spectrophotometry, 0.1 M NaClO4: K1=7.05, K2=5.4, K3=3.5
-------------------------------------------------------------------------------
UO2++      gl  diox/w 30°C 75v%  U        K2=10.23       1960KFc (44254) 876
-------------------------------------------------------------------------------
```

UO2++ gl diox/w 30°C 50% U K1=10.1 B2=17.5 1954BFa (44255) 877
****
C6H6O5S H3L CAS 7134-09-0 (3687)
3,4-Dihydroxybenzenesulfonic acid; (HO)2.C6H3.SO3H

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl KNO3 20°C 0.10M U 1965BSb (44287) 878
K((UO2)2L2OH+3H=2UO2HL)=9.0

UO2++ gl KNO3 20°C 0.10M U 1965BSd (44288) 879
K(UO2+HL)=6.4
****
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
---
UO2++ gl KNO3 25°C 0.20M U M K1=14.29 B2=26.58 1990SSc (44505) 880
K(UO2(IMDA)+L)=12.78
K(UO2(NTA)+L)=12.41
K(UO2(HEDTA)+L)=12.10
K(UO2(EDTA)+L)=11.14
K(UO2(CDTA)+L)=10.99, K(UO2(DTPA)+L)=10.03

UO2++ sp NaClO4 20°C 0.10M U 1965BSb (44506) 881
K((UO2)2L2OH+3H=2UO2HL)=8.9

UO2++ gl KNO3 20°C 0.10M U 1965BSd (44507) 882
K(UO2+HL)=6.3

UO2++ sp NaClO4 20°C 0.10M U 1965SSc (44508) 883
K(UO2+HL)=6.5

UO2++ gl KNO3 25°C 0.10M U K1=15.90 1958GRd (44509) 884
****
C6H7NO HL 2-Aminophenol CAS 95-55-6 (2868)
2-Amino-1-hydroxybenzene; HO.C6H4.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl KNO3 25°C 0.10M U M K1=11.40 B2=21.23 1985VSb (44940) 885
B(UO2AL)=14.98
K(UO2A+L)=9.85
K(UO2L+A)=3.58
H2A=phthalic acid
****
C6H7NO L CAS 1003-67-4 (331)
4-Methylpyridine-N-oxide; C5H4N(O)CH3

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      sp  non-aq 25°C 100%  U    M                    1976DBa (45019) 886
                                        K((UO2A2)2+2L=2UO2A2L)=0.85
HA=tropolone. Medium: benzene
*************************************************************************
C6H7O3As              H2L    Phenylarsonic    CAS 98-05-5  (3690)
Benzenearsonic acid, phenylarsonic acid; C6H5AsO3H2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      sol oth/un 18°C 0.10M U        K1=2.2            1960MIa (45179) 887
*************************************************************************
C6H7O4As              H3L                    CAS 98-14-6  (219)
2-Hydroxyphenylarsonic acid; HO.C6H4.As(:O)(OH)2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      sp  oth/un 25°C 0.10M U  I                      1974NUa (45204) 888
                                        K(UO2+HL)=8.64
-------------------------------------------------------------------------
UO2++      gl  oth/un 25°C 0.10M U  I                      1969OCa (45205) 889
                                        K(UO2+HL)=8.64
I=0: K(UO2+HL)=8.75; K(UO2HL+HL)=5.11
*************************************************************************
C6H7O4P               H3L                    CAS 53104-46-4  (218)
2-Hydroxyphenylphosphonic acid; HO.C6H4.PO3H2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      sp  oth/un 25°C 0.10M U  I                      1974NUa (45208) 890
                                        K(UO2+HL)=5.81
*************************************************************************
C6H7O5As              H4L                    CAS 6269-96-1  (4364)
2,4-Dihydroxybenzenearsonic acid; (HO)2.C6H3.AsO3H2
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      gl  oth/un 25°C 0.10M U  I                      1969OCa (45236) 891
                                        K(UO2+H2L)=8.76
I=0: K(UO2+H2L)=8.83, K(UO2H2L+H2L)=5.29
*************************************************************************
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
-------------------------------------------------------------------------
UO2++      sp  NaClO4 25°C 0.10M U                         1969SHc (45664) 892
                                        K(UO2+H2L=UO2LH+H)=-1.69
                                        K(UO2LH+H2L=UO2(LH)2+2H)=-3.07
```

K(UO2LH=UO2LH(OH)2+2H)=-10.92
K(UO2(LH)2=UO2(LH)2OH+H)=-5.08
K(UO2+LH+2OH)=19.4

****

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
UO2++	gl	NaClO4	30°C	0.10M	M	I	K1=4.65	B2= 8.06	1985ARc (45717)	893

Also data for 20-80% dioxane/H2O. For 40% dioxane/H2O, K1=8.50, K2=4.25.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	NaClO4	30°C	0.10M	U	I	K1=4.65	B2=8.06	1983ASa (45718)	894

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	KNO3	25°C	0.05M	M		K1=4.55	1975DPb (45719)	895

****

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
UO2++	sp	NaClO4	20°C	0.05M	C		K1=3.93	1989RAb (46295)	896

Medium: 0.05 M NaClO4/HClO4.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	oth/un	25°C	>1.0	U		K1=7.17	1980VKa (46296)	897
							B((UO2L)2)=17.00		
							B(UO2HL)=9.68		
							B(UO2H2L)=11.43		

Medium: 1 M (H,Na,(UO2)0.5)3L

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	ix	oth/un	25°C	0.10M	U			1975OOa (46297)	898
							K(UO2+H3L)=2.79		
							K(UO2+H2L)=4.25		
							K(UO2+HL)=7.25		

I=0.1(Na citrate)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	dis	oth/un	25°C	?	U			1972MKc (46298)	899
							K(UO2+H3L=UO2L+3H)=-6.30		
							K(2UO2+2H3L=(UO2)L2+6H)=-6.59		

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	dis	oth/un	25°C	pH 4	U	M		1970AKa (46299)	900
							K(2UO2L=(UO2L)2) > 6		

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	KNO3	25°C	1.0M	U	I	K1=6.9	1965RMa (46300)	901
							K(2UO2+2L)=17.70		
							K'(2UO2L=(UO2)2L2)=4.0		

At I=0.1 M: K1=7.4, K=18.87, K'=4.1
K(3(UO2)2L2=(UO2)2L2[(OH)5(UO2)2L2]2+10H)=-47.9

```
UO2++      gl  KNO3   25°C 0.10M U  I     K1=7.40   B2=18.87  1965RMa (46301) 902
                                         K(2UO2L=(UO2L)2)=4.07
I=1.0 M: K1=6.87, B2=17.70, K=3.96
-------------------------------------------------------------------------------
UO2++      dis NaClO4 20°C  1.0M U        B2=11.2        1962SBb (46302) 903
-------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C .136M U  I                    1960FNa (46303) 904
                                         K(2UO2+2HL=(UO2HLOH)2+2H)=7.68
At I=0.05 M K=9.04
-------------------------------------------------------------------------------
UO2++      gl  oth/un 25°C 0.15M U        K1=8.5         1959LLa (46304) 905
*******************************************************************************
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
-------------------------------------------------------------------------------
UO2++      gl  KNO3    5°C 0.10M U TI     K1=9.94        1987AKb (47073) 906
Data for 25, 45 C, I=0.05-0.2 M KNO3. Also data for 10-40% MeOH/H2O and
EtOH/H2O, 0.20 M KNO3, 25 C.
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.20M U        K1=13.44       1986SLb (47074) 907
-------------------------------------------------------------------------------
UO2++      oth NaClO4 35°C 0.10M C        K1=9.85        1986SYa (47075) 908
Method: paper electrophoresis. Medium pH 8.5.
-------------------------------------------------------------------------------
UO2++      oth NaClO4 35°C 0.10M C    M   K1=9.85        1985SGc (47076) 909
                                         K(UO2L+his)=5.31
Method: paper electrophoresis. Medium pH 8.5.
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C  3.0M C                      1984BLb (47077) 910
                                         B((UO2)HL)=12.19
-------------------------------------------------------------------------------
UO2++      oth NaClO4 35°C 0.10M U        K1=9.85        1984SYa (47078) 911
Method: paper electrophoresis
-------------------------------------------------------------------------------
UO2++      dis oth/un 20°C 0.10M U        K1=7.88        1968MTa (47079) 912
Method: paper electrophoresis
-------------------------------------------------------------------------------
UO2++      dis NaClO4 20°C 0.10M U      T K1=9.56        1963STc (47080) 913
*******************************************************************************
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
-------------------------------------------------------------------------------
UO2++      gl  KNO3   35°C 0.10M U                      1997RVa (47622) 914
                                         K(UO2+HL)=4.56
-------------------------------------------------------------------------------
UO2++      oth NaClO4 35°C 0.10M C        K1=8.70   B2=14.05  1985SGc (47623) 915
```

Method: paper electrophoresis. Medium pH 8.5.

UO2++ gl oth/un 25°C 0.20M U K1=7.71 1957LDa (47624) 916

****

C6H10N2O5 H2L ADA CAS 26239-55-4 (2747)

N-(2-Acetamido)iminodiethanoic acid; H2N.CO.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	KNO3	25°C	0.10M	C	M	K1=7.05 K((UO2)L+A)=3.99	2003AHa (47856)	917

HA is 3-amino-5-mercapto-1,2,4-triazole.

UO2++	gl	KNO3	25°C	0.10M	M	M	K1=6.89	1996AEa (47857)	918

Data for ternary complexes with dipicolinic acid

****

C6H10O3 HL CAS 141-97-9 (3068)

Ethyl acetoacetate; CH3.CO.CH2.CO2.C2H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	diox/w	30°C	75%	U		K1=12.48	1973AAa (48019)	919

****

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
UO2++	gl	NaClO4	25°C	0.10M	M	M	K1=4.08 K(UO2(nta)+L)=2.98	1987NCa (48094)	920
UO2++	gl	KNO3	25°C	0.20M	U	T	K(UO2A+L)=4.10	1985KMc (48095)	921

H2A=iminodiacetic acid; 5 C:K=4.28; 45 C: K=3.86, DH=-18.8 kJ mol-1, DS=17 J K-1 mol-1

UO2++	oth	oth/un	40°C	0.10M	U		K1=11.8	1981SSe (48096)	922

Method: Paper electrophoresis.

UO2++	gl	NaClO4	30°C	0.10M	U		K1=4.08	1973KJa (48097)	923

UO2++	gl	KNO3	25°C	0.50M	U		K1=3.54 K(UO2+HL)=2.38	1969VOb (48098)	924

UO2++	gl	NaClO4	31°C	0.10M	U		K1=4.08	1968RSa (48099)	925

****

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

```
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U T      K1=4.04        1981SJb (48195) 926
At 20 C: K1=3.99; 40 C: 4.10
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U    M   K1=4.04        1981SJc (48196) 927
                                         B((UO2)L(malonate))=9.33
                                         B((UO2)L(succinate))=8.29
                                         B((UO2)L(itaconate))=8.53
                                         B((UO2)L(glutarate))=7.53
B(M+L+adipic acid)=7.43.
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U    M   K1=4.04        1978SJa (48197) 928
                                         B((UO2)L(Asp))=9.76
                                         B((UO2)L(Glu))=9.49
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.05M M        K1=3.90        1975DPb (48198) 929
--------------------------------------------------------------------------------
UO2++      vlt alc/w  30°C  30%  U  I     K1=0.74   B2=0.08   1972RGc (48199) 930
                                         B3=1.53
Medium: 0-30% MeOH, 0.1 M KCl.  0%: K1=0.52, B2=0.08, B3=0.93
********************************************************************************
C6H10O4S2             H2L                    CAS 7244-02-2  (438)
1,2-Bis(carboxymethylthio)ethane; HOOC.CH2.S.CH2.CH2.S.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.50M U        K1=3.06   B2=4.85   1980NAa (48251) 931
********************************************************************************
C6H10O6               H2L                    CAS 23243-68-7  (242)
1,2-Bis(carboxymethoxy)ethane; HOOC.CH2.O.CH2.CH2.O.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 1.00M U   H    K1=3.06   B2=5.22   1986BSb (48359) 932
                                         B((UO2)HL)=5.51
                                         B((UO2)HL2)=8.34
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C  1.0M U   H    K1=3.08        1984TAb (48360) 933
By calorimetry: DH(K1)=26.6 kJ mol-1, DS(K1)=148.4 J K-1 mol-1.
********************************************************************************
C6H10O7                HL    Galacturonic     CAS 685-73-4  (290)
D-Galacturonic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 1.00M U        B2=6.19        1990DGb (48396) 934
                                         B((UO2)H-2L2)=-2.03
                                         B((UO2)H-3L3)=-4.724
********************************************************************************
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
UO2++	gl	diox/w	20°C	50%	U		K1=12.10 B2=22.14	1969KSd (48542)	935

Medium: 50% dioxan, 0.025 M NaClO4

****

C6H11NO5 H2L HIMDA CAS 93-62-9 (192)

N-(2-Hydroxyethyl)iminodiethanoic acid; HO.CH2.CH2.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	KNO3	25°C	0.10M	U		K1=8.34	1970FSa (48806)	936
							K(UO2(OH)L+H=UO2L)=5.86		
							K(2UO2(OH)L=(UO2)2(OH)2L2)=3.40		
							K(2UO2L+2H2O=(UO2)2(OH)2L2+2H)=-8.32		
UO2++	gl	KNO3	25°C	0.10M	U	I	K1=8.32	1964RMc (48807)	937
							K(H+UO2OHL)=5.92		
							K(2UO2OHL=(UO2OHL)2)=3.50		

In 1 M KNO3 K1=7.99, K(UO2OHL+H)=5.87, K(2UO2OHL=(UO2OHL)2)=3.65

****

C6H12N2O4 H2L EDDA CAS 5657-17-0 (119)

1,2-Diaminoethane-N,N'-diethanoic acid; HOOC.CH2.NH.CH2.CH2.NH.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	NaClO4	25°C	1.00M	U		K1=11.5	1986BSb (49277)	938
UO2++	gl	NaClO4	25°C	3.0M	C		K1=16.02	1984BLb (49278)	939
UO2++	gl	KNO3	25°C	0.10M	U		K1=11.41	1970FSa (49279)	940
							K(UO2(OH)L+H=UO2L)=5.96		

****

C6H12N2O4 H2L CAS 4726-83-4 (5911)

N,N-Dihydroxyhexanediamide; HN(OH).CO.(CH2)4.CO.NH(OH)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	NaNO3	25°C	0.10M	C		K1=13.27	1989EHa (49337)	941
							B((UO2)L)=17.50		

****

C6H12N4 L Methenamine CAS 100-97-0 (619)

Hexamethylenetetramine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	vlt	oth/un	25°C	1.0M	C	T H	K1=2.50 B2= 3.80	1980PSc (49386)	942
							B3=-1.14		
							B4=1.25		

Method: polarography. Medium: 1.0 M potassium acetate. Also data at 30 and 35 C. At 30 C, DH(K1)=-15.1 kJ mol-1, DS(K1)=-50 J K-1 mol-1.

****

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
UO2++	gl	KNO3	25°C	0.10M	U		K1=7.02	B2=14.66	1982NMa (49918)	943

****

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
UO2++	vlt	KCl	30°C	0.50M	C		K1=1.50		1982CKb (50115)	944

Method: polarography.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	KNO3	25°C	0.10M	U		K1=7.13	B2=14.36	1982NMa (50116)	945
UO2++	gl	KCl	25°C	0.10M	U		K1=5.60	B2=13.20	1982ZZa (50117)	946
UO2++	gl	KCl	25°C	0.10M	U	T T	K1=6.83	B2=12.49	1971SSc (50118)	947

K1(35 C)=6.58, K1(45 C)=6.17, B2(35 C)=11.83, B2(45 C)=11.23

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	EMF	oth/un	25°C	0.10M	U		K1=8.60		1970FMb (50119)	948

****

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
UO2++	gl	NaClO4	20°C	0.10M	U	T H	K1=7.81	B2=14.73	1983SDc (50197)	949

Data for 30 and 40 C. DH(B2)=-43.4 kJ mol-1, DS(B2)=133 J K-1 mol-1.

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	NaClO4	30°C	0.10M	U	T H	K1=6.20	B2=11.38	1980SGh (50416)	950

Also data at 20 and 40 C. DH(B2)=-66.9 kJ mol-1, DS(B2)=-4.8J K-1 mol-1.

****

C6H13NO5 HL Tricine CAS 5704-04-1 (1239)
N-(Tris(hydroxymethyl)methyl)glycine; (HO.CH2)3C.NH.CH2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	KNO3	25°C	0.10M	C	M	K1=6.79		2003AHa (50511)	951
							K((UO2)L+A)=3.65			

HA is 3-amino-5-mercapto-1,2,4-triazole.

UO2++ gl KNO3 25°C 0.10M M I K1=6.84 B2=13.11 1997EAa (50512) 952
Also values in 40% w/w ethanol, DMF, dioxane, acetonitrile.
****
C6H13NO6 HL CAS 84518-56-9 (4387)
2-Amino-2-deoxy-D-gluconic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl NaClO4 25°C 1.00M C M K1=7.01 B2=13.36 1991DGa (50537) 953
B(UO2AL)=11.43
B(UO2H-1AL)=7.40
HA=D-galacturonic acid.
****
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
---
UO2++ gl NaClO4 20°C 0.10M U T K1=7.90 B2=14.90 1986SHa (50839) 954
Data for 20-40 C.
****
C6H16N2O2 L CAS 929-59-4 (915)
3,6-Dioxaoctane-1,8-diamine; H2N.CH2.CH2.O.CH2.CH2.O.CH2.CH2.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp non-aq 25°C 100% U K1=3.81 1989LMb (51702) 955
Medium: propylene carbonate, 0.1 M Et4NClO4
****
C6H17N3 L CAS 56-18-8 (968)
1,5,9-Triazanonane, 4-azaheptane-1,7-diamine; H2N.CH2.CH2.CH2.NH.CH2.CH2.CH2.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp non-aq 25°C 100% C H K1=0.75 1995CBa (51903) 956
Medium: DMSO, 0.1 M NEt4ClO4. DH=-23.4 kJ mol-1, DS=-64 J K-1 mol-1.
Method: FTIR and calorimetry.
****
C6H18N2O6P2 H4L (1363)
N,N'-Dimethyldiaminoethane-N,N'-dimethylphosphonic acid;
CH3N(CH2PO3H2).CH2.CH2.N(CH2.PO3H2)CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl oth/un 25°C 0.10M U K1=14.9 1976MDa (51955) 957
K(UO2+HL)=9.9
****
C6H18N3OP L HMPA CAS 680-31-9 (603)

Hexamethylphosphoramide, Tris-(dimethylamino)phosphine oxide;((CH3)2N)3PO

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	non-aq	20°C	100%	U		1983KBc (51988)		958
							K(UO2Cl2+L)=5.06		

Medium: acetone

****

C6H18N4 L Trien-tetramine CAS 112-24-3 (11)
1,4,7,10-Tetraazadecane; H2N.CH2.CH2.NH.CH2.CH2.NH.CH2.CH2.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	EMF	non-aq	25°C	100%	C	H	K1=7.63	1995CBa (52132)	959

Medium: DMSO, 0.1 M NEt4ClO4. DH=-70.0 kJ mol-1, DS=-89 J K-1 mol-1.
Method: Ag electrode and calorimetry.

****

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
UO2++	gl	NaClO4	30°C	0.10M	U	M	K1=6.39 B2=11.13	1973KJa (52504)	960
							K(UO2+L+A)=8.80		
							K(UO2+L+B)=9.88		
							K(UO2+L+C)=8.20		
							K(UO2+L+D)=13.20		
UO2++	gl	oth/un	35°C	dil	U		K1=7.0 B2=12.50	1970DDc (52505)	961
UO2++	gl	KNO3	20°C	0.10M	U		K1=7.55 B2=13.05	1967BAa (52506)	962

H2A=succinic acid, H2B=phthalic acid, H2C=adipic acid, H3D=5-sulfosalicylic acid

****

C7H4O3Br2 H2L CAS 3147-55-5 (1116)
3,5-Dibromosalicylic acid; C6H2(OH)(Br)2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	NaClO4	31°C	0.10M	U		K1=9.80 B2=17.34	1973JKa (52544)	963

****

C7H4O3Cl2 H2L CAS 320-72-9 (1117)
3,5-Dichlorosalicylic acid; C6H2(OH)(Cl)2.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	NaClO4	31°C	0.10M	U		K1=9.52 B2=16.73	1973JKa (52556)	964

****

C7H4O7 H3L Meconic acid CAS 497-59-6 (3723)
3-Hydroxy-4-pyrone-2,6-dicarboxylic acid;

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      sp  alc/w  20°C  30%  U  I     K1=12.4   B2=21.40  1966SKb (52566) 965
                                         K(UO2+H3L=UO2H2L+H)=1.0
Medium: 30% EtOH, 0.1 M NaClO4. 0%: K1=11.8, K2=8.9, K=0.6
--------------------------------------------------------------------------------
UO2++      sp  NaClO4 20°C 0.10M U        K1=12.5   B2=21.0   1965BSd (52567) 966
********************************************************************************
C7H5NO4               H2L    Quinolinic acid  CAS 89-00-9  (567)
2,3-Pyridinedicarboxylic acid; C5H3N.(COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.50M C        K1=4.72        1989NMa (52631) 967
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U    M   K1=4.65   B2=8.30   1979SJc (52632) 968
                                         K(UO2+HL+malonate)=10.56
                                         K(UO2+HL+succinate)=8.78
                                         K(UO2+HL+itaconate)=9.19
                                         K(UO2+HL+glutarate)=7.88
K(UO2+HL+adipate)=8.72
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U    M   K1=4.65   B2=8.30   1978SJa (52633) 969
                                         B((UO2)L(Asp))=8.48
********************************************************************************
C7H5NO4               H2L    Dipicolinic aci  CAS 449-83-2  (418)
2,6-Pyridinedicarboxylic acid; C5H3N.(COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M M    M   K1=5.70        1996AEa (52816) 970
Data for ternary complexes with aspartic acid, serine, asparagine and
N-(2-acetamido)iminodiacetic acid
********************************************************************************
C7H5NO4               H2L    Dinicotinic      CAS 499-81-0  (2857)
3,5-Pyridinedicarboxylic acid; C5H3N.(COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U    M   K1=5.44   B2=10.68  1978SJa (52846) 971
                                         B((UO2)L(Asp))=9.21
********************************************************************************
C7H5NO5               H2L    Nitrosalicylic   CAS 85-38-1  (1416)
2-Hydroxy-3-nitrobenzoic acid; HO.C6H3(NO2).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U        K1=8.42   B2=15.04  1973JKa (52978) 972
--------------------------------------------------------------------------------
```

UO2++ gl KNO3 28°C 0.10M U K1=8.57 1966RSa (52979) 973
****
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
---
UO2++ gl NaClO4 31°C 0.10M U K1=8.65 B2=15.21 1973JKa (53056) 974
****
C7H5O3As HL CAS 50722-40-2 (8008)
2-Arsenosobenzoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl alc/w 35°C 20% U K1=3.70 1973SPf (53279) 975
Medium: 20% EtOH/H2O, 0.1 M KNO3.
****
C7H5O3Br H2L CAS 3883-95-2 (1111)
3-Bromosalicylic acid; Br.C6H3(OH).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl NaClO4 31°C 0.10M U K1=9.72 B2=17.34 1973JKa (53291) 976
****
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
---
UO2++ gl NaClO4 31°C 0.10M U K1=10.81 B2=19.69 1973JKa (53348) 977

UO2++ sp NaClO4 22°C 0.10M U K1=12.11 B2=16.68 1970HSb (53349) 978
****
C7H5O3I H2L CAS 16870-28-3 (4435)
2-Hydroxy-4-iodobenzoic acid (4-iodosalicylic acid); HO.C6H3(I).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl NaClO4 31°C 0.10M U K1=10.71 B2=19.51 1973JKa (53354) 979
****
C7H6NO3Br H2L CAS 87353-69-3 (207)
4-Bromosalicylhydroxamic acid; Br.C6H3(OH).CO.NH.OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 30°C 50% U K1=6.505 1977DJb (53397) 980
****
C7H6NO3Br H2L CAS 5798-94-7 (206)
5-Bromosalicylhydroxamic acid; Br.C6H3(OH).CO.NH.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	diox/w	30°C	50%	U		K1=7.05		1977DJb (53408)	981

C7H6NO3Cl H2L (205)
3-Chlorosalicylhydroxamic acid; Cl.C6H3(OH).CO.NH.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	diox/w	30°C	50%	U		K1=6.63		1977DJb (53418)	982

C7H6NO3Cl HL (6263)
4-Chlorosalicylhydroxamic acid; Cl.C6H3(OH).CO.NH.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	diox/w	30°C	50%	U		K1=5.62		1977DJb (53421)	983

C7H6NO3Cl HL CAS 37551-43-2 (6262)
5-Chlorosalicylhydroxamic acid; Cl.C6H3(OH).CO.NH.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	diox/w	30°C	50%	U		K1=7.11		1977DJb (53424)	984

C7H6N2O5 H2L CAS 831-51-6 (208)
5-Nitrosalicylhydroxamic acid; O2N.C6H3(OH).CO.NH.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	diox/w	30°C	50%	U		K1=5.62		1977DJb (53524)	985

C7H6N2S HL CAS 583-39-1 (2043)
2-Mercaptobenzimidazole;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	alc/w	25°C	50%	U		K1=8.60	B2=16.40	1978ZIa (53533)	986

C7H6O2 HL Salicylaldehyde CAS 90-02-8 (193)
2-Hydroxybenzaldehyde, Salicylaldehyde; HO.C6H4.CHO

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	alc/w	?	50%	U		K1=12.83		1957HSa (53633)	987

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

```
------------------------------------------------------------------------------
UO2++      gl  NaClO4 20°C 1.00M U        K1=8.18   B2=15.07  1973MBb (53698) 988
******************************************************************************
C7H6O2                 HL    Benzoic Acid     CAS 65-85-0  (462)
Benzenecarboxylic acid; C6H5.COOH
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U    M                  1971RBc (53860) 989
                                        K(UO2+L+A)=6.08
                                        K(UO2+L+B)=4.36
                                        K(UO2+L+HC)=5.08
HA=phenylacetic acid, HB=phenoxyacetic acid, H2C=4-hydroxybenzoic acid
------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U        K1=2.57        1968RSa (53861) 990
------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U        K1=2.59        1968RSg (53862) 991
******************************************************************************
C7H6O2S                H2L    Thiosalicylic    CAS 147-93-3  (236)
2-Mercaptobenzoic acid; HS.C6H4.COOH
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
UO2++      gl  alc/w  25°C  40%  U    M   K1=4.60   B2=8.32   1986SIb (53922) 992
Medium: 40% v/v EtOH/H2O, 0.1 M NaClO4
------------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  50%  U        K1=4.60   B2=8.50   1973RSa (53923) 993
Medium: 50% dioxan, 0.1 M NaClO4
******************************************************************************
C7H6O3                 H2L                     CAS 95-01-2  (4407)
2,4-Dihydroxybenzaldehyde; (OH)2.C6H3.CHO
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  50%  U                       1969VMa (53942) 994
                                        K(UO2+HL)=6.60
                                        K(UO2HL+HL)=5.20
Medium: 50% dioxan, 0.1 M NaClO4
******************************************************************************
C7H6O3                 H2L                     CAS 1194-98-5  (4408)
2,5-Dihydroxybenzaldehyde; (OH)2.C6H3.CHO
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  50%  U                       1969VMa (53949) 995
                                        K(UO2+HL)=8.20
                                        K(UO2HL+HL)=6.85
Medium: 50% dioxan, 0.1 M NaClO4
******************************************************************************
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
UO2++	gl	alc/w	24°C	20%	C	M	K1=2.95	1996MIa (54319)	996
							K(UO2(ada)+L)=3.14		
Medium: 20% w/w EtOH/H2O, 0.10 M KNO3.									
ada: N-(acetamido)-iminodiethanoic acid.									
UO2++	sp	KNO3	25°C	0.10M	U		K1eff=2.72	1996SMb (54320)	997
Method:synchronous fluorescence spectroscopy. pH 3.5.									
UO2++	sp	none	25°C	0	M	T	K1=13.12	1989YAa (54321)	998
							K(UO2+HL=UO2L+H)=1.43		
							K(UO2+H2L=UO2L+2H)=-3.55		
UO2++	gl	NaClO4	25°C	0.10M	U	I	K1=12.04	1987GMa (54322)	999
							B((UO2)HL)=14.68		
I=0.1: K1=11.97, B((UO2)HL)=15.56; I=0.7: K1=12.00, B((UO2)HL)=15.41									
UO2++	gl	KNO3	25°C	0.10M	U	M T	K1=11.30	1985VSb (54323)	1000
							B(UO2AL)=17.05		
							K(UO2A+L)=11.92		
							K(UO2L+A)=5.75		
H2A=phthalic acid									
UO2++	gl	NaClO4	31°C	0.10M	U		K1=12.18 B2=22.22	1973JKa (54324)	1001
UO2++	gl	KNO3	20°C	0.10M	U		K1=12.08 B2=20.83	1967BAa (54325)	1002
UO2++	gl	KNO3	28°C	0.10M	U		K1=13.12	1966RSa (54326)	1003
UO2++	sp	oth/un	35°C	?	U		K1=4.91	1959DGd (54327)	1004
UO2++	dis	NaClO4	25°C	0.10M	U		K(UO2+HL+H)=-0.62	1956HOa (54328)	1005
							K(UO2+HL)=2.2		
							K(UO2+HL+2H)=-4.5		
							B((UO2)L(OH))=12.1		

****

C7H6O3 H2L CAS 99-96-7 (1371)

4-Hydroxybenzoic acid; HO.C6H4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	NaClO4	31°C	0.10M	U	M	K(UO2+HL+A)=5.19	1971RBc (54436)	1006
							K(UO2+HL+B)=4.68		
HA=phenylacetic acid, HB=phenoxyacetic acid									

****

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
UO2++	gl	NaClO4	25°C	0.20M	U	M	K1=8.10	1986SLb	(54545)1007
							K(UO2(ida)+L)=7.41		
							K(UO2(nta)+L)=6.97		
							K(UO2(edta)+L)=4.85		
UO2++	gl	NaClO4	31°C	0.10M	U			1973JKa	(54546)1008
							K(UO2+HL)=14.35		
							K(UO2HL+HL)=11.79		
UO2++	sp	NaClO4	30°C	0.10M	U	IH		1971SOa	(54547)1009
							K(?)=4.40		
Range of ionic strength 0.02-0.20. DH=6.7 kJ mol-1									
K(?)(I=0.02)=4.49, K(?)(I=0.20)=4.38							pH=4.5		
UO2++	gl	diox/w	30°C	50%	U			1971VMa	(54548)1010
							K(UO2+HL)=14.73		
							K(UO2HL+HL)=10.55		
Medium: 50% dioxan, 0.1 M NaClO4									
UO2++	gl	NaClO4	25°C	0.20M	U			1968OCa	(54549)1011
							K(UO2+H2L)=2.10		
							K(UO2+H2L=UO2HL+H)=-0.66		
K(2UO2+2H2L=(UO2)2HL2+3H)=-4.17									
UO2++	gl	KNO3	28°C	0.10M	U		K1=11.98	1966RSa	(54550)1012
UO2++	sp	oth/un	25°C	?	U			1965DDb	(54551)1013
							K(UO2+H2L=UO2HL+H)=3.70		

****

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
UO2++	gl	NaClO4	31°C	0.10M	U			1973JKa	(54589)1014
							K(UO2+HL)=13.16		
							K(UO2HL+HL)=11.41		
UO2++	gl	diox/w	30°C	50%	U			1971VMa	(54590)1015
							K(UO2+HL)=12.75		
Medium: 50% dioxan, 0.1 M NaClO4									
UO2++	gl	NaClO4	25°C	0.20M	U			1968OCa	(54591)1016
							K(UO2+H2L)=1.51		

K(UO2+H2L=UO2HL+H)=-1.00
****
C7H6O4 H3L Protocatechuic CAS 99-50-3 (875)
3,4-Dihydroxybenzoic acid; C6H3(OH)2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl NaClO4 25°C 0.20M U M K1=15.47 1986SLb (54706)1017
K(UO2(ida)+L)=15.04
K(UO2(nta)+L)=14.50
K(UO2(edta)+L)=11.63
****
C7H6O4 H3L CAS 99-10-5 (4409)
3,5-Dihydroxybenzoic acid; C6H3(OH)2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl NaClO4 25°C 0.20M U 1968OCa (54715)1018
K(UO2+H2L)=2.13
K(UO2+H2L=UO2HL+H)=-2.02
****
C7H6O5 H4L CAS 83-30-7 (4410)
2,4,6-Trihydroxybenzoic acid; (OH)3.C6H2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp NaClO4 ? 0.10M U 1969HKb (54726)1019
K(UO2+H4L=UO2H2L+2H)=-3.32
K(UO2+H3L=UO2H2L+H)=-0.92
K(UO2H2L+H3L=UO2(H2L)2+H)=-1.08
****
C7H6O5 H4L Gallic acid CAS 149-91-7 (446)
3,4,5-Trihydroxybenzoic acid; C6H2(OH)3.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp oth/un 25°C ? U K1=25.60 1989WZa (54768)1020

UO2++ sp NaClO4 ? 0.10M U M 1969HSa (54769)1021
K(UO2+H3L)=2.3
K(UO2+2HL)=27.5
K(UO2(OH)2UO2HL+H3L=(UO2)2(OH)2HLH2L+H)=-4.1; K(UO2(CO3)3+2H3L=UO2(HL)2+
3HCO3+H)=-5.61. Data for other complexes also given
****
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
---
UO2++ kin NaClO4 25°C 1.0M C 1985GBa (55062)1022

```
                                        K(UO2(OH)+HL)=3.21
                                        K(UO2(OH)+OH)=8.58
-------------------------------------------------------------------------------
UO2++      ix  oth/un 25°C 0.10M U       K1=11.0   B2=19.20  1979CPa (55063)1023
                                        K(UO2L+H)=2.1
                                        K(UO2L+2H)=5.85
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U       K1=11.20  B2=19.61  1973JKa (55064)1024
-------------------------------------------------------------------------------
UO2++      sp  NaClO4   ?  0.10M U       K1=11.27  B2=19.41  1968HSa (55065)1025
                                        K(UO2+HL)=2.07
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.20M U       K1=10.85  B2=19.38  1967AMa (55066)1026
-------------------------------------------------------------------------------
UO2++      gl  KNO3   20°C 0.10M U       K1=11.25  B2=18.75  1967BAa (55067)1027
-------------------------------------------------------------------------------
UO2++      gl  KNO3   28°C 0.10M U       K1=10.70       1966RSa (55068)1028
-------------------------------------------------------------------------------
UO2++      vlt NaNO3  20°C  1.0M U       K1=5.1         1964HAa (55069)1029
Metal ion: UO2+
-------------------------------------------------------------------------------
UO2++      vlt NaNO3  20°C  1.0M U       K1=11.7   B2=17.6   1964HAa (55070)1030
-------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U  I    K1=10.62       1964RMc (55071)1031
At I=1.0 M K1=10.44
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.10M U       K1=11.14  B2=19.20  1960BSb (55072)1032
-------------------------------------------------------------------------------
UO2++      sp  oth/un 25°C .015M U                      1949FAa (55073)1033
                                        K(UO2+HL)=3.89
*******************************************************************************
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
-------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.50M U      T K1=10.77  B2=18.45  1979LPe (55104)1034
                                        B((UO2)2L)=13.07
                                        B((UO2)(OH)L)=4.21
                                        B((UO2)(OH)L2)=11.37
*******************************************************************************
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
-------------------------------------------------------------------------------
UO2++      gl  alc/w  24°C  20%  C    M   K1=2.95        1996MIa (55268)1035
                                        K(UO2(ada)+L)=3.78
Medium: 20% w/w EtOH/H2O, 0.10 M KNO3.
ada: N-(acetamido)-iminodiethanoic acid.
```

```
--------------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  50%  U        K1=5.15   B2=9.05   1973RSa (55269)1036
Medium: 50% dioxan, 0.1 M NaClO4
********************************************************************************
C7H7NO2                HL    Salicylamide     CAS 65-45-2  (3155)
2-Hydroxybenzamide; HO.C6H4.CO.NH2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      sp  oth/un   ?     ?  U        K1=6.40   B2=11.37  1953CSb (55332)1037
********************************************************************************
C7H7NO2                HL                      CAS 495-18-1  (184)
Benzohydroxamic acid; C6H5.CO.NH.OH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaNO3  25°C 0.10M M        K1=7.42   B2=14.19  1996KSc (55519)1038
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M C        K1=7.49   B2=14.17  1989KUb (55520)1039
--------------------------------------------------------------------------------
UO2++      gl  diox/w 37°C  30%  C    M   K1=6.93        1983MAd (55521)1040
                                        B(UO2(bpy)L)=8.23
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U        K1=9.03   B2=17.94  1969DSb (55522)1041
--------------------------------------------------------------------------------
UO2++      sp  NaClO4 20°C  1.0M U        K1=7.72        1966MRa (55523)1042
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.10M U        K1=8.72   B2=16.77  1965BGa (55524)1043
Medium: HClO4
********************************************************************************
C7H7NO3               H2L                      CAS 89-73-6  (204)
2-Hydroxybenzohydroxamic acid (salicylhydroxamic acid); HO.C6H4.CO.NHOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaNO3  25°C 0.10M M        K1=11.93  B2=17.78  1996KSc (55613)1044
--------------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  50%  U        K1=7.31        1977DJb (55614)1045
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U        K1=7.71   B2=14.51  1969DSb (55615)1046
--------------------------------------------------------------------------------
UO2++      EMF mixed  30°C  50%  U        K1=6.70   B2=12.16  1969GMc (55616)1047
Medium: 50% acetone/H2O, 0.5 M NaClO4
********************************************************************************
C7H7NO3               H2L                        (1112)
4-Aminosalicylic acid; H2N.C6H3(OH).COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      sp  NaClO4 22°C 0.10M U        K1=13.0   B2=22.6   1970HSb (55642)1048
```

```
--------------------------------------------------------------------------------
UO2++      gl  KNO3   28°C 0.10M U        K1=14.41       1966RSa (55643)1049
********************************************************************************
C7H7NO6S              H2L                      CAS 35379-88-5  (4464)
3-Nitro-p-cresol-5-sulfonic acid; (CH3)(HO).C6H2(NO2).SO3H
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      dis NaCl   25°C  1.0M U        K1=5.90        1971BEa (55700)1050
********************************************************************************
C7H8N2O2               HL                       CAS 5623-04-1  (1917)
2-Amino-benzohydroxamic acid; H2N.C6H3.CO.NH.OH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M C        K1=7.82   B2=14.71  1989KUb (55855)1051
********************************************************************************
C7H8O2                H2L    Methylcatechol   CAS 452-86-8  (525)
1,2-Dihydroxy-4-methylbenzene; CH3.C6H3(OH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.20M U    M   K1=13.94  B2=23.39  1990SSc (56081)1052
                                          K(UO2(IMDA)+L)=12.54
                                          K(UO2(NTA)+L)=11.96
                                          K(UO2(HEDTA)+L)=11.49
                                          K(UO2(EDTA)+L)=10.94
K(UO2(CDTA)+L)=10.89, K(UO2(DTPA)+L)=9.60
********************************************************************************
C7H10N2O3S             HL                       CAS 71691-06-0  (1247)
2-(N-Pyrrolideneimino)ethane sulfonic acid; C4H4N.CH:N.CH2.CH2.SO3H
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.10M U T      K1=10.50  B2=18.35  1979GSa (56693)1053
********************************************************************************
C7H10O3               H2L                        (793)
Heptane-2,4,6-trione; CH3.CO.CH2.CO.CH2.CO.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      sp  alc/w  25°C 70 %  U                       1991HKe (56718)1054
                                        B((UO2)HL)=8.48
Medium: 70% v/v MeOH/H2O, 0.5 M NaClO4
********************************************************************************
C7H11N3O2              L                        CAS 7389-87-9  (3162)
Histidine methyl ester
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
```

UO2++ gl oth/un 25°C 0.20M U K1=5.76 1957LDa (57006)1055
****
C7H12N2O2 HL (6181)
2-(N-2-Pyrrolidimino)propanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl NaClO4 25°C 0.10M U TIH B2=22.72 1988GRb (57074)1056
35 C:B2=22.82, 45 C:22.92. DH(B2)=18.1 kJ mol-1, DS=495.8 J K-1 mol-1
****
C7H12O2 HL CAS 7424-54-6 (4421)
Heptane-3,5-dione; CH3.CH2.CO.CH2.CO.CH2.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp NaClO4 25°C 0.5M C K1=7.70 1998BLa (57247)1057
****
C7H12O4 HL CAS 96740-23-7 (2249)
1,5-Dimethoxy-pent-2,4-dione, CH3.O.CH2.CO.CH2.CO.CH2.O.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 24°C 50% U K1=8.7 1979ACa (57295)1058
****
C7H12O4 H2L Pimelic acid CAS 111-16-0 (985)
1,7-Heptanedioic acid; HOOC.(CH2)5.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl KNO3 25°C 0.50M U K1=3.68 1969VOb (57312)1059
K(UO2+HL)=2.45
****
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
---
UO2++ gl KNO3 25°C 0.50M U K1=6.36 B2=11.04 1969VOb (57374)1060
****
C7H13NO4S HL (6310)
Acetylacetone-2-aminoethane sulfonic acid schiff base;
CH3.CO.CH2.C(CH3):N.CH2.CH2.HSO3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 25°C 50% U T H K1=15.40 1976OMa (57536)1061
****
C7H21N2O10P3 H6L (7004)
N-(2-Hydroxyethyl)-1,2-diaminoethane-N,N'N'-trimethylenephosphonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	KCl	25°C	0.10M	U		K1=10.04 K(UO2+HL)=7.65		1974KRd (58374)	1062

C8H4O4Cl2 H2L CAS 16110-99-9 (1173)
3,6-Dichloro-phthalic acid; Cl2.C6H2(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	NaClO4	30°C	0.10M	U		K1=3.83		1976PJa (58398)	1063

C8H5NO6 H2L CAS 603-11-2 (1171)
3-Nitro-phthalic acid; O2N.C6H3(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	NaClO4	30°C	0.10M	U		K1=3.86		1976PJa (58435)	1064
UO2++	ix	KNO3	25°C	1.0M	U		K1=3.6		1973NKb (58436)	1065
UO2++	gl	NaClO4	31°C	0.10M	U		K1=3.82		1967SPe (58437)	1066

C8H5NO6 H2L CAS 610-22-5 (1172)
4-Nitro-phthalic acid; O2N.C6H3(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	NaClO4	30°C	0.10M	U		K1=3.99		1976PJa (58447)	1067
UO2++	ix	KNO3	25°C	1.0M	U		K1=3.6		1973NKb (58448)	1068
UO2++	gl	NaClO4	31°C	0.10M	U		K1=4.02		1967SPe (58449)	1069

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
UO2++	gl	diox/w	30°C	75%	U		K1=7.48	B2=14.45	1977AHb (58692)	1070
UO2++	gl	diox/w	30°C	75%	U		K1=8.7	B2=16.62	1965RGa (58693)	1071

C8H5O4Br H2L CAS 116-69-8 (1169)
3-Bromo-phthalic acid; Br.C6H3(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	NaClO4	30°C	0.10M	U		K1=4.30		1976PJa (58722)	1072

C8H5O4Cl H2L CAS 27563-65-1 (1168)
3-Chloro-phthalic acid; Cl.C6H3(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	NaClO4	30°C	0.10M	U		K1=4.20	1976PJa (58729)	1073

****
C8H5O4I H2L CAS 6737-34-3 (1170)
3-Iodo-phthalic acid; I.C6H3(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	NaClO4	30°C	0.10M	U		K1=4.07	1976PJa (58730)	1074

****
C8H6N2O HL CAS 17056-99-4 (3220)
5-Hydroxyquinoxaline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	diox/w	20°C	50%	U		K1=8.40 B2=15.91	1954IRa (58748)	1075

Medium: 50% dioxan, I=0.3 M NaClO4
****
C8H6N2O HL (6290)
8-Hydroxycinnoline, (2-Hydroxybenzo)pyrimidine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	diox/w	20°C	50%	U		K1=8.68 B2=15.84	1954IRa (58769)	1076

Medium: 50% dioxan, 0.3 M NaClO4
****
C8H6N2O HL 8-Quinazolinol CAS 7757-02-2 (3221)
8-Hydroxyquinazoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	diox/w	20°C	50%	U		K1=8.99 B2=16.69	1954IRa (58779)	1077

Medium: 50% dioxan, 0.3 M NaClO4
****
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
UO2++	gl	alc/w	24°C	20%	C	M	K1=4.96	1996MIa (59021)	1078
							K(UO2(ada)+L)=5.19		
UO2++	gl	NaClO4	25°C	0.50M	C		K1=4.97	1989NMa (59022)	1079

Medium: 20% w/w EtOH/H2O, 0.10 M KNO3.
ada: N-(acetamido)-iminodiethanoic acid.

```
UO2++      gl  NaClO4 25°C 0.10M U  I     K1=4.742  B2=7.73   1987GMa (59023)1080
I=0.4: K1=4.46, B2=7.38; I=0.7: K1=4.43, B2=6.97
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.20M U T                      1985KMc (59024)1081
                                        K(UO2A+L)=3.90
H2A=iminodiacetic acid; 5 C:K=4.08; 45 C: K=3.68, DH=-16.3 kJ mol-1,
DS=21 J K-1 mol-1
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U        K1=4.88        1976PJa (59025)1082
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U    M   K1=4.78        1973KJa (59026)1083
                                       K(UO2+L+A)=7.32
                                       K(UO2+L+B)=7.63
H2A=adipic acid, H2B=succinic acid
--------------------------------------------------------------------------------
UO2++      ix  KNO3   25°C  1.0M U        K1=4.1         1973NKb (59027)1084
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 1.00M U        K1=4.38        1967RMc (59028)1085
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U        K1=4.81        1967SPe (59029)1086
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C  1.0M U        K1=4.38        1964RAa (59030)1087
********************************************************************************
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
--------------------------------------------------------------------------------
UO2++      gl  alc/w  27°C  75%  U  I     K1=8.48   B2=15.98  1976LGa (59119)1088
Data in 75% EtOH.  Data also in 75% acetone and 75% dioxan
********************************************************************************
C8H8NO2Cl              HL                     CAS 2153-11-9  (4570)
N-Chloroacetyl-N-phenylhydroxylamine; Cl.CH2.CO.N(C6H5).OH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      EMF mixed  30°C  50%  U        K1=7.20   B2=13.00  1970GSf (59285)1089
Medium: 50% acetone/H2O, 0.5 M NaClO4
********************************************************************************
C8H8O2                 HL    Phenylacetic     CAS 103-82-2  (1361)
Phenylethanoic acid; C6H5.CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      EMF NaClO4 25°C 1.00M C   H    K1=2.22        1992BCb (59568)1090
DH(K1)=10.80 kJ mol-1, DS=79 J K-1 mol-1
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U    M                  1971RBc (59569)1091
                                       K(UO2+L+A)=3.72
HA=phenoxyacetic acid
```

```
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U        K1=3.21        1968RSa (59570)1092
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U        K1=3.25        1968RSf (59571)1093
********************************************************************************
C8H8O2                 HL                     CAS 583-80-2  (3191)
beta-Methyltropolone;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      sp  alc/w    ?   50%  U        K1=9.62   B2=16.60  1965DSb (59605)1094
Medium: 50% EtOH, 0.5 M KNO3. By glass electrode: K2=6.93
********************************************************************************
C8H8O2S                HL    3-Thenoylaceton  CAS 21808-13-9  (2736)
3-Thenoylacetone, 1-(3'-Thienyl)butane-1,3-dione; C4H3S.CO.CH2.CO.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  75%  U        K1=12.3   B2=22.62  1965RGa (59647)1095
********************************************************************************
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
--------------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  50%  U        K1=12.18       1971VMa (59703)1096
Medium: 50% dioxan, 0.1 M NaClO4
********************************************************************************
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
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.20M U T                      1985KMc (59883)1097
                                       K(UO2A+L)=3.54
H2A=iminodiacetic acid; 5 C:K=3.66; 45 C: K=3.46, DH=-10.0 kJ mol-1,
DS=33 J K-1 mol-1
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 20°C 1.00M C      T K1=2.57   B2=4.10   1974MTa (59884)1098
                                        B3=5.32
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U        K1=2.47        1967VAa (59885)1099
                                       K(UO2(OH)L+H)=3.9
                                       K((UO2(OH)L)2+2H)=4.94
********************************************************************************
C8H8O3                 HL    m-Anisic acid    CAS 586-38-9  (2804)
3-Methoxybenzoic acid; CH3O.C6H4.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
```

```
UO2++      dis NaClO4 25°C 0.10M U                      1956HOa (59922)1100
                                        B((UO2)LOH)=11.9
                                        K(UO2+HL+2H)=-5.85
**************************************************************************
C8H8O3                 HL                     CAS 121-33-5  (4476)
4-Hydroxy-3-methoxybenzaldehyde; CH3O.C6H3(OH).CHO
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
UO2++      con oth/un   ?     ?  U        B2=6.04        1972LLa (59934)1101
--------------------------------------------------------------------------
UO2++      sp  oth/un   ?     ?  U        B2=5.51        1972LLa (59935)1102
**************************************************************************
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
--------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  50%  U        K1=13.46       1971VMa (60000)1103
Medium: 50% dioxan, 0.1 M NaClO4
**************************************************************************
C8H8O3                 HL    Phenoxyacetic    CAS 122-59-8  (1153)
Phenoxyethanoic acid; C6H5.O.CH2.COOH
--------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M C    M                    1975BSa (60042)1104
                                        B((UO2)LA)=7.64
                                        K(UO2L2+UO2A2=2UO2LA)=-0.03
                                        K(UO2L+A)=5.20
                                        K(UO2A+L)=2.45
H2A=maleic aicd
--------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M C    M                    1975BSa (60043)1105
                                        B((UO2)LA)=5.08
                                        K(UO2L2+UO2A2=2UO2LA)=-0.42
                                        K(UO2L+A)=2.64
                                        K(UO2A+L)=2.03
H2A=fumaric acid
--------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M C    M                    1975BSa (60044)1106
                                        B((UO2)LA)=5.79
                                        K(UO2L2+UO2A2=2UO2LA)=-0.73
                                        K(UO2L+A)=3.35
                                        K(UO2A+L)=1.71
H2A=adipic acid
--------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M C    M                    1975BSa (60045)1107
                                        B((UO2)LA)=6.84
                                        K(UO2L2+UO2A2=2UO2LA)=0.69
```

```
                                        K(UO2L+A)=4.40
                                        K(UO2A+L)=3.13
H3A=thiomalic acid
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M C    M                  1975BSa (60046)1108
                                        B((UO2)LA)=5.12
                                        K(UO2L+UO2A2=UO2LA+UO2A)=2.09
                                        K(UO2L+A)=2.68
                                        K(UO2A+L)=2.96
HL=pyruvic acid
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U        K2=2.59        1968RSa (60047)1109
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 31°C 0.10M U        K1=2.41        1968RSf (60048)1110
********************************************************************************
C8H8O4                 HL                      CAS 520-45-6  (4478)
3-Acetyl-2-hydroxy-6-methylpyran-4-one, Dehydroethanoic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  diox/w 35°C  50%  U        K1=6.52   B2=11.62  1971MAa (60100)1111
Medium: 50% dioxan, 0.1 M NaClO4
********************************************************************************
C8H8O9               H4L                        (6951)
Tetrahydrofuran-2,3,4,5-tetracarboxylic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.10M C   H                  2000MNa (60139)1112
                                        B(UO2HL)=11.18
                                        B(UO2H2L)=14.27
                                        B(UO2HL2)=16.04
By calorimetry: DH(UO2+HL)=22.5 kJ mol-1, DS=166. DH(UO2+H2L)=18.2, DS=121
********************************************************************************
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
--------------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  75%  U        K1=10.14  B2=19.10  1961MAe (60164)1113
********************************************************************************
C8H9NO2                HL                      CAS 17194-82-0  (1382)
2-Hydroxyacetophenone oxime; HO.C6H4.C(CH3):NOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  50%  U        K1=9.33   B2=17.26  1982UVa (60218)1114
********************************************************************************
C8H9NO2                HL                        (2591)
N-Phenyl-N-acetohydroxamic acid; CH3.CO.N(OH)C6H5
```

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      EMF mixed  30°C  50%  U        K1=8.56   B2=15.36  1971GSc (60286)1115
Medium: 50% acetone/H2O, 0.5 M NaClO4
********************************************************************************
C8H9NO2                HL                      CAS 5330-97-2  (6248)
Phenylacetohydroxamic acid; C6H5.CH2.CO.NH.OH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      sp  NaClO4 30°C 0.10M U        K1=8.44   B2=15.78  1980RSb (60357)1116
********************************************************************************
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
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.05M M        K1=3.90        1975DPb (60377)1117
********************************************************************************
C8H9NO2S               HL                      CAS 6310-11-8  (4576)
3-Mercaptoacetamidophenol; HS.CH2.CO.NH.C6H4.OH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  oth/un 17°C    ?  U        K1=6.57   B2=12.28  1973KPd (60386)1118
********************************************************************************
C8H9NO3                HL    Pyridoxal         CAS 65-22-5  (110)
3-Hydroxy-5-(hydroxymethyl)-2-methyl-4-pyridinecarboxaldehyde;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.10M C        K1=7.14   B2=13.34  1978MCa (60429)1119
********************************************************************************
C8H9NO3               H2L                      CAS 26071-07-8  (209)
5-Methylsalicylhydroxamic acid; CH3.C6H3(OH).CO.NH.OH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  50%  U        K1=7.22        1977DJb (60439)1120
********************************************************************************
C8H9NO3                HL                      CAS 24618-17-5  (4526)
N-Methylsalicylohydroxamic acid; HO.C6H4.CO.N(CH3)OH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      EMF mixed  30°C  50%  U        K1=5.92   B2=10.40  1969GMc (60452)1121
Medium: 50% acetone, 0.5 M NaClO4
********************************************************************************
C8H9NO4                H2L                       (4520)
```

Dehydroethanoic acid oxime;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	diox/w	35°C	50%	U			1971MAa	(60506)1122
							K(UO2+HL)=6.62		
							K(UO2+2HL)=11.63		

Medium: 50% dioxan, 0.1 M NaClO4

****

C8H9N3OS H2L CAS 5351-90-6 (2103)
Salicylidenethiosemicarbazone; HO.C6H4.CH:N.NH.CS.NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	NaClO4	25°C	0.05M	U		K1=18.46	1987CDa	(60559)1123

****

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
UO2++	EMF	oth/un	25°C	0.10M	U		K1=9.52	1967DSa	(60661)1124

****

C8H11NO3 HL Vitamin B6 CAS 65-23-6 (254)
5-Hydroxy-6-methyl-3,4-pyridinedimethanol, Pyridoxine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	KCl	30°C	0.50M	U		K1=11.49 B2=19.96	1971OSb	(61125)1125
							K3=3.76		

****

C8H12N2O3 H2L Barbital CAS 57-44-3 (2744)
5,5-Diethylbarbituric acid, Veronal, Barbitone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	alc/w	20°C	50%	C	TIH	K2=5.48	1987EAa	(61445)1126
							K3=3.65		

DH(K2)=-29.05 kJ mol-1

****

C8H12O5 H2L CAS 103435-40-1 (4481)
1-Hydroxy-1,2-cyclohexanedicarboxylic acid; HO.C6H9(COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	oth	oth/un	?	?	U			1972MKc	(61733)1127
							K(UO2+H2L=UO2(H-1)L+3H)=-8.63		

****

C8H14O4 H2L Suberic acid CAS 505-48-6 (517)
Octanedioic acid; HOOC.(CH2)6.COOH

```
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U TI M   K1=5.81        1987AKb (62101)1128
                                          K(UO2(nta)+L)=3.45
Data for 5, 25, 45 C, I=0.05-0.2 M KNO3. Also data for 10-40% MeOH/H2O and
EtOH/H2O, 0.20 M KNO3, 25 C.
******************************************************************************
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
------------------------------------------------------------------------------
UO2++      gl  diox/w 20°C  50%  U        K1=12.29  B2=22.45  1969KSe (62170)1129
Medium: 0.025 NaClO4, 50% dioxan
******************************************************************************
C8H16N2O4              H2L                       (267)
1,2-Diaminoethane-N,N'-di(2-propanoic acid); ((CH3)(COOH).CH.NH.CH2)2
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
UO2++      EMF oth/un 25°C 0.10M U        K1=11.55       1967FSa (62476)1130
******************************************************************************
C8H16N2O4              H2L                      CAS 38937-66-5  (5912)
N,N-Dihydroxyoctanediamide; HN(OH).CO.(CH2)6.CO.NH(OH)
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
UO2++      gl  NaNO3  25°C 0.10M C        K1=12.95       1989EHa (62542)1131
                                          B((UO2)HL)=17.50
******************************************************************************
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
------------------------------------------------------------------------------
UO2++      gl  KNO3   20°C 0.10M U        K1=12.27       1979ZKb (62907)1132
                                          K(UO2+HL)=9.38
******************************************************************************
C8H20N2                 L                       CAS 373-44-4  (5746)
1,8-Diaminooctane; NH2.(CH2)8.NH2
------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
------------------------------------------------------------------------------
UO2++      sp  non-aq 25°C 100%  U        K1=3.08        1989LMb (63214)1133
Medium: propylene carbonate, 0.1 M Et4NClO4
******************************************************************************
C8H22N2O6P2            H4L    EDDIPH           CAS 13516-59-1  (1355)
Diaminoethane-N,N'-di(isopropylphosphonic)acid;(CH2.NH.C(CH3)2.PO3H2)2
```

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  KNO3   20°C 0.10M U        K1=15.30       1979ZKb (63356)1134
                                         K(UO2+H2L)=8.50
--------------------------------------------------------------------------------
UO2++      gl  oth/un 25°C 0.10M M        K1=15.84       1976MDa (63357)1135
                                         K(UO2+H2L)=8.52
********************************************************************************
C8H22N2O8P2           H4L                    CAS 55703-43-0  (1354)
N,N'-Di-(2-hydroxyethane)ethylenediamine-N,N'-dimethylphosphonic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  oth/un 25°C 0.10M M        K1=13.04       1976MRa (63371)1136
                                         K(UO2+HL)=9.51
                                         K(UO2+H2L)=6.40
********************************************************************************
C8H22N4                L                      CAS 41240-14-6  (4494)
1,5,8,12-Tetraazadodecane; NH2.(CH2)3.NH.(CH2)2.NH.(CH2)3.NH2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      EMF non-aq 25°C 100%  C   H    K1=3.75        1995CBa (63402)1137
Medium: DMSO, 0.1 M NEt4ClO4. DH=-47.3 kJ mol-1, DS=-87 J K-1 mol-1.
Method: Ag electrode and calorimetry.
********************************************************************************
C9H5NOBr2             HL                     CAS 521-74-4  (3279)
5,7-Dibromo-8-hydroxyquinoline;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  diox/w 35°C  75%  U        K1=9.63   B2=17.65  1970GMh (63524)1138
Medium: 75% v/v dioxan, 0.2 M NaClO4
********************************************************************************
C9H5NOCl2             HL                     CAS 773-76-2  (3278)
5,7-Dichloro-8-hydroxyquinoline;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  diox/w 35°C  75%  U        K1=9.55   B2=17.48  1970GMh (63548)1139
Medium: 75% v/v dioxan, 0.2 M NaClO4
********************************************************************************
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
--------------------------------------------------------------------------------
UO2++      gl  diox/w 35°C  75%  U        K1=9.50   B2=17.40  1971MAb (63573)1140
Medium: 75% v/v dioxan, 0.1 M NaClO4
```

****
C9H5NO2Br2 HL CAS 16846-41-1 (4666)
5,7-Dibromo-8-hydroxyquinoline N-oxide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 35°C 75% U K1=11.59 B2=20.69 1970GMh (63584)1141
Medium: 75% v/v dioxan, 0.2 M NaClO4
****
C9H5NO2Cl2 HL CAS 21168-33-2 (4665)
5,7-Dichloro-8-hydroxyquinoline N-oxide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 35°C 75% U K1=11.46 B2=20.46 1970GMh (63594)1142
Medium: 75% dioxan, 0.1 M NaClO4
****
C9H5NO4 HL CAS 22308-86-7 (4607)
3-Nitroso-4-hydroxycoumarin (oximidobenzotetronic acid);

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 21°C 50% U K1=3.48 B2=6.38 1970MGd (63616)1143
Medium: 50% dioxan, 0.3 M NaClO4
****
C9H5N3O5 HL CAS 1084-32-8 (4608)
5,7-Dinitro-8-hydroxyquinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 35°C 75% U K1=6.43 B2=11.56 1970GMh (63629)1144
Medium: 75% dioxan, 0.2 M NaClO4
****
C9H5N3O6 HL CAS 21168-36-3 (4609)
5,7-Dinitro-8-hydroxyquinoline-N-oxide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 35°C 75% U K1=6.03 B2=11.00 1970GMh (63637)1145
Medium: 75% v/v dioxan, 0.2 M NaClO4
****
C9H6NO4BrS H2L CAS 3062-37-1 (3889)
7-Bromo-8-hydroxyquinoline-5-sulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp oth/un 30°C 0.10M U K1=9.04 1970ABd (63706)1146
****
C9H6NO4ClS H2L CAS 3244-71-1 (4687)
5-Chloro-8-hydroxyquinoline-7-sulfonic acid;

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      sp  oth/un 25°C 0.02M U T H                  1970BBb (63712)1147
                                        K(UO2+2HL=UO2L2+2H)=8.40
30 C: K=8.47, 35 C: K=8.50, 40 C: K=8.52, 45 C: K=8.90
DH=-17.14 kJ mol-1, DS=218.6 J K-1 mol-1
********************************************************************************
C9H6NO4IS            H2L                     CAS 3075-21-6  (4689)
5-Iodo-8-hydroxyquinoline-7-sulfonic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      oth oth/un 25°C  0.0  U        B2=8.85        1972BBb (63718)1148
********************************************************************************
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
--------------------------------------------------------------------------------
UO2++      sp  NaClO4 45°C  1.0M C        K1=1.16        1994DAb (63833)1149
Data for 30-30 C. DH(K1)=36.6 kJ mol-1, DS(K1)=106.3 J K-1 mol-1.
By kinetics at 45 C, K1=1.15.
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M C        K1=9.30   B2=14.10  1985ZHa (63834)1150
--------------------------------------------------------------------------------
UO2++      sp  oth/un 25°C 0.10M U        B2=13.32       1972HKc (63835)1151
pH=5.08
********************************************************************************
C9H6O3                HL                      CAS 939-19-5  (8274)
3-Hydroxycoumarin;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      sp  KNO3    RT  0.10M C        K1=6.48   B2=10.62  1983SSe (63937)1152
********************************************************************************
C9H7NO                HL    Oxine             CAS 148-24-3  (504)
8-Hydroxyquinoline (8-quinolinol);
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      vlt diox/w 20°C  30%  U T H    K1=2.02   B2=2.30   1985SKb (64367)1153
                                        B3=4.00
                                        K(UO2L+succinate)=3.72
30 C, K1=1.60, B2=2.89. 40 C, K1=1.30, B2=2.86. DH(K1)=-63.1 kJ mol-1
DH(K2)=48.9. Medium: 30% EtOH/H2O, 0.6 M KCl
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U T  M   K1=9.66        1985VSb (64368)1154
                                        B(UO2AL)=17.33
                                        K(UO2A+L)=12.20
```

```
                                        K(UO2L+A)=7.67
H2A=phthalic acid
--------------------------------------------------------------------------------
UO2++      gl  diox/w 25°C  50%  U        K1=11.42  B2=21.09  1971CAd (64369)1155
Medium: 50% dioxan, 0.1 M NaClO4
--------------------------------------------------------------------------------
UO2++      sol oth/un 25°C    ?  U                      1958KKa (64370)1156
                                        Ks(UO2HL3)=-28.72
--------------------------------------------------------------------------------
UO2++      gl  diox/w 20°C  50%  U        K1=11.25  B2=20.89  1954IRa (64371)1157
********************************************************************************
C9H7NO2                HL                     CAS 1127-45-3  (4614)
8-Hydroxyquinoline-N-oxide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  diox/w 25°C  50%  U        K1=10.45  B2=18.00  1970GMb (64413)1158
Medium: 50% dioxan, 0.3 M NaClO4
********************************************************************************
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
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U        K1=8.52   B2=15.68  1959RGa (64584)1159
                                        K(UO2L2OH+H)=6.68
                                        K((UO2L2OH)2+2H=2UO2L2)=11.7
********************************************************************************
C9H7NO4S             H2L                    CAS 3062-35-9  (4676)
8-Hydroxyquinoline-7-sulfonic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      sp  oth/un 25°C 0.02M U T H                 1970BBb (64596)1160
                                        K(UO2+2HL=UO2L2+2H)=8.90
30 C, K=8.96, 35 C, K=9.04, 40 C, K=9.06, 45 C, K=9.14
DH=-22.15 kJ mol-1, DS=246.6 J K-1 mol-1
********************************************************************************
C9H7N3O2S            H2L    TAR             CAS 2246-46-0  (707)
4-(2'-Thiazolylazo)-resorcinol; C3H2NS.N:N.C6H3(OH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  alc/w  25°C  50%  U                      1967NPb (64734)1161
                                        K(UO2+HL)=10.7
                                        K(UO2(HL)+HL)=9.7
Medium: 50% MeOH, 0.1 M NaClO4
--------------------------------------------------------------------------------
UO2++      sp  NaClO4 20°C 0.10M U        K1=11.35       1967SIc (64735)1162
                                        K(UO2L+H)=4.5
```

K(UO2+HL)=9.8

****

C9H8N2O HL CAS 17056-96-1 (3258)
8-Hydroxy-4-methylcinnoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	diox/w	20°C	50%	U		K1=9.00	B2=16.30	1954IRa (64791)	1163

Medium: 50% dioxan, 0.3 M NaClO4

****

C9H8N2O4S2 HL CAS 219931-32-5 (8394)
3-Phenylsulfonamidorhodanine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	sp	alc/w	30°C	20%	C	T H	K1=8.43	B2=15.82	1998EGa (64834)	1164

Medium: 20% v/v EtOH/H2O, 0.10 M KCl. Also data for 35 and 45 C.
DH and DS values reported

****

C9H8N5OCl L (2723)
4-(4'-Chlorophenylazo)-3-amino-pyrazolin-5-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	sp	alc/w	20°C	100%	U	H	K1=6.65	B2=10.36	1983EAa (64863)	1165

****

C9H8N6O3 L CAS 76043-30-6 (2724)
4-(4'-Nitrophenylazo)-3-amino-pyrazolin-5-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	sp	alc/w	20°C	100%	U	H	K1=7.0	B2=11.0	1983EAa (64864)	1166

****

C9H8O2 HL CAS 140-10-3 (3245)
trans-Cinnamic acid; C6H5.CH:CH.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	NaClO4	25°C	0.10M	U		K1=3.08	B2=5.86	1983GAa (64873)	1167

****

C9H8O4 H2L CAS 97652-17-0 (3855)
3-Carboxy-4-methyltropolone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	sp	NaClO4	?	0.20M	U		K1=9.60		1967GDb (64956)	1168

By glass electrode: K1=9.72,K2=6.78

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	sp	KNO3	?	0.50M	U		K1=9.22	B2=15.97	1965DSb (64957)	1169

By glass electrode: K2=6.80

****
C9H9N3O2S2 HL Sulfathiazole CAS 72-14-0 (8357)
4-Amino-N-2-thiazolyl-benzenesulfonamide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl alc/w 25°C 50% C K1=6.40 B2=12.24 1999GAa (65136)1170
Medium: 50% EtOH/H2O, 0.10 M NaNO3.
****
C9H9N5O L CAS 13197-14-9 (2720)
4-Phenylazo-3-amino-pyrazolin-5-one;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp alc/w 20°C 100% U H K1=5.86 B2=8.41 1983EAa (65155)1171
****
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
---
UO2++ gl KNO3 25°C 0.10M U K1=7.26 B2=13.89 1967HAb (65230)1172
****
C9H10O2 HL CAS 1450-72-2 (4596)
2-Hydroxy-5-methylacetophenone; HO(CH3).C6H3.CO.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp oth/un 30°C ? U 1970GMe (65337)1173
K(Uo2+2HL)=7.15
****
C9H10O2 HL Benzylacetic CAS 501-52-0 (1362)
3-Phenylpropanoic acid; C6H5.CH2.CH2.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ oth NaClO4 31°C 0.10M U M 1972SSb (65377)1174
K(UO2+benzoate+L)=6.05
K(UO2+phenylacetate+L)=6.16
K(UO2+hydroxybenzoate+L)=5.42
****
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
---
UO2++ gl NaClO4 30°C 0.19M U K1=6.48 B2=11.63 1985MSb (65652)1175
****
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
--------------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  75%  U        K1=10.18  B2=19.21  1961MAe (65677)1176
********************************************************************************
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
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M C        K1=6.77   B2=13.91  1983NMb (65983)1177
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U                      1980RRa (65984)1178
                                        K(UO2+HL)=1.84
--------------------------------------------------------------------------------
UO2++      EMF oth/un 25°C 0.50M U        K1=6.49        1973SKb (65985)1179
--------------------------------------------------------------------------------
UO2++      sp  oth/un 25°C 0.50M U        K1=6.50        1973SKb (65986)1180
--------------------------------------------------------------------------------
UO2++      gl  KCl    25°C 0.10M U T      K1=6.46   B2=12.16  1971SSc (65987)1181
K1(35 C)=6.28, K1(45 C)=6.01; B2(35 C)=11.78, B2(45 C)=11.33
********************************************************************************
C9H11NO2               HL    B-Phenylalanine  CAS 614-19-7  (187)
3-Amino-3-phenyl-propanoic acid; H2N.CH(C6H5).CH2.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      EMF NaClO4 31°C 0.10M U        K1=7.98        1977RRa (66013)1182
--------------------------------------------------------------------------------
UO2++      EMF oth/un 25°C 0.50M U        K1=6.67        1973SKb (66014)1183
By spectrophotometry K1=6.75
********************************************************************************
C9H11NO3               HL    Peonoloxime        (6250)
2-Hydroxy-4-methoxyacetophenoneoxime; CH3O.C6H3(OH).C(:NOH).CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  diox/w 28°C  50%  U        K1=9.85   B2=19.02  1979BRb (66272)1184
********************************************************************************
C9H11N3OS             H2L                        (2104)
S-Methyl-(salicylidene)isothiosemicarbazone; HO(C6H4)CH:N.N:C(NH2)SCH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      sp  NaClO4 25°C 0.05M U        K1=22.27       1987CDa (66476)1185
                                        K(H2L+UO2)=13.2
********************************************************************************
C9H11N3O2              HL                         (7179)
2-Hydroxy-acetophenone semicarbazone; HOC6H4C(CH3):NNHCONH2
--------------------------------------------------------------------------------
```

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      sp  non-aq   ?  100%  U        K1=2.84   B2=8.32   1991SKc (66488)1186
Medium: EtOH
-------------------------------------------------------------------------
UO2++      sp  alc/w    ?  100%  U        K1=2.84   B2=8.32   1991SKd (66489)1187
Medium: EtOH
*************************************************************************
C9H13N3O5               L    Cytidine         CAS 65-46-3  (2152)
Cytidine, Cytosine-1-beta-D-ribofuranoside;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      gl  KNO3   35°C 0.10M U        K1=3.5         1982RKa (67084)1188
*************************************************************************
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
-------------------------------------------------------------------------
UO2++      gl  diox/w 20°C  50%  U        K1=12.98  B2=24.26  1969KSe (67381)1189
Medium: 50% dioxan, 0.025 M NaClO4
*************************************************************************
C9H16O4               H2L    Azelaic acid     CAS 123-99-9  (3255)
Nonanedioic acid; HOOC.(CH2)7.COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U TI M   K1=5.88        1987AKb (67800)1190
                                         K(UO2(nta)+L)=4.02
Data for 5, 25, 45 C, I=0.05-0.2 M KNO3. Also data for 10-40% MeOH/H2O and
EtOH/H2O, 0.20 M KNO3, 25 C.
*************************************************************************
C9H18N2O4             H2L                    CAS 18992-11-5  (5913)
N,N-Dihydroxynonanediamide; HN(OH).CO.(CH2)7.CO.NH(OH)
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      gl  NaNO3  25°C 0.10M C         K1=13.07       1989EHa (67942)1191
                                         B((UO2)HL)=17.48
*************************************************************************
C9H28N3O15P5          10L    DTPPH            CAS 15827-60-8  (2921)
Diethylenetriamine-N,N,N',N",N"-penta(methylphosphonic acid);
H2O3PCH2.N(CH2CH2.N(CH2PO3H2)2)2  H
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      gl  KNO3   20°C 0.10M U         K1=16.87       1979ZKb (68415)1192
                                         K(UO2+HL)=13.85
                                         K(UO2+H2L)=11.59
```

K(UO2+H3L)=10.25
K(UO2+H4L)=9.00

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	diox/w	30°C	75%	U		K1=7.27	B2=13.34	1960KFc (68464)	1193

****

C10H6O3 HL CAS 481-39-0 (3295)
5-Hydroxy-1,4-naphthoquinone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	diox/w	30°C	75%	U		K1=11.84	B2=22.37	1960KFa (68481)	1194

****

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
UO2++	gl	diox/w	25°C	75%	U		K1=8.80		1974LSa (68597)	1195

****

C10H7NO2 HL CAS 132-53-6 (2524)
2-Nitroso-1-naphthol;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	diox/w	21°C	50%	U		K1=7.13	B2=13.36	1970MGd (68665)	1196

Medium: 50% dioxan, 0.3 M NaClO4

****

C10H7NO2 HL Quinaldic acid CAS 93-10-7 (2209)
Quinoline-2-carboxylic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	KNO3	25°C	0.10M	U		K1=11.68	B2=19.83	1988ZMa (68722)	1197
							K3=7.75			
UO2++	sp	non-aq	?	100%	U		B2=4.07		1972RKb (68723)	1198

Medium: EtOH

****

C10H7NO5S H2L CAS 3682-32-4 (1812)
2-Nitroso-1-hydroxynaphthalene-4-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	KNO3	35°C	0.10M	U		K1=5.16		1974LSa (68895)	1199

****

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
UO2++	gl	KNO3	25°C	0.20M	U	T HM			1986KMc (69033)	1200
							K(UO2(ida)+L)=4.86			
							K(UO2(edda)+L)=5.68			
							K(UO2(nta)+L)=4.99			

Data for 5, 45 C. DH(UO2(ida)L)=-15 kJ mol-1, DS(UO2(ida)L)=42 J K-1 mol-1
DH(UO2(edda)L)=-15, DS(UO2(edda)L)=56;DH(UO2(nta)L)=-7.5, DS(UO2(nta)L)=71

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	KCl	25°C	0.10M	U		K1=5.87		1974LSa (69034)	1201
UO2++	oth	oth/un	30°C	0.0	U		K1=6.90	B2=12.10	1973GBa (69035)	1202
UO2++	gl	NaClO4	25°C	0.10M	U		K1=5.44	B2=9.85	1966BDa (69036)	1203
							K3=2.68			

****

C10H8N2 L 2,2'-Bipyridyl CAS 366-18-7 (25)
2,2'-Bipyridine; (C5H4N)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	KNO3	25°C	0.10M	U	M	K1=3.77	B2=6.92	1985VSb (69659)	1204
							B(UO2AL)=10.44			
							K(UO2A+L)=5.31			
							K(UO2L+A)=6.67			

H2A=phthalic acid

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	diox/w	37°C	30%	C	M	K1=3.93		1983MAd (69660)	1205
							B(UO2(bha)L)=8.23			

bha: benzohydroxamic acid

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	NaClO4	30°C	0.10M	M	M	K1=3.58		1982RSb (69661)	1206
							K(UO2L+OH)=9.60			
							K(UO2(OH)L+A)=10.58			
							K(UO2+OH+A+L)=24.03			
							K(UO2(OH)L+B)=3.96			

B(UO2(OH)BL)=17.14. H2A=N,N'-1,2-ethanediylbis(2-mercaptoactamide),
H2B=N,N'-1,2-ethanediylbis(3-mercaptopropanamide).

****

C10H8N2O2S2 L (7069)
3-Benzamidorhodanine; C6H5.CO.NH.C3H2NS2:O

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	alc/w	25°C	20%	U	T H	K1=10.43	B2=16.83	1994BSd (69696)	1207
							K3=4.78			

Medium: 20% v/v EtOH/H2O, 0.1 M KCl. Also at 35 C, 45 C.

DH(K1)=-27 kJ mol-1, DH(K2)=-15, DH(K3)=-13

****

C10H8O2 H2L CAS 92-44-4 (1658)
2,3-Dihydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	KNO3	25°C	0.20M	U	M	K1=13.75 B2=23.73 K(UO2(IMDA)+L)=12.72 K(UO2(NTA)+L)=12.05 K(UO2(HEDTA)+L)=11.60 K(UO2(EDTA)+L)=11.03 K(UO2(CDTA)+L)=10.95, K(UO2(DTPA)+L)=9.83	1990SSc (69782)	1208
UO2++	gl	KNO3	20°C	0.10M	U		K1=15.0 B2=25.80 K(UO2L+H)=3.9 K(UO2HL+H)=6.5	1967BAd (69783)	1209

****

C10H8O5S H3L DHNSA (877)
2,3-Dihydroxynaphthalene-6-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	NaClO4	20°C	0.10M	U	I	K1=15.6 B2=26.20 K(UO2+HL)=6.2 K(UO2L+HL)=4.2 By glass electrode, 0.1 M KNO3: K1=15.5, K2=10.65, K(UO2+HL)=5.6, K(UO2L+HL)=4.2	1965BSd (69867)	1210

****

C10H8O7S2 H3L CAS 1330-52-5 (3904)
2-Hydroxynaphthalene-3,6-disulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	NaClO4	25°C	0.10M	U		K1=7.42 B2=13.12	1968BDc (69879)	1211

****

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
UO2++	gl	KNO3	25°C	0.20M	U	M	K1=16.39 B2=30.04 K(UO2(IMDA)+L)=14.71 K(UO2(NTA)+L)=14.64 K(UO2(HEDTA)+L)=14.20 K(UO2(EDTA)+L)=14.15 K(UO2(CDTA)+L)=13.90, K(UO2(DTPA)+L)=13.27	1990SSc (69978)	1212
UO2++	gl	NaClO4	25°C	0.10M	U		K1=13.58 B2=22.12	1968BDe (69979)	1213

```
UO2++      gl  NaClO4 30°C 0.20M U        K1=16.60  B2=28.00  1967AMa (69980)1214
-------------------------------------------------------------------------------
UO2++      gl  KNO3   20°C 0.10M U        K1=16.1        1965BSd (69981)1215
                                         K(UO2+HL)=3.9
-------------------------------------------------------------------------------
UO2++      sp  NaClO4 20°C 0.10M U        K1=16.6   B2=28.10  1965BSd (69982)1216
                                         K(UO2+HL)=4.0
                                         K(UO2L+HL)=1.5
-------------------------------------------------------------------------------
UO2++      gl  oth/un 25°C 0.11M U                  1957JAc (69983)1217
                                         K(UO2+H2L=UO2L+2H)=-4.62
*******************************************************************************
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
-------------------------------------------------------------------------------
UO2++      gl  diox/w 20°C  50%  U  I     K1=9.4    B2=17.4   1954IRa (70056)1218
Medium: 50% dioxan, 0.3 M NaClO4
*******************************************************************************
C10H9NO                HL                    CAS 5541-67-3  (999)
5-Methyl-8-hydroxyquinoline;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
UO2++      gl  diox/w 20°C  50%  U        K1=11.25  B2=20.77  1954IRa (70068)1219
Medium: 50% dioxan, 0.3 M NaClO4
*******************************************************************************
C10H9NO                HL                    CAS 5541-68-4  (1000)
7-Methyl-8-hydroxyquinoline;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
UO2++      gl  diox/w 20°C  50%  U        K1=11.28  B2=21.06  1954IRa (70076)1220
Medium: 50% dioxan, 0.3 M NaClO4
*******************************************************************************
C10H9NO                HL                    CAS 20984-33-2  (3321)
8-Hydroxy-6-methylquinoline;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
UO2++      gl  diox/w 20°C  50%  U        K1=10.89  B2=20.15  1954IRa (70101)1221
Medium: 50% dioxan, 0.3 M NaClO4
*******************************************************************************
C10H9NO2               HL                    CAS 83010-87-2  (4717)
8-Hydroxy-2-methoxyquinoline;
-------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------------
UO2++      gl  diox/w 25°C  50%  U        K1=10.28       1971CAd (70122)1222
```

Medium: 50% dioxan, 0.1 M NaClO4

****

C10H9NO2Cl2 HL (3333)

N-2,5-Dichlorophenylacetoacetamide (Acetoacet-2,5-dichloroanilide)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	diox/w	20°C	50%	U		K1=8.66	B2=15.68	1969KSe (70147)	1223

Medium: 50% dioxan, 0.025 M NaClO4

****

C10H9NO7S2 H3L CAS 25149-18-2 (3927)

7-Amino-1-hydroxynaphthalene-3,6-disulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	NaClO4	25°C	0.10M	U		K1=6.19	B2=11.06	1968BDc (70208)	1224

****

C10H9N3O2S HL CAS 3012-52-0 (217)

2-(2'-Thiazolylazo)-4-methoxyphenol; CH3O.C6H3(OH).N:N.C3H2N2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	alc/w	20°C	30%	U		K1=8.8	1968SSd (70405)	1225

Medium: 30% EtOH, 0.1 M

****

C10H9N3O2S HL CAS 15574-54-6 (3925)

2-(2'-Thiazolylazo)-5-methoxyphenol; CH3O.C6H3(OH).N:N.C3H2N2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	alc/w	20°C	30%	U		K1=8.1	1968SSd (70408)	1226

Medium: 30% EtOH, 0.1 M

****

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
UO2++	gl	diox/w	20°C	50%	U		K1=9.69	B2=17.54	1969KSe (70470)	1227

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
UO2++	gl	diox/w	20°C	50%	U		K1=9.78	B2=17.80	1969KSe (70478)	1228

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
UO2++	gl	diox/w	20°C	50%	U		K1=8.97 B2=16.25	1969KSe (70493)	1229

Medium: 50% dioxan, 0.025 M NaClO4

****

C10H10N2O HL CAS 37920-81-3 (3323)

8-Hydroxy-2,4-dimethylquinazoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	diox/w	20°C	50%	U		K1=8.77 B2=16.10	1954IRa (70540)	1230

Medium: 50% dioxan, 0.3 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
UO2++	gl	diox/w	20°C	50%	U		K1=8.99 B2=16.50	1969KSe (70571)	1231

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
UO2++	gl	diox/w	20°C	50%	U		K1=9.39 B2=17.05	1969KSe (70579)	1232

Medium: 50% dioxan, 0.025 M NaClO4

****

C10H10N4O2S HL Sulfadiazine CAS 68-35-9 (1885)

4-Amino-N-(2-pyrimidinyl)benzenesulfonamide; C4H3N2NHSO2C6H4NH2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	alc/w	25°C	50%	C		K1=5.88 B2=11.48 K(UO2(nta)+L)=10.71	1993EEa (70620)	1233

Medium: 50% v/v EtOH/H2O, 0.10 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
UO2++	gl	diox/w	30°C	75%	U		K1=10.67 B2=20.89	1977AHb (70779)	1234
UO2++	dis	NaClO4	20°C	0.10M	U		K1=7.2 K(UO2+L+OH)=15.9 K(UO2+L+2OH)=24.1	1960STb (70780)	1235

```
--------------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  75%  U        K1=12.15  B2=23.27  1955HOa (70781)1236
********************************************************************************
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
--------------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  75%  U        K1=10.97  B2=21.20  1955HOa (70801)1237
********************************************************************************
C10H10O6             H2L                       CAS 5411-14-3  (2394)
1,2-Phenylenedioxodiethanoic acid; C6H4(O.CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      dis NaClO4 25°C 0.10M C   H    K1=3.01        1990RCa (70863)1238
                                         B((UO2)HL)=5.22
                                         K(UO2+HL)=1.75
DH(K1)=16.8, DH(MHL)=10.4 kJ mol-1. DS(K1)=114, DS(MHL)=68 J K-1 mol-1
********************************************************************************
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
--------------------------------------------------------------------------------
UO2++      gl  diox/w 20°C  50%  U        K1=9.94   B2=18.02  1969KSe (70915)1239
Medium: 50% dioxan, 0.025 M NaClO4
********************************************************************************
C10H11N5O              L                         (2721)
4-(4'-Methylphenylazo)-3-amino-pyrazolin-5-one;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      sp  alc/w  20°C 100%  U   H    K1=5.94   B2=8.8    1983EAa (71087)1240
********************************************************************************
C10H11N5O2             L                         (2722)
4-(4'-Methoxyphenylazo)-3-amino-pyrazolin-5-one;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      sp  alc/w  20°C 100%  U   H    K1=6.60   B2=9.81   1983EAa (71098)1241
********************************************************************************
C10H12N2O3S            HL                      CAS 93100-65-3  (6199)
2-(2-Pyrrolideneamino)benzene sulfonic acid; C4H7N:N.C6H4.HSO3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.10M U T H    K1=17.65       1987RDb (71211)1242
35 C:K=18.32, 45 C:18.78.  DH=102.52 kJ/mol-1, DS=670 J K-1 mol-1
********************************************************************************
```

```
C10H12N2O4             HL                        (6004)
N-Benzyloxycarbonylglycyl hydroxamic acid; C6H5.CH2.O.CO.NH.CH2.CO.NHOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U        K1=7.6    B2=14.2   1987CSb (71306)1243
*************************************************************************
C10H12O2               HL                      CAS 1946-74-3  (202)
3-Isopropyltropolone;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      sp  alc/w    ?   50%  U        K1=9.62   B2=16.54  1965DSb (71610)1244
Medium: 50% EtOH, 0.5 M KNO3. By glass electrode: K2=6.93
-------------------------------------------------------------------------
UO2++      dis NaClO4 25°C 0.10M U        K1=9.5    B2=18.00  1962DYa (71611)1245
*************************************************************************
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
-------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  75%  U        K1=10.78  B2=20.46  1961MAe (71703)1246
*************************************************************************
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
-------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  75%  U        K1=10.30  B2=19.47  1961MAe (71709)1247
*************************************************************************
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
-------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  75%  U        K1=10.21  B2=19.31  1961MAe (71753)1248
*************************************************************************
C10H13N5O4              L    Adenosine      CAS 58-61-7  (2154)
Adenosine, Adenine-9-beta-D-ribofuranoside;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      gl  KNO3   35°C 0.10M U    M   K1=2.9         1982RKa (71954)1249
                                          K(UO2(EDTA)+L)=1.08
*************************************************************************
C10H13N5O5             HL    Guanosine        CAS 118-00-3  (1402)
2-Aminopurin-6-one-9-riboside;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
```

```
--------------------------------------------------------------------------------
UO2++      gl  KNO3   35°C 0.10M U    M                  1997RVa (72021)1250
                                      K(UO2+HL)=3.10
                                      K(UO2+HL+HA)=10.31
                                      K(UO2+HL+HC)=12.44
H2A is histidine, H2C is cysteine.
--------------------------------------------------------------------------------
UO2++      gl  KNO3   35°C 0.10M U    M   K1=3.1         1982RKa (72022)1251
                                      K(UO2(EDTA)+L)=2.88
                                      K(UO2(EDTA)L+H)=6.38
--------------------------------------------------------------------------------
UO2++      gl  NaNO3  20°C  1.0M U                       1965FBa (72023)1252
                                      K(UO2+HL)=0.7
********************************************************************************
C10H16N2O8            H4L    EDDS             CAS 52759-67-8  (1100)
1,2-Diaminoethane-N,N'-di-1,4-butanedioic acid; (CH2.NH.CH(COOH)CH2.COOH)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  KNO3   30°C 0.10M U        K1=10.6        1971TSf (73195)1253
********************************************************************************
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
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.20M U        K1=15.37       1986SLb (74274)1254
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C  3.0M C        K1=15.65       1984BLb (74275)1255
                                      B((UO2)HL)=18.59
                                      B((UO2)2L)=20.24
--------------------------------------------------------------------------------
UO2++      gl  oth/un 25°C 0.10M U   H    K1=7.40        1983LGa (74276)1256
--------------------------------------------------------------------------------
UO2++      EMF KNO3   25°C 0.10M C                       1982OLa (74277)1257
                                      K(2UO2+OH+L)=26.2
                                      K(2UO2+2OH+L)=34.4
                                      K(2UO2+HL)=11.4
                                      K(2UO2+L)=17.8
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U                       1970FSa (74278)1258
                                      K(UO2+HL)=7.40
                                      K(UO2(OH)HL+H)=5.62
                                      K(2UO2(OH)HL)=3.27
                                      K(2UO2+L)=17.87
K(2UO2HL+2H2O=(UO2)2(OH)2H2L2+2H)=-7.97
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U  I                    1968FSa (74279)1259
                                      K(UO2+HL)=7.40
                                      K(2UO2+L)=17.87
```

I=1.0, K(UO2+HL)=7.35, K(2UO2+L)=17.77

UO2++ gl KNO3 25°C 1.0M U 1968FSa (74280)1260
K(UO2(OH)L+H)=6.30
K(UO2(OH)HL+H)=5.62
K(2UO2(OH)L+2H)=15.87
K((UO2)2(OH)2H2L2+2H)=7.97
polymeric species are also formed

UO2++ sp NaClO4 25°C 0.15M U M 1964BKb (74281)1261
K(UO2+HL)=7.8
K(2UO2+L)=17.8
K(UO2(OH)LH+H)=5.6
K((UO2OH)2L+2H)=11.1
K(2UO2LH+Ca=(UO2)2L+2H+CaL)=-8.2

UO2++ sp R4N.X 24°C 0.10M U K1=10.4 1960KKa (74282)1262
K(2UO2+L)=15.2
Medium: NH4Cl

UO2++ dis NaClO4 ? 0.10M U T 1960STa (74283)1263
K(UO2+HL)=7.32

UO2++ sol oth/un 25°C ? U 1959KSa (74284)1264
K(UO2+HL)=4.13
Ks(UO2H2L)=-5.64

****

C10H17N3O6S H3L Glutathione CAS 70-18-8 (333)
Glutamyl-cysteinyl-glycine;

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

---

UO2++ gl NaClO4 25°C 1.0M U H 1992BRc (75148)1265
K(UO2+H2L)=2.24
DH(UO2+H2L)=12.6 kJ mol-1, DS(UO2+H2L)=85 J K-1 mol-1

****

C10H18N2O7 H3L HEDTA CAS 150-39-0 (392)
N-(Hydroxyethyl)diaminoethane-N,N',N'-triethanoic acid;

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

---

UO2++ vlt NaClO4 30°C 0.50M U B2=9.2 1969LLa (75529)1266
K(UO2+2HL)=6.4
K(UO2+2H2L)=5.57

UO2++ sp NaClO4 25°C 0.20M U 1967BRa (75530)1267
K(UO2+HL)=6.33
K(2UO2+L)=16.70
K(UO2(H2O)HL=UO2(OH)HL+H)=5.33
K((UO2)2(H2O)2L=(UO2)2(OH)2L+2H)=9.93

****

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
UO2++	gl	diox/w	20°C	50%	U		K1=12.31 B2=23.30	1969KSe	(75628)1268

Medium: 50% dioxan, 0.025 M NaClO4

****

C10H20N2O4 H2L CAS 5578-84-7 (5914)
N,N-Dihydroxydecanediamide; HN(OH).CO.(CH2)8.CO.NH(OH)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	NaNO3	25°C	0.10M	C		K1=13.28	1989EHa	(75804)1269
							B((UO2)HL)=16.92		

****

C10H20O2 HL Capric acid CAS 334-48-5 (2542)
Decanoic acid; CH3.(CH2)8.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	dis	non-aq	25°C	100%	U			1973NHa	(75907)1270
							K(UO2L2(HL)2+(HL)2)=-0.17		

Medium: benzene

****

C10H20O5 L 15-Crown-5 CAS 33100-27-5 (576)
1,4,7,10,13-Pentaoxacyclopentadecane; cyclo(-(O.CH2.CH2)5-)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	R4N.X	25°C	0.10M	U		K1=0.7 B2=3.3	1985BFa	(76145)1271

Measured in competition with Na+. K1=0.5, B2=3.8 in competition with Pb++

****

C10H22N2O3 L Cryptand 2,1 CAS 31249-95-3 (835)
4,7,13-Trioxa-1,10-diazacyclopentadecane (Trioxa(2,1)cryptand);

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	non-aq	25°C	100%	U		K1=4.96 B2=8.56	1989LMb	(76344)1272

Medium: propylene carbonate, 0.1 M Et4NClO4

****

C10H22O5 L Tetraglyme CAS 143-24-8 (121)
2,5,8,11,14-Pentaoxapentadecane; (CH3.O.CH2.CH2.O.CH2.CH2.)2O

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	non-aq	25°C	100%	U	I	K1=2.99	1989LMb	(76478)1273

Medium: 0.1 M Et4NClO4 in propylene carbonate
In acetonitrile, K1=1.47

****
C11H8O2 HL CAS 708-06-5 (1889)
2-Hydroxy-1-naphthaldehyde;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	alc/w	27°C	50%	U	M	K1=7.91 B((UO2)L(Gly))=14.05 B((UO2)L(Phe))=13.78 B((UO2)L(Ala))=13.27 B((UO2)L(Val))=12.89 B(ML(Leu))=13.93, B(ML(Ser))=13.31, B(ML(Thr))=13.08, B(ML(His))=16.96	1985RSc (76967)	1274
UO2++	gl	diox/w	25°C	50%	U		K1=7.00	1974LSa (76968)	1275

****
C11H8O3 H2L CAS 86-48-6 (1129)
1-Hydroxy-2-naphthoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	oth/un	30°C	0.10M	U	T	K1=3.42 K1(20 C)=3.45, K1(40 C)=3.39, K1(50 C)=3.35, K1(60 C)=3.33. I=0: K1=3.88	1971PSb (77020)	1276
UO2++	sp	oth/un	30°C	?	U		K(UO2+HL=UO2L+H)=1.62(?)	1959TPa (77021)	1277

****
C11H8O3 H2L CAS 2083-08-1 (1131)
2-Hydroxy-1-naphthoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	NaClO4	30°C	0.10M	U	T	K(UO2+HL)=3.52 K(20 C)=3.59, K(40 C)=3.47, K(50 C)=3.41. I=0: K(UO2+HL)=4.19	1972PSa (77066)	1278

****
C11H8O3 HL CAS 483-35-6 (3347)
2-Hydroxy-3-methyl-1,4-naphthoquinone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	diox/w	30°C	75%	U		K1=8.39 B2=15.59	1960KFc (77080)	1279

****
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
UO2++	sp	oth/un	25°C	?	U		K(UO2+HL=UO2L+H)=3.45	1965DEa (77134)	1280

****

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

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 35°C 50% U K1=5.90 B2=10.51 1971MAa (77188)1281
Medium: 50% dioxan, 0.01 M NaClO4
****
C11H8O4 HL CAS 6724-42-1 (6183)
8-Formyl-7-hydroxy-4-methyl-2H-1-benzopyran-2-one; CHO.C9H3O(:O)(CH3)(OH)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl alc/w 35°C 70% U K1=6.86 B2=12.40 1988KRc (77208)1282
****
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
---
UO2++ gl NaClO4 25°C 0.50M C K1=11.77 B2=20.78 1988LKa (77236)1283
B((UO2)H-1L2)=10.86
K1 measured by spectrophotometry
****
C11H8O6S H3L CAS 6407-91-6 (1994)
1-Hydroxy-7-sulfo-2-naphthoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl NaClO4 25°C 0.50M C K1=13.35 B2=21.42 1988LKa (77240)1284
B((UO2)H-1L)=5.92
B((UO2)H-1L2)=11.69
K1 measured by spectrophotometry
****
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
---
UO2++ gl NaClO4 25°C 0.50M C K1=10.94 B2=18.83 1988LKa (77289)1285
B3=22.23
****
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
---
UO2++ gl NaClO4 25°C 0.50M C K1=9.809 B2=17.398 1978LKb (77296)1286
****
C11H9NO2 H2L CAS 7470-09-9 (8481)

2-Hydroxy-1-naphthaldoxime;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	diox/w	25°C	75%	U		K1=11.30	B2=20.91	1978MCd (77319)	1287

Medium: 75% v/v dioxane/H2O, 0.10 M NaClO4.

****

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
UO2++	gl	diox/w	25°C	50%	M T H		K1=9.88	B2=18.33	1977ABb (77352)	1288

****

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
UO2++	gl	NaClO4	30°C	0.10M	U		K1=8.14	B2=16.05	1969DSb (77394)	1289

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	diox/w	35°C	50%	U			1971MAa (77431)	1290
							K(UO2+HL)=5.83		
							K(UO2+2HL)=10.40		

Medium: 50% dioxan, 0.01 M NaClO4

****

C11H9N3O HL CAS 10335-29-2 (3937)
2-(2'-Pyridylazo)phenol; C5H4N.N:N.C6H4.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	alc/w	20°C	50%	U		K1=10.7	1967ANa (77462)	1291

Medium: 50% MeOH, 0.1 M NaClO4

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	oth/un	20°C	0.10M	U		K1=11.9	1967SId (77595)	1292
							K(UO2+HL)=12.9		
UO2++	gl	diox/w	25°C	50%	U	I	K1=16.2	B2=25.80 1962GNa (77596)	1293

Medium: 50% dioxan, 0.1 M. In 0% dioxan: K1=12.5, K2=8.4

****

C11H9N3O5S HL (6249)
1,2-Naphthoquinone-4-sulfonic acid 2-semicarbazone; C10H5(:O)(HSO3):N.NH.CO.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl NaClO4 28°C 0.10M U T H K1=6.92 B2=12.94 1980MGd (77643)1294
****
C11H11NO6 H3L CAS 1147-65-5 (425)
N-(2'-Carboxyphenyl)iminodiethanoic acid; HOOC.C6H4.N(CH2.COOH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl KNO3 25°C 0.10M U K1=9.71 B2=17.99 1982NBa (77839)1295
****
C11H11N2O2Br HL (9228)
3-[4-Bromophenylazo]penta-2,4-dione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl alc/w 25°C 0.1M U K1=7.29 2004GMc (77878)1296
Medium: 0.1 mol/L KCl in 3:7 EtOH/H2O mixture
****
C11H11N2O2I HL (9227)
3-[4-Iodophenylazo]penta-2,4-dione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl alc/w 25°C 0.1M U K1=7.26 2004GMc (77901)1297
Medium: 0.1 mol/L KCl in 3:7 EtOH/H2O mixture
****
C11H11N3OS L (7162)
2-(2'-Thiazolylazo)-4,6-dimethylphenol; C3H2NS.N:N.C6H2(CH3)2OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp alc/w rt 40% U K1=9.04 B2=17.37 1988SSh (77903)1298
Medium: 40% v/v EtOH/H2O, 0.25 M NaClO4
****
C11H11N3O2S HL Sulfapyridine CAS 144-83-2 (8356)
4-Amino-N-2-pyridinyl-benzenesulfonamide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl alc/w 25°C 50% C M K1=9.59 B2=15.71 1993EEa (77935)1299
K(UO2(nta)+L)=6.55
Medium: 50% v/v EtOH/H2O, 0.10 M NaClO4.
****
C11H11N3O4 HL (9230)
3-[4-Nitrophenylazo]penta-2,4-dione;

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      gl  alc/w  25°C  0.1M U        K1=7.63        2004GMc (77961)1300
Medium: 0.1 mol/L KCl in 3:7 EtOH/H2O mixture
*************************************************************************
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
-------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  50%  U        K1=11.67  B2=22.30  1961MJa (77982)1301
*************************************************************************
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
-------------------------------------------------------------------------
UO2++      gl  diox/w 20°C  50%  U        K1=9.32   B2=17.07  1969KSe (77987)1302
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
-------------------------------------------------------------------------
UO2++      gl  diox/w 20°C  50%  U        K1=9.26   B2=16.89  1969KSf (77992)1303
Medium: 50% dioxan, 0.025 M NaClO4
*************************************************************************
C11H12N2O2             HL                     CAS 103314-23-4  (6182)
2-(N-2-Pyrrolidimino)benzoic acid; C4H7N:N.C6H4.COOH
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.10M U TIH    B2=23.55       1988GRb (78024)1304
35 C:B2=23.63, 45 C:23.72. DH(B2)=15.4 kJ mol-1, DS=502.9 J K-1 mol-1
*************************************************************************
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
-------------------------------------------------------------------------
UO2++      gl  NaClO4 20°C 0.10M U T H    K1=7.48   B2=14.36  1981SSh (78237)1305
Also data for 30 and 40C.  DH(B2)=-142 kJ mol-1, DS(B2)=-212 J K-1 mol-1
-------------------------------------------------------------------------
UO2++      gl  NaClO4 30°C 0.10M U                       1980RRa (78238)1306
                                        K(UO2+HL)=1.83
*************************************************************************
C11H12N2O2             HL                       (9226)
3-[Diphenylazo]penta-2,4-dione;
-------------------------------------------------------------------------
```

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      gl  alc/w  25°C  0.1M U        K1=8.78        2004GMc (78252)1307
Medium: 0.1 mol/L KCl in 3:7 EtOH/H2O mixture
*************************************************************************
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
-------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  50%  U        K1=10.56  B2=21.08  1961MJa (78278)1308
*************************************************************************
C11H12N2O5S            HL                    CAS 56475-09-3  (8410)
3-(4'-Sulfophenylhydrazo)-pentane-2,4-dione;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      gl  KCl    25°C 0.10M U T      K1=8.09        2005ACa (78330)1309
For 35 C K1=7.87; for 45 C K1=7.62
*************************************************************************
C11H12N2S               L                    CAS 6649-23-6  (699)
2,3,5,6-Tetrahydro-6-phenylimidazo(2,1-b)thiazole;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      gl  KCl    25°C 0.10M U        K1=4.81   B2=10.69  1982ZZa (78343)1310
*************************************************************************
C11H12N4O2S            HL    Sulfamerazine    CAS 127-79-7  (8431)
4-Amino-N-(4-methyl-2-pyrimidinyl)benzenesulfonamide;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      gl  alc/w  25°C  50%  C        K1=6.70   B2=11.64  1993EEa (78361)1311
                                        K(UO2(nta)+L)=11.22
Medium: 50% v/v EtOH/H2O, 0.10 M NaClO4.
*************************************************************************
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
-------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  50%  U        K1=10.97  B2=20.97  1961MJa (78441)1312
*************************************************************************
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
-------------------------------------------------------------------------
UO2++      gl  diox/w 20°C  50%  U        K1=10.24  B2=18.58  1969KSe (78449)1313
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
---
UO2++ gl diox/w 20°C 50% U K1=9.35 B2=17.03 1969KSe (78466)1314
Medium: 50% dioxan, 0.025 M NaClO4
****
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
---
UO2++ gl diox/w 20°C 50% U K1=10.14 B2=18.37 1969KSe (78474)1315
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
---
UO2++ gl diox/w 20°C 50% U K1=10.0 B2=18.18 1969KSe (78484)1316
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
---
UO2++ gl diox/w 20°C 50% U K1=10.28 B2=18.70 1969KSe (78492)1317
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
---
UO2++ gl diox/w 20°C 50% U K1=9.70 B2=17.76 1969KSe (78522)1318
Medium: 50% dioxan, 0.025 M NaClO4
****
C11H16N2O10 H5L CEDTA CAS 62394-58-5 (1080)
1-Carboxy-1,2-diaminoethane-N,N,N',N'-tetraethanoic acid;
(HOOCCH2)2NCH(COOH)CH2N(CH2COOH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl KCl 25°C 0.10M U 1987HGa (79113)1319
B((UO2)H3L)=23.04
B((UO2)H2L)=20.11

B((UO2)HL)=17.06
B((UO2)2L2)=26.27
B((UO2)2HL)=19.99; B((UO2)2L)=16.53; B((UO2)4H-2L2)=26.32; B((UO2)4H-4L2)=15.31
****
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
UO2++	gl	KNO3	25°C	0.10M	C	I		1984GMb	(79474)1320
							B(UO2HL)=18.80		
							B((UO2)2L)=18.66		
							B((UO2)2H-1L)=14.05		
							B((UO2)2L2)=30.2		

B((UO2)4H-4L2)=20.64. For I=1.0 M KNO3: B(UO2HL)=18.12, B((UO2)2L)=17.3, B((UO2)2H-1L)=12.44, B((UO2)2L2)=28.44, B((UO2)4H-4L2)=17.96.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	KNO3	25°C	0.10M	C	I		1984GMb	(79475)1321
							*K((UO2)2L)=-4.61		

K(2UO2HL=(UO2(OH)H-1L)2+2H)=-7.39; K'(2(UO2)2L=(UO2L)2(OH)4+4H)=-16.75
In 1.0 M KNO3: K(2UO2HL=(UO2(OH)H-1L)2+2H)=-7.83; *K((UO2)2L)=-4.89;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	KNO3	25°C	0.10M	U			1968FSa	(79476)1322
							K(UO2+HL)=8.94		

****
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
UO2++	gl	diox/w	30°C	75%	U		K1=12.11 B2=23.92	1977AHb	(79753)1323

****
C12H8N2 L Phenanthroline CAS 66-71-7 (144)
1,10-Phenanthroline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	NaClO4	30°C	0.10M	M	M	K1=3.90	1982RSb	(80527)1324
							K(UO2L+OH)=9.93		
							K(UO2(OH)L+A)=10.15		
							K(UO2+OH+A+L)=23.98		
							K(UO2(OH)L+B)=3.24		

K(UO2+OH+B+L)=17.07. H2A=N,N'-1,2-ethanediylbis(2-mercaptoactamide), H2B=N,N'-1,2-ethanediylbis(3-mercaptopropanamide).
****
C12H9NO3 HL CAS 63098-85-1 (6279)
2-(N-2'-Furfuralideneimino)benzoic acid; C4H3O.CH:N.C6H4.COOH

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

---
UO2++ gl NaClO4 25°C 0.10M U TI K1=4.32 B2=7.58 1978SKg (80582)1325
****
C12H10N2O HL CAS 1823-47-8 (3969)
2-Salicylideneaminopyridine; (2-OH).C6H4.CH:N.C5H4N

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp alc/w 20°C 100% U H K1=5.53 1984EAb (80678)1326
Data also for related hydroxybenzilidene-aminopyridines, -aminopyrimidines,
-amino-1,2,4-triazine.

UO2++ gl diox/w 25°C 50% U K1=8.1 1962GNb (80679)1327
****
C12H10N6O4S H2L CAS 77327-19-6 (8343)
2-[4-Amino-3-(1,2,4-triazolylazo)]napthol-4-sulphonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl NaClO4 30°C 0.10M U T K1=5.37 B2=10.16 1981GMi (80789)1328
Also data for 40-50 C.
****
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
---
UO2++ gl diox/w 25°C 50% M T H K1=9.94 B2=18.43 1977ABb (80836)1329
50% v/v dioxan -water; Data also for Pd(II), Cu(II), Zn, Ni, Co, Mn
also values of K at 35 C and DH values
****
C12H11N3OS HL (6787)
2-Hydroxy-1-naphthaldehyde thiosemicarbazone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 20°C 75% U K1=10.09 B2=18.47 1992SSc (80897)1330
Medium: 75% v/v dioxan/H2O and other mixtures, 0.1 M NaClO4
****
C12H11N3O2 HL CAS 50536-09-5 (6323)
2-Hydroxy-1-naphthaldehyde-semicarbazone; HO.C10H6.CH:N.NH.CO.NH2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 20°C 75% U K1=9.97 B2=19.33 1992SSc (80926)1331
Medium: 75% v/v dioxan/H2O and other mixtures, 0.1 M NaClO4
****
C12H12N2O HL CAS 70301-52-9 (1940)
2-(Hydroxyphenyliminomethyl)pyridine; C5H4N.CH2.NH.C6H4.OH

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      gl  diox/w 25°C  50%  U        K1=12.4   B2=21.5   1962GNb (81031)1332
*************************************************************************
C12H12N2O2             HL                      CAS 4173-74-4  (4915)
1-Phenyl-3-methyl-4-acetylpyrazol-5-one;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      dis oth/un 25°C 0.10M U  I     B2=10.90       1973BKc (81044)1333
I=1.0: B2=11.13
*************************************************************************
C12H12N4O2             HL    AHMP              CAS 62201-49-4  (7697)
4-(4-Acetophenyl)hydrazono-3-methyl-2-pyrazolin-5-one;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      gl  alc/w  25°C  50%  U T H    K1=6.99   B2=13.67  1999EEa (81130)1334
Medium: 50%(v/v) EtOH/H2O, 0.10 M KCl. DH(K1)=-36.8 kJ mol-1,
DS(K1)=10.5 J K-1 mol-1; DH(K2)=-34.3 kJ mol-1, DS(K2)=21.5 J K-1 mol-1.
*************************************************************************
C12H12O3               H2L                     CAS 39113-56-9  (794)
1-Phenylhexane-1,3,5-trione; C6H5.CO.CH2.CO.CH2.CO.CH3
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      sp  alc/w  25°C 70 %  U                        1991HKe (81157)1335
                                        B((UO2)HL)=8.89
Medium: 70% v/v MeOH/H2O, 0.5 M NaClO4
-------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  75%  U        K1=10.64       1960KFc (81158)1336
*************************************************************************
C12H13NO3              H2L                       (5384)
Acetylacetone-anthranilic acid Schiff base
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      gl  diox/w 20°C  50%  U        K1=11.02       1973MGa (81218)1337
Medium: 50% v/v dioxan, 0.1 M NaClO4
-------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  50%  U        K1=11.02       1971MGa (81219)1338
Medium: 50% v/v dioxan, 0.1 M NaClO4
*************************************************************************
C12H14N4O2S             L    Sulfadimidine    CAS 57-68-1  (6167)
2-(4-Aminobenzolsulfamido)-4,6-dimethylpyrimidine;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      gl  alc/w  25°C  50%  C        K1=7.15   B2=12.70  1999GAa (81374)1339
Medium: 50% EtOH/H2O, 0.10 M NaNO3.
```

****
C12H14O3 HL CAS 543-05-8 (4900)
Ethyl 2-phenylacetoacetate; CH3.CO.CH(C6H5).CO.O.CH2.CH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 30°C 75% U K1=12.90 1973AAa (81402)1340
****
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
---
UO2++ gl diox/w 20°C 50% U T K1=9.84 B2=17.98 1969KSe (81445)1341
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
---
UO2++ gl diox/w 20°C 50% U K1=9.83 B2=17.93 1969KSe (81450)1342
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
---
UO2++ gl diox/w 20°C 50% U K1=10.05 B2=18.36 1969KSe (81470)1343
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
---
UO2++ gl diox/w 20°C 50% U K1=9.47 B2=17.28 1969KSe (81475)1344
Medium: 50% dioxan, 0.025 M NaClO4
****
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
---
UO2++ gl diox/w 30°C 75% U K1=10.42 B2=19.68 1961MAe (81711)1345
****
C12H18N2O10 H5L CAS 105147-09-9 (1081)
1-Carboxy-1,3-diaminopropane-N,N,N',N'-tetraethanoic acid;
(HOOCCH2)2NCH(COOH)(CH2)2N(CH2COOH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl KNO3 25°C 0.10M U K1=13.64 1987HGa (81911)1346
B((UO2)H3L)=25.00
B((UO2)H2L)=22.25
B((UO2)HL)=19.36
B((UO2)H-1L)=7.33
B((UO2)2L2)=29.62; B((UO2)2HL)=22.16; B((UO2)2L)=18.61; B((UO2)4H-2L2)=30.12
B((UO2)4H-4L2)=19.21
****
C12H20N2O8 H4L CAS 40623-42-5 (1101)
1,2-Diaminoethane-N,N'-di(2-pentane-1,5-dioic acid); (CH2NHCH(COOH)CH2CH2COOH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl KNO3 30°C 0.10M U K1=12.55 1971TSf (82107)1347
****
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
---
UO2++ gl KNO3 25°C 0.10M C I 1984GMb (82239)1348
B(UO2HL)=19.61
B((UO2)2L)=19.06
B((UO2)2H-1L)=13.83
B((UO2)2L2)=31.04
B((UO2)4H-4L2)=19.76. For I=1.0 M KNO3: B(UO2HL)=19.21, B((UO2)2L)=18.38,
B((UO2)2H-1L)=13.44, B((UO2)2L2)=30.33, B((UO2)4H-4L2)=20.15.

UO2++ gl KNO3 25°C 0.10M C I 1984GMb (82240)1349
*K((UO2)2L)=-5.26
K(2UO2HL=(UO2(OH)H-1L)2+2H)=-8.18; K'(2(UO2)2L=(UO2L)2(OH)4+4H)=-18.35
In 1.0 M KNO3: K(2UO2HL=(UO2(OH)H-1L)2+2H)=-8.22; *K((UO2)2L)=-4.95;
****
C12H24O6 L 18-Crown-6 CAS 17455-13-9 (577)
1,4,7,10,13,16-Hexaoxacyclooctadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ nmr non-aq 27°C 100% C I K1=1.51 2001KZa (83672)1350
Method: 7Li nmr; competitive binding study. Medium: nitromethane.
In acetonitrile, K1=1.06

UO2++ sp non-aq 25°C 100% U I K1=5.29 1989LMb (83673)1351
Medium: 0.1 M Et4NClO4 in propylene carbonate
In acetonitrile, K1=3.80

UO2++ gl R4N.X 25°C 0.10M U K1=2.1 B2=3.9 1985BFa (83674)1352

Measured in competition with Na+. K1=2.0, B2=3.7 in competition with Pb++

UO2++ sp non-aq 25°C 100% U K1=5.29 1985BFa (83675)1353
Medium: propylene carbonate. In H2O, by potentiometry: K1=2.0, B2=3.7

UO2++ ISE non-aq 25°C 100% C K1=5.31 1984FLa (83676)1354
In propylenecarbonate; electrolyte Et4NClO4
****
C12H26N2O4 L Cryptand 2,2 CAS 23978-55-4 (925)
4,7,13,16-Tetraoxa-1,10-diazacyclooctadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp non-aq 25°C 100% U K1=7.45 B2=12.40 1989LMb (83913)1355
Medium: propylene carbonate, 0.1 M Et4NClO4

UO2++ sp non-aq 25°C 100% U K1=7.45 B2=12.40 1985BFa (83914)1356
B((UO2)2L)=14.49
Medium: propylene carbonate, 0.01 M Et4NClO4

UO2++ gl R4N.X 25°C 0.10M C K1=10.87 1983SEa (83915)1357
Medium: 0.10 M Me4NCl.
****
C12H27O4P L CAS 126-73-8 (2432)
Tri-n-butyl phosphate; (C4H9O)3PO

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp non-aq 20°C 100% U 1983KBc (84123)1358
K(UO2Cl2+L)=1.99
K(UO2Cl2+2L)=3.68
Medium: acetone
****
C13H8N2O3Cl2 HL (6202)
2-Carboxy-2'-hydroxy-3',5'-dichloroazobenzene; HOOC.C6H4.N:N.C6H2(OH)Cl2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 25°C 70% U I K1=14.98 B2=26.89 1987KBc (84473)1359
****
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
---
UO2++ sp alc/w 25°C 50% U K1=9.97 1968GDb (84499)1360
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
UO2++	gl	NaClO4	30°C	0.10M	U		K1=3.00		1989SHa	(84520)1361

****

C13H9N3O4S2 H2L CAS 2536-61-0 (4031)
1-(1',3'-Thiazol-2'-ylazo)-2-hydroxynaphthalene-6-sulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	alc/w	25°C	50%	U	I	K1=8.7	B2=15.9	1967NPb	(84645)1362

Medium: 50% MeOH, 0.1 M NaClO4. In 0% MeOH: K1=8.2, K2=5.5

****

C13H10NOBr HL CAS 886-34-0 (2729)
Salicylidene-4-bromo aniline; HO.C6H4.CH:N.C6H4.Br

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	sp	alc/w	20°C	100%	U	H	K1=5.76	B2=10.9	1983EAb	(84678)1363

Data also for salicylidene-3-anisidine

****

C13H10NO2Br H2L (1385)
2'-Hydroxy-5'-bromobenzophenone oxime; Br(HO)C6H3.C(:NOH)C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	diox/w	30°C	50%	U		K1=8.06	B2=15.07	1982UVa	(84692)1364

****

C13H10N2O2 HL CAS 56288-80-1 (4980)
2-Hydroxy-4-(phenylazo)benzaldehyde; C6H5.N:N.C6H3(OH).CHO

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	sp	alc/w	30°C	50%	U		B2=7.40		1972DTb	(84841)1365

****

C13H10N2O4 H2L CAS 15766-65-6 (1384)
2-Hydroxy-5-nitrobenzophenone oxime; HO(NO2)C6H3.C(:NOH)C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	diox/w	30°C	50%	U		K1=6.75	B2=12.82	1982UVa	(84873)1366

****

C13H10N2O4 HL CAS 13245-57-3 (4983)
N-4-Nitrobenzoyl-N-phenylhydroxylamine; O2N.C6H4.CO.N(C6H5)OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	EMF	mixed	30°C	50%	U		K1=7.88	B2=13.92	1970GSf	(84883)1367

Medium: 50% v/v acetone/H2O, 0.5 M NaClO4

****
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
---
UO2++ gl diox/w 25°C 50% U T K1=10.20 B2=18.65 1977VKa (84901)1368
At 35 C: K1=10.00, K2=8.25

UO2++ EMF mixed 30°C 50% U K1=7.12 B2=12.84 1970GSf (84902)1369
Medium: 50% v/v acetone/H2O, 0.5 M NaClO4
****
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
---
UO2++ gl diox/w 25°C 50% U T K1=10.38 B2=19.00 1977VKa (84911)1370
At 35 C: K1=10.13, K2=8.45

UO2++ EMF mixed 30°C 50% U K1=7.90 B2=14.00 1970GSf (84912)1371
Medium: 50% v/v acetone/H2O, 0.5 M NaClO4
****
C13H10N2O5 H3L (1389)
2,4-Dihydroxy-5-nitrobenzophenone oxime; (HO)2(NO2)C6H2.C(:NOH)C6H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 30°C 50% U K1=9.70 B2=18.55 1982UVa (84919)1372
****
C13H10N2O5S H2L CAS 98789-35-6 (5012)
4-Hydroxy-3-formylazobenzene-4'-sulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ EMF alc/w 25°C 42% U 1972DSc (84924)1373
K(UO2+HL=UO2L+H)=4.83
K(UO2L+HL=UO2L2+H)=4.19
Medium: 42% EtOH, 0.2 M NaClO4

UO2++ sp oth/un 30°C aq U B2=7.13 1972DTb (84925)1374
****
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
---
UO2++ gl oth/un 20°C 0.10M M T H K1=8.2 1978MBe (84943)1375
Medium: 0.10 M KClO4. Data for 44 C. DH and DS values reported.
****

C13H11NO2 H2L (1383)
2-Hydroxybenzophenone oxime; HO.C6H4.C(:NOH)C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	diox/w	30°C	50%	U		K1=9.17	B2=17.10	1982UVa (85077)	1376

****
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
UO2++	gl	alc/w	25°C	50%	U		K1=11.30	B2=17.10	1977DWa (85089)	1377

****
C13H11NO2 HL CAS 91-40-7 (1276)
N-Phenyl-anthranilic acid; C6H5.NH.C6H4.COOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	diox/w	30°C	50%	U		K1=4.95		1973RSa (85100)	1378

Medium: 50% dioxan, 0.1 M NaClO4
****
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
UO2++	EMF	mixed	30°C	50%	U		K1=8.52	B2=15.04	1970GSf (85183)	1379

Medium: 50% acetone, 0.5 M NaClO4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	NaClO4	30°C	0.10M	U		K1=8.77	B2=16.98	1969DSb (85184)	1380

****
C13H11NO3 H3L CAS 3147-44-2 (1388)
2,4-Dihydroxy-benzophenone oxime; (HO)2C6H3.C(:NOH)C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	diox/w	30°C	50%	U		K1=11.04	B2=19.57	1982UVa (85195)	1381

****
C13H11NO3 HL (4987)
N-Phenylsalicylohydroxamic acid; HO.C6H4.CO.N(C6H5)OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	EMF	mixed	30°C	50%	U		K1=5.58	B2=10.00	1969GMc (85204)	1382

Medium: 50% acetone/H2O, 0.5 M NaClO4
****
C13H11N2O3F3 HL (5563)
3-(2-Acetylphenylhydrazone)-1,1,1-trifluoropentane-2,4-dione;
CF3.CO.C(CO.CH3):N.HN.C6H4.COCH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 25°C 75% U K1=10.75 B2=20.60 1990ASb (85255)1383
****
C13H11N3O2 HL (4984)
1-Isonicotinyl-2-salicylidene hydrazone; C5H4N.CO.NH.N:CH.C6H4.OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp alc/w 36°C 60% U 1970GPb (85269)1384
K(?)=4.2
Medium: 60% EtOH, 0.02 M KCl
****
C13H11N3O2 H2L CAS 62031-25-8 (1119)
4-Hydroxy-3-oximinomethylazobenzene; (HO)(HO.N:CH)C6H3.N:N.C6H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl alc/w 25°C 42% U K1=6.16 B2=11.94 1974MSb (85281)1385
****
C13H11N3O5S H3L (5019)
4-Hydroxy-3-oximinomethylazobenzene-4'-sulfonic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl alc/w 25°C 50% U K1=5.22 B2=9.84 1973DSa (85301)1386
Medium: 42% EtOH, 0.2 M NaClO4
****
C13H12N2O HL CAS 69067-12-5 (4986)
Benzanilidoxime; C6H5.C(:N.OH).NH.C6H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp diox/w 25°C 50% U K1=10.22 B2=20.05 1969MKd (85336)1387
Medium: 50% dioxan, 0.1 N NaClO4
****
C13H12N2O HL (2728)
Salicylidene phenyl hydrazone; HO.C6H4.CH:N.NH.C6H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp alc/w 20°C 100% U H K1=4.22 B2=8.76 1983EAb (85347)1388
****
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
---
UO2++ sp non-aq 25°C 100% U T HM 1976EWb (85421)1389

K((UO2)2(NO3)2(TBP)2+L)=-0.4
TBP=tributylphosphate. Medium:dichloromethane. In tetrachloromethane, K=0.48
****
C13H13NO HL CAS 24403-51-8 (3410)
1,2,3,4-Tetrahydro-9-hydroxyacridine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 20°C 50% U K1=10.10 B2=18.30 1954IRa (85492)1390
Medium: 50% dioxan, 0.3 M NaClO4
****
C13H14N2O3 HL (4940)
3-(2-Acetylphenylhydrazone)pentane-2,4-dione;(CH3.CO)2C:N.NH.C6H4(CO.CH3)

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 25°C 75% U K1=13.16 B2=25.92 1990ASb (85618)1391
****
C13H15NO2 HL (4990)
2-Butoxy-8-hydroxyquinoline; CH3.CH2.CH2.CH2.O.C9H5N.OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 25°C 50% U K1=10.39 1971CAd (85701)1392
Medium: 50% dioxan, 0.1 M NaClO4
****
C13H15NO2 HL (4991)
7-t-Butoxy-8-hydroxyquinoline; (CH3)3C.O.C9H5N.OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 25°C 50% U K1=13.4 B2=25.00 1971CAd (85703)1393
Medium: 50% dioxan, 0.1 M NaClO4
****
C13H15N3OS HL CAS 76877-50-4 (1291)
2-(4',5'-Dimethyl-2-thiazolylazo)-4,6-dimethylphenol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp alc/w rt 40% U K1=8.75 B2=19.56 1988SSh (85861)1394
Room temperature. Medium: 0.25 M NaClO4 in 40% v/v EtOH/H2O
****
C13H17NO HL (3412)
4-(2,6-Dimethylphenylimino)pentan-2-one;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 30°C 50% U K1=11.44 B2=21.18 1961MJa (85968)1395
****
C13H17N3O5 HL (6006)

N-Benzyloxycarbonyl-alanylglycyl hydroxamic acid;
C6H5.CH2.O.CO.NH.CH(CH3).CO.NH.CH2.CO.NHOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	KNO3	25°C	0.10M	U		K1=6.4	B2=12.4	1987CSb	(86016)1396

****

C13H18N2O4 L (6005)
N-Benzyloxycarbonyl-valyl hydroxamic acid; C6H5.CH2.O.CO.NH.CH(CH(CH3)2).CO.NHOH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	KNO3	25°C	0.10M	U		K1=6.7	B2=12.1	1987CSb	(86034)1397

****

C13H20N2O10 H5L CAS 88897-18-1 (1082)
1-Carboxy-1,4-diaminobutane-N,N,N',N'-tetraethanoic acid;
(HOOCCH2)2NCH(COOH)(CH2)3N(CH2COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	KNO3	25°C	0.10M	U		K1=14.14	1987HGa	(86134)1398
							B((UO2)H3L)=25.17		
							B((UO2)H2L)=22.96		
							B((UO2)HL)=19.91		
							B((UO2)H-1L)=7.73		
B((UO2)2L2)=31.34; B((UO2)2HL)=22.99; B((UO2)2L)=19.22; B((UO2)4H-2L2)=31.86									
B((UO2)4H-4L2)=20.86									

****

C14H8N3O8S2F3 HL (9231)
1-(2-Thenoyl),4-trifluoro,2-[2-hydroxy-2-sulpho-5-nitrophenylazo]butadi-1,3-one;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	KCl	25°C	0.1M	U		K1=8.10	B2=14.72	2004ACa	(86612)1399

****

C14H8O4 H2L CAS 117-10-8 (3425)
1,8-Dihydroxyanthraquinone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	diox/w	30°C	75%	U		K1=12.13	B2=23.16	1960KFc	(86676)1400

****

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
UO2++	sp	NaClO4	30°C	0.15M	U			1963SDa	(86765)1401
							K(?)=4.5		

UO2++ sp NaClO4 25°C 0.15M U K1=4.22 1960SDa (86766)1402
At 30 C: K1=4.56 (I=0.1 M)
****
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
---
UO2++ gl diox/w 30°C 75% U K1=11.76 B2=22.37 1964CMb (86790)1403
****
C14H9NO4 H2L Alizarin Maroon CAS 3963-78-8 (1052)
3-Amino-1,2-dihydroxyanthraquinone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl alc/w 25°C 0.10M U K1=6.45 B2=11.52 1986SIb (86815)1404
Medium: 40% v/v EtOH/H2O, 0.1 M NaClO4. K(UO2L+A)=4.87; K(UO2A+L)=6.72;
B((UO2)LA)=11.32, H2A=thiosalicylic acid
****
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
---
UO2++ gl NaClO4 30°C 0.10M U K1=2.97 1989SHa (86890)1405
Data also for the 2-hydroxy-3-ethyl-5-fluoro analogue for all metal.
****
C14H11NO3 H2L CAS 7316-93-5 (5047)
N-Salicylideneanthranilic acid; HO.C6H4.CH:N.C6H4.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 30°C 50% U K1=11.15 1971MGa (86952)1406
Medium: 50% dioxan, 0.1 M NaClO4
****
C14H11NO3 H2L CAS 67707-86-2 (8476)
Salicylideneaniline-3-carboxylic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 25°C 30% U K1=6.95 1978CPb (86958)1407
Medium: 30% v/v dioxane/H2O, 0.20 M NaClO4.
****
C14H11NO4 HL (2727)
Salicylidene-4-amino salicylic acid; HO.C6H4.CH:N.C6H3(OH).COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl alc/w 27°C 40% M K1=11.48 B2=21.72 1993MRa (86981)1408

Medium: 40% v/v EtOH/H2O, 0.10 M NaCl.

UO2++ sp alc/w 20°C 100% U H K1=4.9 1983EAb (86982)1409

****

C14H11NO5 H4L CAS 245062-92-4 (8423)

4-[(E)-[(2,4-Dihydroxyphenyl)methylene]amino-2-hydroxybenzoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	alc/w	27°C	40%	M		K1=11.38	B2=17.42	1993MRa	(86985)1410

Medium: 40% v/v EtOH/H2O, 0.10 M NaCl.

****

C14H11N5O8S2 H5L CAS 1105-53-9 (5084)

1,5-Bis(2-hydroxy-5-sulfophenyl)-3-cyanoformazan;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	NaNO3	20°C	0.10M	U		K1=20.19	1971SEa	(87021)1411

****

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
UO2++	sp	none	25°C	0.0	U		K1=11.63	1984MSc	(87225)1412

****

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
UO2++	gl	diox/w	25°C	50%	U	T	K1=10.10	B2=18.48	1977VKa	(87267)1413

At 35 C: K1=9.90, K2=8.21

****

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
UO2++	gl	diox/w	25°C	50%	U	T	K1=10.45	B2=19.15	1977VKa	(87280)1414

At 35 C: K1=10.20, K2=8.45

****

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
UO2++	gl	diox/w	25°C	50%	U	T	K1=10.70	B2=19.71	1977VKa	(87293)1415

At 35 C: K1=10.45, K2=8.75

****

C14H13NO2 H2L (1387)
2'-Hydroxy-5'-methylbenzophenone oxime; HO(CH3)C6H3.C(:NOH)C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	diox/w	30°C	50%	U		K1=9.39	B2=17.58	1982UVa (87392)	1416

****

C14H13NO2 HL N,2'-DPAHA CAS 13663-57-5 (879)
N,2'-Diphenylacetohydroxamic acid; C6H5.CH2.CO.N(C6H5).OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	alc/w	30°C	50%	U	T	K1=9.25	B2=16.70	1981RSa (87430)	1417

Medium: 50% v/v EtOH, 0.1 M KNO3

****

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
UO2++	gl	NaClO4	30°C	0.10M	U		K1=8.90	B2=17.57	1969DSb (87453)	1418

****

C14H13NO2 HL CAS 1143-74-2 (4044)
N-2-Tolylbenzohydroxamic acid; C6H5.CO.N(C6H4.CH3).OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	NaClO4	30°C	0.10M	U		K1=8.64	B2=17.07	1969DSb (87483)	1419

****

C14H13NO2 HL CAS 17120-16-0 (5060)
N-Phenyl-(4-methylphenyl)hydroxamic acid; CH3.C6H4.CO.N(C6H5)OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	NaClO4	30°C	0.10M	U		K1=8.80	B2=17.33	1969DSb (87498)	1420

****

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
UO2++	gl	alc/w	25°C	50%	U		K1=7.15	B2=13.55	1977DWa (87532)	1421

****

C14H13NO3 H2L (1386)
2-Hydroxy-5-methoxybenzophenone oxime; HO(CH3O)C6H3.C(:NOH)C6H5

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	diox/w	30°C	50%	U		K1=9.13	B2=16.49	1982UVa (87539)	1422

****

C14H13NO3 H2L (5064)
3-Methoxysalicylaldehyde aminophenol Schiff base

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	dis	oth/un		0.30M	U		K1=4.34		1968ZSa	(87542)1423

Medium: 0.3 M, acetate buffer

****

C14H13NO3 H2L CAS 51931-02-1 (5063)
N-(2-Hydroxy-1-naphthalidene)-beta-alanine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	oth	NaClO4	30°C	0.10M	U		K1=9.30		1972MSe	(87552)1424

****

C14H13NO3 HL CAS 13664-49-8 (5065)
N-Phenyl-(4-methoxybenzo)hydroxamic acid; CH3O.C6H4.CO.N(C6H5)OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	NaClO4	30°C	0.10M	U		K1=8.68	B2=17.03	1969DSb	(87556)1425

****

C14H22N2O10 H5L (1083)
1-Carboxy-1,5-diaminopentane-N,N,N',N'-tetraethanoic acid;
(HOOCCH2)2NCH(COOH)(CH2)4N(CH2COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	KNO3	25°C	0.10M	U		K1=14.27	1987HGa	(88900)1426
							B((UO2)H3L)=25.32		
							B((UO2)H2L)=23.17		
							B((UO2)HL)=20.05		
							B((UO2)H-1L)=7.73		

B((UO2)2L2)=31.03; B((UO2)2HL)=23.08; B((UO2)2L)=19.47; B((UO2)4H-2L2)=32.30
B((UO2)4H-4L2)=21.15

****

C14H22O5 H2L CAS 85785-29-1 (2250)
Di(hepta-4,6-dione)ether, (CH3.CO.CH2.CO.(CH2)3)2O

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	diox/w	24°C	50%	U		K1=11.8		1979ACa	(88995)1427

****

C14H23N3O10 H5L DTPA CAS 67-43-6 (238)
Diethylenetriamine-pentaethanoic acid; HOOC.CH2.N(CH2.CH2.N(CH2.COOH)2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	NaClO4	20°C	1.0M	U	M	K1=14.0		1998BMa	(89427)1428
							K(UO2L+H)=5.50			

```
                                        K(UO2HL+H)=4.15
                                        K(UO2H2L+H)=2.45
                                        K(UO2+UO2L)=5.5
K(2UO2CrL+2H2O=(UO2)2(OH)2(CrL)2+2H)=-5.60, K(UO2+CrL)=6.70. Cr=Cr(III)
--------------------------------------------------------------------------------
UO2++      EMF KNO3   25°C 0.10M C                      1982OLa (89428)1429
                                        K(2UO2+HL)=27.3
                                        K(UO2+HL)=8.8
                                        K(2UO2+HL)=8.8
                                        K(2UO2+L)=19.0
K(2UO2+2OH+L)=35.1
--------------------------------------------------------------------------------
UO2++      sp  NaClO4 30°C 0.10M U                      1980KJa (89429)1430
                                        B((UO2)H3L)=26.9
                                        B((UO2)2H3L)=31.2
                                        B((UO2)2HL)=22.9
                                        B((UO2)HL)=18.8
********************************************************************************
C14H24N2O8            H4L    HMDTA            CAS 1633-00-7  (920)
1,6-Diaminohexane-N,N,N',N'-tetraethanoic acid; ((HOOC.CH2)2N.CH2.CH2.CH2)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M C  I                   1984GMb (89613)1431
                                        B(UO2HL)=20.22
                                        B((UO2)2L)=19.43
                                        B((UO2)2H-1L)=14.23
                                        B((UO2)2L2)=31.89
B((UO2)4H-4L2)=20.18.  For I=1.0 M KNO3: B(UO2HL)=19.3, B((UO2)2L)=18.74,
B((UO2)2H-1L)=13.1, B((UO2)2L2)=30.98, B((UO2)4H-4L2)=19.7.
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M C  I                   1984GMb (89614)1432
                                        *K((UO2)2L)=-5.20
K(2UO2HL=(UO2(OH)H-1L)2+2H)=-8.55; K'(2(UO2)2L=(UO2L)2(OH)4+4H)=-16.68
In 1.0 M KNO3: K(2UO2HL=(UO2(OH)H-1L)2+2H)=-7.98; *K((UO2)2L)=-5.65;
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U                      1968FSa (89615)1433
                                        K(UO2+HL)=9.96
********************************************************************************
C14H24N2O10                EGTA            CAS 67-42-5  (349)
Ethyleneglycol-O,O'-bis(2-aminoethyl ether)-N,N,N',N'-tetraethanoic acid; H4L
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaNO3  25°C 1.10M U        K1=13.44       1995ADc (89955)1434
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U        K1=11.23  B2=19.03  1982NBa (89956)1435
--------------------------------------------------------------------------------
UO2++      gl  KNO3   25°C 0.10M U        K1=9.41        1970FSa (89957)1436
                                        B((UO2)2L)=17.66
```

K(UO2(OH)HL+H)=5.98
K(2UO2(OH)HL=(UO2)2(OH)2H2L2)=3.48, K(2UO2HL+2H2O=(UO2)2(OH)2H2L2+2H)=-8.48

UO2++ sp NaClO4 25°C 0.20M U 1967BRa (89958)1437
K(UO2+HL)=9.84
B((UO2)2L)=19.03
K(UO2(OH)HL+H)=5.61
K((UO2)2(H2O)2L=(UO2)2(OH)2L+2H)=-9.93

UO2++ EMF NaClO4 25°C 0.20M U 1967BRa (89959)1438
K(UO2(OH)HL+H)=5.44
K((UO2)2(H2O)2L=(UO2)2(OH)2L+2H)=-10.55
****
C14H28O7 L 21-Crown-7 CAS 33089-36-0 (2264)
1,4,7,10,13,16,19-Heptaoxacycloheneicosane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp non-aq 25°C 100% U K1=3.09 1989LMb (90544)1439
Medium: 0.1 M Et4NClO4 in propylene carbonate
****
C14H30N2O4 L CAS 31255-13-7 (2448)
N,N'-Dimethyl-cyclo-1,10-diaza-4,7,13,16-tetraoxaoctadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp non-aq 25°C 100% U K1=6.90 B2=14.28 1989LMb (90592)1440
Medium: propylene carbonate, 0.1 M Et4NClO4
****
C14H30N2O5 L CAS 23978-10-1 (2955)
1,10-Diaza-4,7,13,16,19-pentaoxacycloheneicosane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp non-aq 25°C 100% U K1=6.79 B2=12.96 1989LMb (90616)1441
Medium: propylene carbonate, 0.1 M Et4NClO4
****
C15H10N3OCl HL CAS 16195-35-0 (27)
5-(4-Chlorophenylazo)-8-hydroxyquinoline; Cl.C6H4.N:N.C9H5N.OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl alc/w 27°C 40% U K1=9.53 B2=28.99 1984EIa (90950)1442
****
C15H10O3 HL CAS 577-85-5 (3443)
3-Hydroxyflavone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp alc/w 20°C 80% U K1=8.68 1990MRa (90977)1443

****

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
UO2++	gl	diox/w	30°C	75%	U		K1=12.54 B2=24.12	1964CMb (91064)	1444

****

C15H11N3O HL PAN CAS 85-85-8 (572)
1-(2-Pyridylazo)-2-naphthol; C5H4N.N:N.C10H6.OH

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	NaClO4	31°C	0.10M	U	M	K1=7.78 B2=15.31 B(UO2L(Malonate))=13.19 B(UO2L(Diglycolate))=12.78 B(UO2L(Glutarate))=11.38 B(UO2L(Maleate))=13.30	1977SSb (91245)	1445

B((UO2)L(Glycolate))=12.01, B((UO2)L(Thiodiglycolate))=11.49

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	alc/w	27°C	40%	U		K1=9.31 B2=18.38	1984EIa (91272)	1446

Data also for 4-Cl-phenyl, 4-Br-, 4-MeO-, 4-Me2N- and 4-HSO3- analogues

****

C15H11N3O4S H2L CAS 574-70-9 (6238)
5-(4-Sulfophenylazo)-8-hydroxyquinoline,
4-((8-hydroxy-5-quinolinyl)azo)-benzenesulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	alc/w	27°C	40%	U		K1=8.46 B2=24.38	1984EIa (91331)	1447

****

C15H12N2O HL CAS 19726-12-6 (8336)
3-(2'-Hydroxyphenyl)-5-phenylpyrazole;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	alc/w	35°C	60%	U		K1=8.38 B2=16.20	1993ALb (91433)	1448

Medium: 60% v/v MeOH/H2O, 0.1 M KNO3. For 4-Cl-phenylpyrazole deriv.
K1=8.26, K2=7.55; for 1,5-diphenylpyrazole deriv. K1=9.60, K2=9.00.

****

C15H12N2O HL (3449)
4-Methyl-2-phenylquinazolin-8-ol;

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

UO2++ gl diox/w 20°C 50% U K1=8.53 B2=16.38 1954IRa (91437)1449
Medium: 50% dioxan, 0.3 M NaClO4
****
C15H12N3O4As H3L CAS 81315-66-2 (6237)
5-(2-Dihydroxyasenophenylazo)-8-hydroxyquinoline; (HO)2AsO.C6H4.N:N.C9H5N.OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl alc/w 27°C 40% U K1=7.64 B2=18.71 1984EIa (91447)1450
****
C15H12OS HL (1261)
mono-Thiodibenzoylmethane; C6H5.CO.CH2.CS.C6H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 30°C 75% U K1=10.34 B2=19.81 1966USa (91506)1451
****
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
---
UO2++ gl diox/w 30°C 75% U K1=11.61 B2=23.14 1977AHb (91566)1452

UO2++ dis oth/un 25°C 0.10M U B2=21.74 1970GRa (91567)1453
****
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
---
UO2++ gl diox/w 30°C 75% U K1=11.40 B2=22.43 1955HOa (91610)1454
****
C15H14N2O3 HL (6201)
2-Carboxy-2'-hydroxy-3',5'-dimethylazobenzene; HOOC.C6H4.N:N.C6H2(OH)(CH3)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 25°C 70% U I K1=15.68 B2=28.94 1987KBc (91716)1455
****
C15H14N2O5S HL (9232)
3-(5-Sulphonylnaphthylazo)penta-2,4-dione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl KCl 25°C 0.1M U H K1=7.56 2004ACb (91737)1456
for 35 C K1=7.37; for 45 C K1=7.19
****
C15H14O3 HL CAS 84-79-7 (3446)
2-Hydroxy-3-(3-methylbut-2-enyl)-1,4-naphthoquinone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 30°C 75% U K1=8.73 B2=16.03 1960KFc (91774)1457
****
C15H16N4OBr2 HL CAS 14337-54-3 (993)
2-(3,5-Dibromo-2-pyridylazo)-5-diethylaminophenol;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ vlt oth/un 25°C ? U M 1990WZa (91943)1458
B(UO2+L+Salicylate)=9.50
****
C15H33NO6 L CAS 70384-51-9 (838)
Tris(3,6-dioxaheptyl)amine; (CH3.CH2.O.CH2.CH2.O.CH2.)3N

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp non-aq 25°C 100% U K1=4.41 B2=8.19 1989LMb (92570)1459
Medium: propylene carbonate, 0.1 M Et4NClO4
****
C16H9NO5 HL (6257)
1-Anthraquinonyloxamic acid; C14H7O2.NH.CO.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp none 25°C 0.0 U K1=4.1 B2=12.50 1979ISa (92637)1460
Data also for 4-nitro analogue
****
C16H9N2OBr3 HL CAS 84317-74-8 (5169)
1-(2,4,6-Tribromophenylazo)-2-hydroxynaphthalene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl mixed 25°C 75% U K1=8.79 B2=15.73 1972MCb (92668)1461
Medium: 75% acetone, 0.1 M KNO3
****
C16H11NO3 HL HPBI CAS 41836-94-6 (7740)
3-Phenyl-4-benzoyl-5-isoxazolone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ dis non-aq 30°C 100% U 2000SCa (92688)1462
Kd=1.67
Kd: UO2+2HL(org)=UO2L2(org)+2H.
Method: Solvent extraction, H2O(0.5 M NaNO3)/chloroform.
****
C16H11N2OBr HL CAS 7150-24-5 (5172)
1-(4-Bromophenylazo)-2-hydroxynaphthalene;

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

---

UO2++ gl mixed 25°C 75% U K1=9.78 B2=18.75 1972MCb (92703)1463
Medium: 75% acetone, 0.1 M KNO3

****

C16H11N2OCl HL CAS 24390-65-6 (5170)
1-(2-Chlorophenylazo)-2-hydroxynaphthalene;

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

---

UO2++ gl mixed 25°C 75% U K1=9.29 B2=17.31 1972MCb (92718)1464
Medium: 75% acetone, 0.1 M KNO3

****

C16H11N2OCl HL CAS 10149-93-6 (5171)
1-(4-Chlorophenylazo)-2-hydroxynaphthalene;

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

---

UO2++ gl mixed 25°C 75% U K1=9.66 B2=18.50 1972MCb (92733)1465
Medium: 75% acetone, 0.1 M KNO3

****

C16H11N2OI HL CAS 25023-35-2 (5173)
1-(4-Iodophenylazo)-2-hydroxynaphthalene;

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

---

UO2++ gl mixed 25°C 75% U K1=9.92 B2=19.03 1972MCb (92748)1466
Medium: 75% acetone, 0.1 M KNO3

****

C16H11N2O8ClS2 H4L Solochrome FN CAS 25747-11-9 (8527)
6-[(5-Chloro-2-hydroxy-3-sulfophenyl)azo]-5-hydroxy-1-naphthalenesulfonic acid;

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

---

UO2++ gl oth/un 20°C 0.10M M T H K1=11.2 1978MBe (92780)1467
Medium: 0.10 M KClO4. Data for 44 C. DH and DS values reported.

****

C16H11N2O9ClS2 H4L Plasmocorinth CAS 1058-92-0 (5203)
3-(5-Chloro-2-hydroxyphenylazo)chromotropic acid (Eriochrome Blue SE)

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

---

UO2++ sp oth/un 25°C dil U B2=11.13 1968SMa (92786)1468

****

C16H11N3O3 HL CAS 6410-09-9 (5151)
1-(2-Nitrophenylazo)-2-hydroxynaphthalene;

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

---

UO2++ gl mixed 25°C 75% U K1=5.37 B2=9.16 1972MCb (92802)1469

Medium: 75% acetone, 0.1 M KNO3
****
C16H11N3O3 HL CAS 6410-46-1 (5152)
1-(4-Nitrophenylazo)-2-hydroxynaphthalene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl mixed 25°C 75% U K1=6.23 B2=11.75 1972MCb (92817)1470
Medium: 75% acetone, 0.1 M KNO3
****
C16H11N3O4 HL (2910)
1,3-Diphenyl-5-hydroxyimino-hexahydropyrimidine-2,4,6-trione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 30°C 75% C K1=6.18 B2=12.03 1978MGb (92837)1471
****
C16H12N2O HL CAS 842-07-9 (5156)
1-Phenylazo-2-hydroxynaphthalene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl mixed 25°C 75% U K1=10.64 B2=20.48 1972MCb (92923)1472
Medium: 75% acetone, 0.1 M KNO3
****
C16H12N2O2 H2L CAS 9486-98-2 (3462)
1-(2-Hydroxyphenylazo)-2-hydroxynaphthalene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl mixed 25°C 75% U 1972MCb (92959)1473
K(UO2+HL)=10.57
K(UO2HL+HL)=9.85
Medium: 75% acetone, 0.1 M KNO3
****
C16H12N2O2 H2L CAS 14934-27-1 (5157)
1-(4-Hydroxyphenylazo)-2-hydroxynaphthalene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl mixed 25°C 75% U 1972MCb (92975)1474
K(UO2+HL)=10.42
K(UO2HL+HL)=9.66
Medium: 75% acetone, 0.1 M KNO3
****
C16H12N2O3 HL CAS 49747-16-2 (8340)
7-Hydroxy-4-methyl-8-(phenylazo)coumarin;

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

UO2++ gl alc/w 25°C 60% U K1=7.08 B2=12.25 1992IOa (92980)1475
Medium: 60% v/v EtOH/H2O, 0.1 M NaCl. Data for a range of aryl-substituted derivatives.

****

C16H12N2O4S H2L CAS 13964-82-4 (3475)
1-(4-Sulfophenylazo)-2-hydroxynaphthalene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	mixed	25°C	75%	U		K1=6.28	B2=11.58	1972MCb	(93006)1476

Medium: 75% acetone, 0.1 M KNO3

****

C16H12N3O4ClS H2L CAS 133131-00-7 (8468)
7-Amino-8-[(4-chlorophenyl)azo]-4-hydroxy-2-naphthalenesulfonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	NaCl	25°C	0.10M	U		K1=8.38	B2=15.39	1997IHa	(93121)1477
							B3=20.52			

Also data for the 4'-bromo-, 4'-fluoro-, 4'-nitro-, 4'-methoxy-, 4'-di-methylamino-, 4'-hydroxy-, 4'-carboxy-, 4'-AsO(OH)2-, 2'-hydroxy- analogue

****

C16H12O4 H2L CAS 1795-39-7 (4071)
3-Benzyl-4,5-dihydroxycoumarin

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	sp	alc/w	21°C	40%	U				1966JKa	(93145)1478
							K(?)=5.0			

Medium: 40% EtOH, 0.4 M NaClO4

****

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
UO2++	sp	oth/un	25°C	?	U				1966SAe	(93216)1479
							K(?)=4.3			
UO2++	gl	oth/un	30°C	?	U		K1=15		1964PCa	(93217)1480

****

C16H14N2O HL (1318)
2-(2-Hydroxynaphthyliminomethyl)pyridine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	diox/w	25°C	50%	A		K1=8.23	1981RUa	(93415)1481

****

C16H14N4O2 H2L (3467)
5-Hydroxy-4-(2-hydroxyphenylazo)-3-methyl-1-phenylpyrazole;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp alc/w 25°C 100% U K1=7.08 B2=11.49 1991EHa (93478)1482
Medium: EtOH. Data also for other analogues
****
C16H14N4O4S HL (5184)
5-Methyl-1-phenyl-4-(2-sulfophenylazo)-3-pyrazolone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 30°C 75% U K1=9.71 1969SSc (93508)1483
****
C16H14O3 HL CAS 41126-22-1 (3457)
2-Methoxydibenzoylmethane; CH3.O.C6H4.CO.CH2.CO.C6H5

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 30°C 75% U K1=13.30 B2=24.36 1955HOa (93552)1484
****
C16H14O6 H2L CAS 20210-97-3 (8309)
Ethylene disalicylate;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp alc/w 25°C 61% C K1=18.27 1991DSb (93594)1485
Medium: 61.1% w/w EtOH/H2O, 0.50 M LiCl. K(H+L)=9.89, K(HL+H)=9.45.
Data for the propyl and higher analogues.
****
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
---
UO2++ gl diox/w 30°C 50% U K1=11.32 B2=21.74 1961MJa (93603)1486
****
C16H15N3O2S H2L (2105)
S-Methyl-N1,N4-bis(salicylidene)isothiosemicarbazone;
HO.C6H4.CH:N.N:C(SCH3).N:CH.C6H4.OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp NaClO4 25°C 0.05M U 1987CDa (93636)1487
K(UO2+L=UO2L)=10.6
****
C16H16N2O2 H2L CAS 94-93-9 (2101)
N,N'-Bis(salicylidene)ethylenediamine;(HO(C6H4)CH:NCH2-)2

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

UO2++ dis oth/un 20°C 0.30M U K1=24.35 1966SZa (93685)1488
Medium: acetate
****
C16H16N2O4 H2L CAS 6345-72-8 (6729)
N,N'-Ethylenebis(salicylamide), N,N'-1,2-Ethanediylbis(2-hydroxybenzamide);

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp alc/w 25°C 61% C K1=16.83 1991DSb (93704)1489
Medium: 61.1% w/w EtOH/H2O, 0.50 M LiCl. K(H+L)=9.28, K(HL+H)=8.48.
Data for the N,N'-1,3-propyl and higher analogues.
****
C16H18N2O3 HL (5564)
2-(2-Acetylphenylhydrazone)-5,5-dimethyl-1,3-cyclohexanedione;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 25°C 75% U K1=11.92 B2=22.87 1990ASb (93788)1490
****
C16H18N2O5S HL Penicillin V CAS 87-08-1 (943)
Phenoxymethylpenicillinic acid, 4-Thia-1-azabicyclo[3.2.0]heptane-2-carboxylic
acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl KNO3 25°C 0.10M M T H K1=7.50 B2=13.50 1983SBc (93820)1491
Also data for 35 C. DH(B2)=-5.86 kJ mol-1, DS(B2)=220 J K-1 mol-1.
****
C16H20N2O10 H6L (704)
1,2-Dihydroxy-3,6-di-(methyleneiminodiethanoic acid)-benzene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl KNO3 25°C 0.10M C K1=19.28 1988ZHa (94068)1492
K(UO2+H2L)=11.43
K(UO2+HL)=16.31
K(UO2HL+H)=6.25
K(UO2L+H)=8.90
****
C16H24O14 H4L CAS 61696-54-6 (6104)
1,4,7,10,13,16-Hexaoxacyclooctadeca-2,3,11,12-tetracarboxylic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp non-aq 25°C 100% U K1=5.61 1989LMb (94504)1493
Medium: 0.1 M Et4NClO4 in propylene carbonate
****
C16H34N2O6 L CAS 69930-74-1 (1321)
N,N'-Bis(2-hydroxyethyl)-1,7,10,16-tetraoxa-4,13-diazacyclooctadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp non-aq 25°C 100% U K1=7.08 B2=14.50 1989LMb (95459)1494
Medium: propylene carbonate, 0.1 M Et4NClO4
****
C16H35O4P HL CAS 298-07-7 (1625)
Di-(2-ethylhexyl)-phosphoric acid; (C2H5C6H12O)2P(O)OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ dis oth/un 25°C 2.0M U K1=-0.13 B2=-0.77 1989BFe (95517)1495
In 2.0 M HCl; for 15 C K1=-0.06; K2=-0.85;
for 35 C K1=-0.04; K2=-0.66
****
C17H13NO4 H2L CAS 216243-24-2 (8612)
5,7-Dihydroxy-2-methyl-6-[(phenylimino)methyl]-4H-1-benzopyran-4-one;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl alc/w 25°C 70% U TIH K1=6.68 B2=12.55 1998ISd (95754)1496
Medium: 70% v/v EtOH/H2O, 0.106 M NaCl. Data for 60-100% EtOH/H2O,
0.15-0.03 M NaCl and 0-55 C. At 25 C, I=0 M: K1=7.86, B2=15.17. DH and DS.
****
C17H13NO5 H3L CAS 216243-25-3 (8613)
5,7-Dihydroxy-6-[[(2-hydroxyphenyl)imino]methyl]-2-methyl-4H-1-benzopyran-4-one;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl alc/w 25°C 70% U TIH K1=6.76 B2=12.66 1998ISd (95757)1497
Medium: 70% v/v EtOH/H2O, 0.106 M NaCl. Data for 60-100% EtOH/H2O,
0.15-0.03 M NaCl and 0-55 C. At 25 C, I=0 M: K1=7.78, B2=14.91. DH and DS.
****
C17H14N2O HL CAS 2046-17-5 (5214)
1-(2-Methylphenylazo)-2-hydroxynaphthalene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl mixed 25°C 75% U K1=10.76 B2=19.92 1972MCb (95800)1498
Medium: 75% acetone, 0.1 M KNO3
****
C17H14N2O HL CAS 6756-41-8 (5215)
1-(4-Methylphenylazo)-2-hydroxynaphthalene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl mixed 25°C 75% U K1=11.04 B2=21.30 1972MCb (95815)1499
Medium: 75% acetone, 0.1 M KNO3
****
C17H14N2O2 HL CAS 1229-55-6 (5216)
1-(2-Methoxyphenylazo)-2-hydroxynaphthalene;

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  mixed  25°C  75%  U        K1=11.28  B2=21.66  1972MCb (95834)1500
Medium: 75% acetone, 0.1 M KNO3
********************************************************************************
C17H14N2O2             HL                     CAS 13441-91-1  (5217)
1-(4-Methoxyphenylazo)-2-hydroxynaphthalene;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  mixed  25°C  75%  U        K1=10.82  B2=20.75  1972MCb (95849)1501
Medium: 75% acetone, 0.1 M KNO3
********************************************************************************
C17H14N2O2              L                     CAS 4551-69-3  (698)
4-Benzoyl-3-methyl-1-phenyl-2-pyrazolin-5-one;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      dis oth/un 25°C 0.10M U  I     B2=12.85       1973BKc (95905)1502
I=1.0, B2=13.07
********************************************************************************
C17H14N2O5S           H3L    Calmagite        CAS 3147-14-6  (2875)
1-(1-Hydroxy-4-methyl-2-phenylazo)-2-naphthol-4-sulfonic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.10M U        K1=16.87  B2=30.77  1973MPd (95931)1503
********************************************************************************
C17H14O3              H2L                    CAS 1467-40-9  (795)
1,5-Diphenylpentane-1,3,5-trione; C6H5.CO.CH2.CO.CH2.CO.C6H5
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      sp  alc/w  25°C 70 %  U                       1991HKe (95978)1504
                                          B((UO2)HL)=8.95
Medium: 70% v/v MeOH/H2O, 0.5 M NaClO4
********************************************************************************
C17H15NO3              HL                      (6321)
Benzoylacetoneanthranilic acid; C6H5.CO.CH2.C(CH3):N.C6H4.COOH
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  50%  U        K1=11.55       1975PNa (95986)1505
********************************************************************************
C17H16O4               HL                     CAS 18362-51-1  (3485)
Di-2-methoxybenzoylmethane; CH3.O.C6H4.CO.CH2.CO.C6H4.O.CH3
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
```

UO2++ gl diox/w 30°C 75% U K1=13.28 B2=24.80 1955HOa (96173)1506
****
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
---
UO2++ gl NaClO4 ? 0.10M U K1=8.43 B2=15.45 1963DSa (96184)1507
****
C17H18N2O2 H2L (6774)
1,3-Bis(salicylaldimino)propane; CH2(CH2.N:CH.C6H4.OH)2

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp non-aq 25°C 100% U 1990EGa (96202)1508
K(UO2+2L=UO2H-2L2+2H)=5.86
Medium: ethylacetate. For analogues with -(CH2)6- K=5.74; -(CH2)2NH(CH2)2- K=6.18; -(CH2)2NH(CH2)2NH(CH2)2- K=7.40
****
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
---
UO2++ gl diox/w 30°C 75% U K1=12.95 B2=25.02 1964CMb (96843)1509
****
C18H13NO3 H2L (5238)
N-(2-Hydroxy-1-naphthalidene)anthranilic acid Schiff base;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 30°C 50% U K1=11.62 B2=19.15 1971MGa (96894)1510
Medium: 50% dioxan, 0.1 M NaClO4

UO2++ gl diox/w 30°C 50% U K1=11.62 B2=18.15 1971MSh (96895)1511
Medium: 50% dioxan, 0.1 M NaClO4
****
C18H13NO4 H3L CAS 698-51-6 (8424)
2-Hydroxy-4-[[2-hydroxy-1-naphthalenyl)methylene]amino]benzoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl alc/w 27°C 40% M K1=7.87 B2=12.65 1993MRa (96898)1512
Medium: 40% v/v EtOH/H2O, 0.10 M NaCl.
****
C18H13NO6 H3L CAS 216243-28-6 (8614)
5,7-Dihydroxy-6-[[(2-carboxyphenyl)imino]methyl]-2-methyl-4H-1-benzopyran-4-one;

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

UO2++ gl alc/w 25°C 70% U TIH K1=5.54 B2=10.17 1998ISd (96901)1513
Medium: 70% v/v EtOH/H2O, 0.106 M NaCl. Data for 60-100% EtOH/H2O,
0.15-0.03 M NaCl and 0-55 C. At 25 C, I=0 M: K1=6.84, B2=13.07. DH and DS.
****
C18H13N5O3S4 HL CAS 683787-43-1 (9097)
4-[(4-Oxo-3-phenyl-2-thioxo-5-thiazolidinyl)azo]-N-2-thiazolyl-benzenesulfonamide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl alc/w 25°C 30% U T H K1=7.90 B2=12.60 2003EEa (96906)1514
Medium: 30% v/v EtOH/H2O, 0.10 M KCl. Data for 25-45 C. DH(K1)=44 kJ mol-1
DS=297 J K-1 mol-1. DH(K2)=55, DS=274. Protonation constants not reported.
****
C18H14N2O2 HL CAS 15017-21-7 (6859)
2-Hydroxynaphthalidene benzoyl hydrazone; C6H5.CO.NH.N:CH.C10H6.OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 20°C 75% U T K1=8.76 B2=14.99 1992MCb (96910)1515
30 C: B1=8.65, B2=14.78; 40 C: B1=8.52, B2=14.56
****
C18H14N2O3 H2L CAS 54009-54-0 (6860)
2-Hydroxynaphthalidene salicylic hydrazone; HO.C6H4.CO.NH.N:CH.C10H6.OH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 20°C 75% U T K1=7.99 B2=13.69 1992MCb (96920)1516
30 C: B1=7.64, B2=13.41; 40 C: B1=7.48, B2=13.11
****
C18H14N2O4 H2L (3499)
2-(2-Hydroxy-1-naphthylazo)phenoxyethanoic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 30°C 75% U K1=15.01 1964PCa (96930)1517
****
C18H14N2O11S2 H5L (4133)
2-(2'-(Carboxymethoxy)phenylazo)chromotropic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp KNO3 25°C 0.10M U 1969SHb (96955)1518
K(UO2+HL)=10.10
****
C18H15N3O3S HL CAS 61625-17-0 (4139)
Di-4-tolylthiovioluric acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 30°C 25% M T H K1=5.09 B2= 9.46 1978MGe (97016)1519

Medium: 25% dioxane/H2O, 0.10 M NaClO4. Data for 40, 45 and 50 C. DH(K1)=
-35.8 kJ mol-1, DS(K1)=-21.2 J K-1 mol-1; DH(K2)=-47.3, DS(K2)=-71.3.

****

C18H15OP L CAS 791-28-6 (32)
Triphenylphosphine oxide; (C6H5)3PO

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	non-aq	25°C	100%	U	M	K((UO2A2)2+2L=2UO2A2L)=1.21	1976DBa	(97101)1520

HA=tropolone. Medium: benzene

****

C18H16N2O3 HL (5560)
2-(2-Acetylphenylhydrazone)-1-phenyl-but-1,3-dione;
C6H5.CO.C(CO.CH3):N.NH.C6H4.COCH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	diox/w	25°C	75%	U		K1=12.72 B2=24.37	1990ASb	(97181)1521

****

C18H16N4O4 H2L (3500)
2-(4,5-Dihydro-3-methyl-5-oxo-1-phenyl-1H-pyrazol-4-ylazo)phenoxyethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	diox/w	30°C	75%	U		K1=11.93	1962SCc	(97214)1522

****

C18H18O3 HL (5233)
Ethyl-2,4-diphenyl acetoacetate; C6H5.CH2.CO.CH(C6H5).CO.O.CH2.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	diox/w	30°C	75%	C		K1=13.20	1973AAa	(97299)1523

****

C18H20N2O4 H2L (4131)
1,2-Bis(3'-methoxysalicylideneamino)ethane; (CH3O.C6H3(OH).CH:N.CH2.)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	dis	oth/un	20°C	0.30M	U		K1=19.6	1966SZa	(97337)1524

Medium: acetate

****

C18H22O4 H2L B(CH2AcAcH)2 (2252)
1,3-Di(hexa-3,5-dione)-benzene; C6H4((CH2)2.CO.CH2.CO.CH3)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	diox/w	24°C	50%	U		K1=11.4	1979ACa	(97563)1525

****

C18H28O6 H2L O(EAcAcE)2O CAS 73199-63-0 (2251)

1,11-Dioxacycloeicosane-5,7,15,17-tetraone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	diox/w	24°C	50%	U		K1=12.5	1979ACa (97833)	1526

****

C18H28O10 H2L (OEOAcAcOE)2 CAS 62950-36-1 (2254)
1,4,10,13,16,22-Hexaoxacyclotetracosa-6,8,18,20-tetraone;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	diox/w	24°C	50%	U		K1=11.0	1979ACa (97871)	1527

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	NaClO4	25°C	0.50M	U		K(UO2+H2L)=6.15 K(UO2L+H)=6.40 K(UO2HL+H=UO2H2L)=5.69	1982NAc (98102)	1528
UO2++	EMF	KNO3	25°C	0.10M	C		K(2UO2+HL)=17.4 K(UO2+H2L)=7.6 K(UO2+H3L)=5.5 K(UO2+H4L)=4.5	1982OLa (98103)	1529

K(2UO2+H2L)=11.8, K(2UO2+2OH+HL)=30.4

****

C18H36N2O6 L Cryptand 2,2,2 CAS 23978-09-8 (514)
1,10-Diaza-4,7,13,16,21,24-hexaoxabicyclo[8.8.8]hexacosane;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	non-aq	25°C	100%	U		K1=7.70 B2=13.00 B((UO2)2L)=13.10	1985BFa (98763)	1530

Medium: propylene carbonate

****

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	none	25°C	0.0	U		K2=12.64 K(UO2L2+4A)=22.48	1979PKa (99001)	1531

A=cetylammonium ion

****

C19H12O9Br2S H6L Bromo Pyrog.Red CAS 16574-43-9 (706)
5',5"-Dibromopyrogallolsulfonephthalein;

```
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      sp  oth/un 20°C 0.02M U                      1970BLb (99014)1532
                                        K(UO2+H4L)=3.66   pH 5.6
********************************************************************************
C19H13NO2              HL                       (365)
N-Indolecarboxoyl(phenylpropionoloyl)methane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  75%  U        K1=8.30   B2=16.56  1977AHb (99019)1533
********************************************************************************
C19H14N6O3S3           HL                     CAS 364325-73-5  (9096)
4-[(4-Oxo-3-phenyl-2-thioxo-5-thiazolidinyl)azo]-N-2-pyrimidinyl-benzenesulfonamide
;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  alc/w  25°C  30%  U T H    K1=8.30   B2=13.60  2003EEa (99071)1534
Medium: 30% v/v EtOH/H2O, 0.10 M KCl. Data for 25-45 C. DH(K1)=44 kJ mol-1
DS=305 J K-1 mol-1. DH(K2)=43, DS=244. Protonation constants not reported.
********************************************************************************
C19H15N5O4S3           HL                     CAS 403480-96-6  (9095)
N-(5-Methyl-3-isoxazolyl)-4-[(4-oxo-3-phenyl-2-thioxo-5-thiazolidinyl)azo]-benzenes
ulfonamide;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  alc/w  25°C  30%  U T H    K1=7.73   B2=12.35  2003EEa (99149)1535
Medium: 30% v/v EtOH/H2O, 0.10 M KCl. Data for 25-45 C. DH(K1)=38 kJ mol-1
DS=276 J K-1 mol-1. DH(K2)=37, DS=211. Protonation constants not reported.
********************************************************************************
C19H16O3               HL                     CAS 29632-57-3  (5270)
alpha-(1-Oxo-3-phenyl-2-propynyl)-benzeneethanoic acid ethyl ester;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  75%  U        K1=11.43  B2=20.85  1973AAa (99178)1536
********************************************************************************
C19H18N4O4            H2L                      (4142)
4-(2'-(2''-Carboxyethoxy)phenylazo)-3-methyl-1-Phe-pyrazol-5(2H)-one;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  75%  U        K1=12.1        1965SMh (99253)1537
********************************************************************************
C19H19N7O6             H3L    Folic acid       CAS 75708-92-8  (194)
Pteroylglutamic acid;
--------------------------------------------------------------------------------
```

```
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      gl  KNO3   30°C 0.10M U  I     K1=4.05   B2=7.90   1970NDa (99290)1538
I=0: K1=4.70, K2=4.30. I=0.01: K1=4.55, K2=4.20. I=0.05: K1=4.20, K2=3.95
*************************************************************************
C19H22N4O4            H4L                    CAS 188798-32-5  (8086)
2,3-Bis(hydroxyimino)-1,4-bis(2'-hydroxybenzyl)-1,4-diazacycloheptane;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      gl  KCl    25°C 0.10M U        K1=15.7        1996MBa (99333)1539
                                         B(UO2HL)=22.8
                                         B(UO2HL2)=34.2
                                         B(UO2H-1L)=1.0
*************************************************************************
C20H11NO6S            H2L    Alizarin GreenG  CAS 6492-63-3  (8315)
6-Hydroxy-5-oxo-5H-dibenzo[a,j]phenoxazine 11-sulfonic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      sp  KCl     RT  0.10M C                        1979KNc (99526)1540
                                         K(UO2+2HL=UO2L2+2H)=2.65
                                         K(UO2+2HL+4S=UO2L2S4+2H)=15.17
S is cetyltrimethylammonium cation. Medium pH: 3.6-4.5.
Data for related ligands.
-------------------------------------------------------------------------
UO2++      sp  KCl     RT  0.10M M                        1979SRc (99527)1541
                                         K(UO2+2HL=UO2L2+2H)=2.9
Ligand is alizarine green G. Also data for disulfonic acid derivatives.
*************************************************************************
C20H13N3O7S           H3L    Eriochrome Bl T  CAS 1787-61-7  (997)
1-(1-Hydroxy-2-naphthylazo)-6-nitro-2-naphthol-4-sulfonic acid;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      gl  oth/un 20°C 0.10M M T H    K1=8.8         1978MBe (99576)1542
Medium: 0.10 M KClO4. Data for 44 C. DH and DS values reported.
-------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.10M U        K1=14.39  B2=26.43  1973MPd (99577)1543
*************************************************************************
C20H14N2O              HL                       (5291)
1-(1-Naphthylazo)-2-hydroxynaphthalene;
-------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
-------------------------------------------------------------------------
UO2++      gl  mixed  25°C  75%  U        K1=9.90   B2=18.92  1972MCb (99604)1544
Medium: 75% acetone, 0.1 M KNO3
*************************************************************************
C20H14N2O              HL                     CAS 2653-64-7  (5292)
1-(2-Naphthylazo)-2-hydroxynaphthalene;
```

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl mixed 25°C 75% U K1=10.44 B2=20.10 1972MCb (99619)1545
Medium: 75% acetone, 0.1 M KNO3
****
C20H14N2O5S H3L Solochrome 6B CAS 3564-14-5 (3507)
1-(1-Hydroxy-2-naphthylazo)-2-naphthol-4-sulfonic acid, Mordant Black3, Eriochrome blue-black B;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl oth/un 20°C 0.10M M T H K1=9.7 1978MBe (99666)1546
Medium: 0.10 M KClO4. Data for 44 C. DH and DS values reported.

UO2++ gl NaClO4 25°C 0.10M U K1=15.50 B2=27.56 1973MPd (99667)1547
****
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
---
UO2++ sp none 25°C 0.0 U 1978BRb (99738)1548
K1eff=4.10
Keff at pH 10
****
C20H15NO3 H2L (2120)
2-(alpha-Phenyl-2-hydroxybenzylideneimino)benzoic acid; HO.C6H4.C(C6H5):N.C6H4.COOH

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl NaClO4 25°C 0.10M U TIH K1=10.85 B2=19.88 1986SGb (99749)1549
35 C: K1=11.13, K2=9.35; 45 C:K1=11.55, K2= 9.60
DH(K1)=-95.3 kJ mol-1, DS=105 J K-1 mol-1
****
C20H15N3O4 HL (4147)
8-Hydroxy-7-(3-nitroanilinofurfuryl)-quinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sol oth/un 25°C ? U 1961TZa (99753)1550
Ks(UO2L2HL+2H=UO2+3HL)=-30.81
Acetate buffer
****
C20H16N2O2 H2L CAS 3946-91-6 (2733)
N,N'-Bis(2'-hydroxybenzylidene)-1,2-diaminobenzene; (HOC6H4CH:N)2.C6H4

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp non-aq 25°C 100% C 2000MRa (99776)1551

K(UO2L+A)=0.89
K(UO2L+B)=1.23
Medium: CHCl3. A: 2-cyclohexen-1-one; B: 4,4-dimethyl-2-cyclohexen-1-one.
For the 3'-phenyl-2'-hydroxybenzylidene derivative of L: K(UO2L+A)=2.95.

UO2++ sp alc/w 20°C 100% U K1=6.08 1984EAa (99777)1552

UO2++ dis oth/un 20°C 0.30M U K1=20.9 1966SZa (99778)1553
Medium: acetate

****

C20H16N2O2 H2L (2730)
N,N'-Bis(salicylidene)-1,4-phenylenediamine; (HO.C6H4.CH:N)2C6H4

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	sp	alc/w	20°C	100%	U	H	K1=3.98	B2=7.9	1983EAb	(99785)1554

****

C20H17NO HL (6215)
N-(2-Hydroxy-5-phenylbenzylidene)-2-methylaniline; C6H5.C6H3(OH).CH:N.C6H4.CH3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	diox/w	30°C	75%	U		K1=7.964	B2=15.34	1986MBd	(99811)1555

****

C20H18N4O2 HL (5917)
Pyruvic monohydrazone-3-hydrazino-4-benzyl-6-phenylpyridazine;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	diox/w	30°C	75%	U		B2=18.52	1985RSb	(99843)1556
							K(UO2+HL)=5.54		
							K(UO2+2HL)=10.58		
							K(UO2+L+HL)=15.50		

****

C20H19N3O3S HL CAS 380496-11-7 (9099)
1,3-Di(2-ethylphenyl)-4,5,6-pyrimidinetrione-2-thioxo-5-oxime;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	diox/w	25°C	75%	U	T H	K1=5.43	B2= 9.76	2001SSd	(99866)1557

Medium: 75% v/v dioxan/H2O, 0.10 NaClO4. Data for 30 and 35 C.
DH(B2)=-0.21 kJ mol-1.

****

C20H19N3O3S HL CAS 380496-12-8 (9100)
1,3-Di(3-ethylphenyl)-4,5,6-pyrimidinetrione-2-thio-5-oxime;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values		Reference	ExptNo
UO2++	gl	diox/w	25°C	75%	U	T H	K1=5.89	B2=11.03	2001SSd	(99876)1558

Medium: 75% v/v dioxan/H2O, 0.10 NaClO4. Data for 30 and 35 C.

DH(B2)=-0.42 kJ mol-1.
****
C20H19N3O3S HL CAS 380496-13-9 (9101)
1,3-Di(4-ethylphenyl)-4,5,6-pyrimidinetrione-2-thio-5-oxime;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 25°C 75% U T H K1=5.50 B2=11.11 2001SSd (99885)1559
Medium: 75% v/v dioxan/H2O, 0.10 NaClO4. Data for 30 and 35 C.
DH(B2)=-0.13 kJ mol-1.
****
C20H24O6 L DiBz-18-Crown-6 CAS 14187-32-7 (604)
2,3:11,12-Dibenzo-1,4,7,10,13,16-hexaoxacyclooctadeca-2,11-diene
---
Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp non-aq 25°C 100% U I K1=5.51 1989LMb (100256)1560
Medium: 0.1 M Et4NClO4 in propylene carbonate
In acetonitrile, K1=6.00

UO2++ sp non-aq 25°C 100% U I K1=5.51 1985BFa (100257)1561
Medium: propylene carbonate

UO2++ ISE non-aq 25°C 100% C K1=5.50 1984FLa (100258)1562
In propylenecarbonate; electrolyte Et4NClO4
****
C20H36O6 L DiCy-18-crown-6 CAS 16069-36-6 (1653)
2,3:11,12-Dicyclohexyl-1,4,7,10,13,16-hexaoxacyclooctadecane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ nmr non-aq 27°C 100% C I K1=2.93 2001KZa (100721)1563
Method: 7Li nmr; competitive binding study. Medium: nitromethane.
In acetonitrile, K1=2.52

UO2++ ISE non-aq 25°C 100% C K1=5.63 1984FLa (100722)1564
In propylenecarbonate; electrolyte Et4NClO4
****
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
---
UO2++ gl diox/w 30°C 50% U K1=11.59 B2=22.08 1961MJa (101074)1565
****
C21H18N6O3S3 HL CAS 364325-74-6 (9094)
N-(4,6-Dimethyl-2-pyrimidinyl)-4-[(4-oxo-3-phenyl-2-thioxo-5-thiazolidinyl)azo]-ben
zenesulfonamid

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

```
--------------------------------------------------------------------------------
UO2++      gl  alc/w  25°C  30%  U T H    K1=8.00   B2=12.87  2003EEa (101123)1566
Medium: 30% v/v EtOH/H2O, 0.10 M KCl. Data for 25-45 C. DH(K1)=44 kJ mol-1
DS=299 J K-1 mol-1. DH(K2)=37, DS=217. Protonation constants not reported.
********************************************************************************
C21H18N6O5S3           HL                     CAS 412024-79-4  (9093)
N-(5,6-Dimethoxy-4-pyrimidinyl)-4-[(4-oxo-3-phenyl-2-thioxo-5-thiazolidinyl)azo]-be
nzenesulfonami
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  alc/w  25°C  30%  U T H    K1=9.20   B2=16.55  2003EEa (101127)1567
Medium: 30% v/v EtOH/H2O, 0.10 M KCl. Data for 25-45 C. DH(K1)=36 kJ mol-1
DS=280 J K-1 mol-1. DH(K2)=37, DS=266. Protonation constants not reported.
********************************************************************************
C21H19NO               HL                       (6216)
N-(2-Hydroxy-5-phenylbenzylidene)-2,6-dimethylaniline;
C6H5.C6H3(OH).CH:N.C6H3(CH3)2
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  75%  U        K1=9.590  B2=12.16  1986MBd (101138)1568
********************************************************************************
C21H19N3O8S          H4L    MeNaptholOrange    (4151)
N-(1'-Hydroxy-4'-(4''-sulfophenylazo)-2'-naphthylmethyl)-iminodiethanoic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      sp  NaNO3  20°C 0.20M U        B2=12.41       1963BUb (101143)1569
********************************************************************************
C21H20N4O              HL                       (1408)
2,3-Butanedione-3-(4-benzyl-6-phenyl)-pyridazinyl hydrazone;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  diox/w 30°C  75%  U        K1=11.77  B2=22.63  1983RRa (101154)1570
********************************************************************************
C22H14O9               H5L                    CAS 4431-00-9  (3513)
Aurintricarboxylic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  NaClO4 25°C 0.10M U                       1968BDa (101512)1571
                                        K(UO2+HL)=7.40
                                        K(UO2HL+HL)=2.95
                                        K(UO2(HL)2+HL)=2.73
--------------------------------------------------------------------------------
UO2++      sp  oth/un 25°C    ?  U                       1965SAb (101513)1572
                                        K(UO2+HL)=4.5(?)
--------------------------------------------------------------------------------
```

UO2++ sp oth/un 25°C 0.01M U K1=4.77 1958MDa (101514)1573
****
C22H17N3O3 HL CAS 53855-37-1 (4154)
8-Hydroxy-7-(3'-nitroanilinobenzyl)-quinoline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sol oth/un 25°C ? U 1961TZa (101571)1574
Ks(UO2L2HL+2H=UO2+3HL)=-30.04
Acetate buffer
****
C22H17N4O14ClP2S2 H8L ClPhosphonazo 3 CAS 1914-99-4 (2577)
2,7-Bis((4-chloro-2-phosphophenyl)azo)chromotropic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp KNO3 25°C 0.20M U 1967BMc (101583)1575
B((UO2)H12L2)=47.7
****
C22H17N4O14ClP2S2 H8L CAS 86253-02-3 (4159)
2-(4'-Chloro-2'-phosphonophenylazo)-7-(2''-phosphonophenylazo)chromotropic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp KNO3 25°C 0.20M U 1967BMc (101586)1576
B((UO2)H10L2)=103.0
****
C22H18N4O14As2S2 H8L Arsenazo III CAS 1668-00-4 (1148)
2,7-Bis(2'-arsonophenylazo)chromotropic acid;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp oth/un RT 0.03M U 1997RRc (101655)1577
K1eff=7.37
Medium: HCl, pH 1.5.

UO2++ sp oth/un 25°C ? C K1=5.41 B2=11.0 1987SLa (101656)1578

UO2++ sp oth/un ? 7.0M U 1970KSc (101657)1579
K(UO2(NO3)2+H8L)=4.53
Medium: 2-12 M HNO3

UO2++ vlt KCl ? 0.60M U 1967TBa (101658)1580
K(UO2+H6L)=4.22
K(UO2+2H6L)=8.11
****
C22H18N4O14P2S2 H8L Phosphonazo III CAS 16017-11-1 (4158)
2,7-Bis(2'-phosphonophenylazo)chromotropic acid;

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

---
UO2++ sp KNO3 25°C 0.20M U 1967BMc (101670)1581
B((UO2)H10L2)=106.8
****
C22H18O2 HL (364)
4-Phenylbenzoyl(phenylpropionoloyl)methane;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 30°C 75% U K1=9.62 B2=18.72 1977AHb (101675)1582
****
C22H24N2O8 H2L Tetracycline CAS 60-54-8 (2201)
Tetracycline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl NaNO3 25°C 0.10M C K1=4.6 1992GAa (101829)1583

UO2++ vlt NaNO3 25°C 0.10M C K1=4.04 1992GAb (101830)1584
Method: polaography.
****
C22H24N2O9 H2L Oxotetracycline CAS 79-57-2 (2202)
Oxytetracycline, 5-Hydroxy-tetracycline;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl NaNO3 25°C 0.10M C K1=4.97 1992GAa (101888)1585
****
C23H16O9Cl2S H4L Chrome azurol S CAS 1667-99-8 (711)
Chromazurol S;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp oth/un ? 0.10M U 1970CSb (102576)1586
K(UO2+H2L=UO2(HL)+H)=0.45
K(UO2+H3L=UO2(HL)+2H)=-2.6
K(UO2+HL)=5.35
K(2UO2+H2L=(UO2)2L+2H)=1.6
K(2UO2+L)=18.3

UO2++ sp KCl 30°C 0.2M U K1=4.7 1960SDa (102577)1587
****
C23H18N2O3 HL (5561)
2-(2-Acetylphenylhydrazone)-1,3-diphenyl-prop-1,3-dione;
C6H5.CO.C(CO.C6H5):N.NH.C6H4.COCH3

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 25°C 75% U K1=12.28 B2=23.51 1990ASb (102603)1588
****

C23H18N2O3 H2L (4160)
7-(4'-Carboxyphenylaminobenzyl)-8-hydroxyquinoline;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sol	oth/un	25°C	?	U			1961TZa (102609)	1589

Acetate buffer. Ks(UO2(HL)2H2L+2H=2UO2+3H2L)=-22.98

****

C23H18O3 L CAS 29549-01-7 (5321)
Ethyl alpha-(alpha-naphthyl)phenylpropioloylethanoate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	diox/w	30°C	75%	U		K1=11.64 B2=21.39	1973AAa (102617)	1590

****

C23H27NO7 HL CAS 203302-24-3 (8395)
4'-(omega-Salicylaldiminoacetyl)benzo-15-crown-5;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	gl	KNO3	25°C	0.10M	M		K1=8.15 B(UO2H-1L)=3.36 B(UO2H-2L)=-2.17 B(UO2H-3L)=-10.35	1998ADb (102712)	1591

****

C24H20N4O14Cl2P2S2 H8L (4165)
2,7-Bis(4'-chloro-5'-methyl-2'-phosphonophenylazo)chromotropic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	KNO3	25°C	0.20M	U		B((UO2)H12L2)=108.7	1967BMc (102917)	1592

****

C24H32O8 L DiBz-24-Crown-8 CAS 14174-09-5 (580)
2,3:14,15-Dibenzo-1,4,7,10,13,16,19,22-octaoxacyclotetracosa-2,14-diene;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	non-aq	25°C	100%	U	I	K1=3.63	1989LMb (103182)	1593

Medium: 0.1 M Et4NClO4 in propylene carbonate
In acetonitrile, K1=5.16

****

C24H51N L CAS 1116-76-3 (4161)
Trioctylamine; (CH3.(CH2)7)3.N

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	dis	KNO3	?	2.50M	U			1960SSa (103532)	1594

Medium: HNO3. K(UO2+2NO3+LHNO3=UO2HL(NO3)2)=0.31(org=CCl4), 0.46(2-xylene)

****

C24H51OP L CAS 78-50-2 (4162)
Trioctylphosphine oxide; (C8H17)3P:O

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp non-aq 20°C 100% U 1983KBc (103544)1595
K(UO2Cl2+L)=2.56
K(UO2Cl2+2L)=5.32
Medium: acetone. Data also for other phosphonic acid esters
****
C26H22N4O HL (1410)
1-Phenyl-1-propanone-3-(4-benzyl-6-phenyl)-pyridazinyl hydrazone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 30°C 75% U K1=11.81 1983RRa (103867)1596
****
C26H23N5O2 HL (5918)
Hippuric monohydrazone-3-hydrazino-4-benzyl-6-phenylpyridazine;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 30°C 75% U K1=14.42 B2=25.80 1985RSb (103890)1597
****
C27H30O16 H4L Rutin CAS 153-18-4 (4169)
3,3',4',5,7-Pentahydroxyflavone-3-beta-rutinoside;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp KNO3 20°C 0.50M U 1963DJa (104510)1598
K(?)=9.35
****
C27H54N2O2 L THMA CAS 170126-54-2 (7624)
N,N,N',N'-Tetrahexylmalonamide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ dis non-aq 25°C 100% U I B2=0.59 1999LMa (104642)1599
B3=1.38
Media: t-butylbenzene and 1 M NaNO3. Also data for 2, 3, 4, 5 M NaNO3.
Bn: UO2(aq)+2NO3(aq)+nL(org)=UO2(NO3)2Ln(org)
****
C28H24N2O2 H2L Solvent Green 3 CAS 128-80-3 (1021)
1,4-Bis(4'-methylanilino)anthraquinone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp mixed 25°C 40% U K1=8.45 B2=10.29 1985ISb (104668)1600
In 40% DMF/H2O, 0.1 M NaClO4.
****

C28H30N2O7 L CAS 105169-83-3 (7173)
4,'5-Bis(salicylideneimino)-1,4,7,10,13-pentaoxa[13]orthocyclophan;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl KCl 25°C 1.00M C B2=11.60 1995ABb (104733)1601
B(UO2H-1L=UO2(OH)L)=0.80
B(UO2H-2L2=UO2(OH)2L2)=-1.35
****
C28H40O10 L DiBz-30-crown10 CAS 104946-67-0 (1776)
2,3:17,18-Dibenzo-1,4,7,10,13,16,19,22,25,28-decaoxacyclotriaconta-2,17-diene;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ sp non-aq 25°C 100% U K1=2.95 1989LMb (104921)1602
Medium: propylene carbonate, 0.1 M Et4NClO4
****
C28H56N2O2 L CAS 252344-64-2 (7625)
N,N,N',N'-Tetrahexyl-2-methylmalonamide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ dis non-aq 25°C 100% U I B2=0.53 1999LMa (105028)1603
B3=1.69
Media: t-butylbenzene and 1 M NaNO3. Also data for 2, 3, 4, 5 M NaNO3.
Bn: UO2(aq)+2NO3(aq)+nL(org)=UO2(NO3)2Ln(org)
****
C29H58N2O2 L CAS 252344-66-4 (7626)
N,N,N',N'-Tetrahexyl-2,2-dimethylmalonamide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ dis non-aq 25°C 100% U I B2=-1.10 1999LMa (105168)1604
B3=-2.14
Media: t-butylbenzene and 1 M NaNO3. Also data for 2, 3, 4, 5 M NaNO3.
Bn: UO2(aq)+2NO3(aq)+nL(org)=UO2(NO3)2Ln(org)
****
C31H24N4O HL CAS 88700-85-0 (1409)
1,2-Diphenyl-1,2-ethanedione-3-(4-benzyl-6-phenyl)-pyridazinyl hydrazone;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
---
UO2++ gl diox/w 30°C 75% U I K1=11.80 B2=23.09 1983RRa (105412)1605
In 75% DMF: K1=8.90, B2=16.67
****
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

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--------------------------------------------------------------------------------
UO2++      gl  KCl    25°C 0.10M U                      1982NAd (105504)1606
                                      K(UO2+H2L)=8.22
                                      K(UO2+H2L+OH)=15.48
                                      K(UO2H2L+OH)=7.26
                                      K(UO2+H2L+2OH)=21.78
K(UO2+HL+2OH)=23.3; K(UO2+L+2OH)=24.19;  K(UO2.H2L(OH)2=UO2HL(OH)2+H)=-8.9
--------------------------------------------------------------------------------
UO2++      sp  none   25°C  0.0  U                      1974BUb (105505)1607
                                      B((UO2)H2L)=29.80
                                      B((UO2)H4L2)=56.60
--------------------------------------------------------------------------------
UO2++      sp  oth/un 25?°C    ?  U                      1963OTa (105506)1608
                                      K(?)=11.46
--------------------------------------------------------------------------------
UO2++      sp  NaNO3  20?°C 0.20M U                      1962BUa (105507)1609
                                      B((UO2)2L2)=38.57
********************************************************************************
C32H66N2O4              L    22DD Kryptofix   CAS 79495-97-9  (6655)
1,10-Didecyl-1,10-diaza-4,7,13,16-tetraoxacyclooctadecane;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      sp  non-aq 25°C 100%  U        K1=3.88   B2=7.74   1989LMb (105866)1610
Medium: propylene carbonate, 0.1 M Et4NClO4
********************************************************************************
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
--------------------------------------------------------------------------------
UO2++      sp  NaClO4   ?  0.50M U                      1973CPb (106624)1611
                                      K(UO2+H2L)=6.0
                                      K(2UO2+H2L)=7.3
********************************************************************************
C54H62N8O14S4         H2L                    CAS 187828-35-9  (8875)
Bis[(4,10-Diaza-4,10-ditosyl-benzo-12-crown-4)4'-yl]diaminoglyoxime;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      gl  mixed  25°C  70%  U                      1996ADc (107539)1612
                                      K(UO2+HL)=15.34
                                      K(UO2+H+HL)=24.04
                                      K(UO2+2H+HL)=31.10
                                      K(UO2+HL=UO2H-1L+2H)=6.78
Medium: 70% v/v acetone/H2O, 1.0 M NaNO3. K(UO2+HL=UO2H-2L+3H)=-3.98,
K(UO2+HL=UO2H-3L+4H)=-15.71.
********************************************************************************
C66H4O8               H4L                    CAS 173173-83-6  (9060)
[C60]fullerene dimalonic acid;
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--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      sp  none   25°C  dil  C        K1=7.494       2003SHa (107773)1613
Self mediium, I=0.005-0.012 M.
********************************************************************************
C76H52O46             H9L    Gallotannin      CAS 1401-55-4  (2795)
Tannic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      oth KNO3   25°C 0.01M U                         1980LVa (107866)1614
                                      K1eff=6.36
                                      K2eff=4.96
Method: dialysis at pH 6
********************************************************************************
C88H96N8O12S4           L                      CAS 639027-46-6  (9277)
Tetra(benzoylthiocarbamido)cavitand;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      ISE NaCl    rt  0.01M C        K1=5.4         2003MGa (107930)1615
Method: segmented sandwich membrane ISE.
********************************************************************************
C88H96N8O16             L                      CAS 639030-70-9  (9278)
Tetra(benzoylcarbamido)cavitand;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      ISE NaCl    rt  0.01M C        K1=6.1         2003MGa (107938)1616
Method: segmented sandwich membrane ISE.
********************************************************************************
C112H120N4O16P4         L                      CAS 195455-62-0  (9276)
1,21,23,25-Tetrapentyl-7,11,15,28-tetra[(diphenylphosphinyl)acetamidomethylene]
cavitand;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      ISE NaCl    rt  0.01M C        K1=22.4        2003MGa (107995)1617
Method: segmented sandwich membrane ISE.
Phosphonic acid diethyl ester derivative: K1=25.5
********************************************************************************
Polymer                      DNA               (4185)
Deoxyribonucleic acid;
--------------------------------------------------------------------------------
Metal      Mtd Medium Temp Conc Cal Flags Lg K values       Reference ExptNo
--------------------------------------------------------------------------------
UO2++      sp  NaCl   23°C 0.15M U                         1961ZBa (108156)1618
                                      *K=6.9(salmon sperm)
*K not clearly defined
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Polymer Fulvic acid (1523)

Fulvic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	KNO3	25°C	0.10M	U		1998DMb	(108184)	1619
							K1eff=5.2		

Method: fluorescence quenching. Medium: pH 3.5.
Fulvic acid extracted from sewage sludge.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	KNO3	25°C	0.10M	U	I	1996SMb	(108185)	1620
							K1eff=3.93		

Method:synchronous fluorescence spectroscopy. pH 3.5.
For pH=7.0, K1eff=4.06.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	oth	KNO3	25°C	0.01M	U		1980LVa	(108186)	1621
							K1eff=7.43		
							K2eff=5.56		

Method: dialysis at pH 6

****

Polymer Humic acid (1524)

Humic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	ix	NaClO4	20°C	0.10M	C	T H	2000BJa	(108245)	1622
							K1eff=8.26		
							K2eff=7.58		

Aldrich humic acid. K1eff at pH 4.5. Also data for 40 and 60 C.
DH(K1eff)=-23 kJ mol-1, DS=62 J K-1 mol-1.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	ISE	NaClO4	25°C		C		2000LFa	(108246)	1623
							K1eff=ca. 3.5		
							B2eff=7.30		

Method: uranyl ion selective electrode.
Humic acid extracted from brown coal. Conditions: pH 5.0, [HA]/[M]=11.7.

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	dis	NaClO4	25°C	0.10M	U		K1=5.11 B2=8.94	1981SCb (108247)	1624

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	oth	KNO3	25°C	0.01M	U		1980LVa	(108248)	1625
							K1eff=6.73		
							K2eff=4.72		

Method: dialysis at pH 6

REFERENCES

2005ACa R Alieva,F Chyragov et al; Zh.Neorg.Khim.,50,137 (2005)
2004ACa R Alieva,F Chyragov,K Makhmudov; Zh.Neorg.Khim.,49,1577 (2004)
2004ACb R Alieva,F Chyragov,I Babamly et al.; Zh.Neorg.Khim.,49,1580 (2004)

2004CDb F Crea,C De Stefano,S Sammartano; Thermochim.Acta,414,185 (2004)
2004GMb A Gianguzza, D Milea,S Sammartano; Marine Chem.,85,103 (2004)
2004GMc S Gadzhieva,K Makhmudov; Zh.Neorg.Khim.,49,1397 (2004)
2004GZa F Gharib,K Zare,R Cheraghi; Zh.Neorg.Khim.49,1039 (2004)
2004KBa A Koban,G Bernhard; Polyhedron,23,1793 (2004)
2004MBa T Mehdoui,J Berthet,M Ephritikhine; J.Chem.Soc.,Dalton Trans.,579 (2004)
2003AHa I Ahmed; J.Chem.Eng.Data,48,272 (2003)
2003EEa A El-Sonbati,A El-Bindary,R Ahmed; J.Solution Chem.,32,617 (2003)
2003MGa E Malinowksa,L Gorski,D Wojciechowska; New J.Chem.,27,1440 (2003)
2003SHa J Soto-Guerrero,J Havel; Polyhedron,22,1085 (2003)
2002BRa P Brown; Radiochim.Acta,90,589 (2002)
2002DGa C De Stefano,A Gianguzza,T Leggio; J.Chem.Eng.Data,47,533 (2002)
2002HSa J Havel,J Soto-Guerrero,P Lubal; Polyhedron,21,1411 (2002)
2002JRa J Jiang,L Rao,P Di Bernardo,P Zanonato; J.Chem.Soc.,Dalton Trans.,1832 (2002)
2001KZa E Kharkhaneei,M Zebarjadian,M Shamsipur; J.Solution Chem.,30,323 (2001)
2001RNa C Riviere,M Nierlich,M Ephritikhine; Inorg.Chem.,40,4428 (2001)
2001SSd P Sharma,B Swaika,S Mittal,S Sindhwani; Indian J.Chem.,40A,1076 (2001)
2000BJa N Bryan,D Jones,M Appleton; Phys.Chem.Chem.Phys.,2,1291 (2000)
2000CBa M Comarmond,P Brown; Radiochim.Acta,88,573 (2000)
2000FIa D Ferri,M Iuliano,C Manfredi,E Vasca; J.Chem.Soc.,Dalton Trans.,3460 (2000)
2000LFa P Lubal,D Fetsch,J Havel; Talanta,51,977 (2000)
2000MNa L Morss,K Marsh,D Ensor; J.Chem.Soc.,Dalton Trans.,285 (2000)
2000MRa L Mandolini,D Reinhoudt; Chem.Eur.J.,6,1193 (2000)
2000PCa I Perez,I Casas,M Martin,J Bruno; Geochim.Cosmo.Acta,64,603 (2000)
2000SCa S Sahu,V Chakravortty,M Reddy; Talanta,51,523 (2000)
2000SGa Z Szabo, I Grenthe; Inorg.Chem.,39,5036 (2000)
2000VCa E Vasca,T Caruso,M Iuliano et al.; Ann.Chim.(Rome),90,181 (2000)
2000WMa R Wietzke,M Mazzanti,J Latour; J.Chem.Soc.,Dalton Trans.,4167 (2000)
1999ADd U Avciata,N Demirhan,A Gul; Synth.React.Inorg.Met.-Org.Chem.,29,827 (1999)
1999ASa W Aas,Z Szabo,I Grenthe; J.Chem.Soc.,Dalton Trans.,1311 (1999)
1999EEa A El-Bindary,A El-Sonbati,H Kera; Can.J.Chem.,77,1305 (1999)
1999GAa M Ghandour,E Aboul-Kasim,A Amrallah; J.Indian Chem.Soc.,76,480 (1999)
1999LMa G Lumetta,B McNamara,B Rapko; Inorg.Chim.Acta,293,195 (1999)
1999MBb R Moore,M Borkowski,G Choppin; J.Solution Chem., 28,521 (1999)
1998ADb U Avciata,N Demirhan,A Gul; Monatsh.Chem.,129,9 (1998)
1998BLa C Blanco; J.Chem.Soc.,Perkin Trans.II,2741 (1998)
1998BMa R Bucci,A D Magri,A L Magri,A Napoli; Ann.Chim.(Rome),88,25 (1998)
1998CPa I Casas,J de Pablo,J Giminez; Geochim.Cosmo.Acta,62,2223 (1998)
1998DGa P Diaz Arocas,B Grambow; Geochim.Cosmo.Acta,62,245 (1998)
1998DMb J de Silva,A Machado,C Oliveira; Talanta,45,1155 (1998)
1998EGa A El-Bindary,M Ghoneim,A El-Sonbati; Monatsh.Chem.,129,1259 (1998)
1998HCb M Hynes,E Clarke; J.Chem.Soc.,Perkin Trans.II,1263 (1998)
1998ISd Y Issa,O Sherif,S Abbas; Monatsh.Chem.,129,985 (1998)
1997EAa O El-Roudi,E Abd Alla,S Ibrahim; J.Chem.Eng.Data,42,609 (1997)
1997IHa Y Issa,W Hegazy; J.Indian Chem.Soc.,74,542 (1997)
1997RRc H Rohwer,N Rheeder,E Hosten; Anal.Chim.Acta,341,263 (1997)
1997RVa P Reddy,E Venkatadri; Indian J.Chem.,36A,608 (1997)

1996ADc U Avciata,N Demirhan,M Teker; J.Inclusion Phenom.,26,27 (1996)
1996AEa I Ahmed,O El-Roudi,A Boraei; J.Chem.Eng.Data,41,386 (1996)
1996KSc E Khairy,M Shoukry,M Khalil; Transition Met.Chem.,21,176 (1996)
1996MBa S Merey,O Bekaroglu; J.Coord.Chem.,40,177 (1996)
1996MIa M Mahmoud,S Ibrahim,A Hassan; Transition Met.Chem.,21,1 (1996)
1996SMb J da Silva,A Machado,C Oliveira; Analyst,121,1373 (1996)
1995ABb U Avciata,A Bozdogan,M Kocak et al; J.Coord.Chem.,35,319 (1995)
1995ADc R Ahuja,K Dwivedi; J.Indian Chem.Soc.,72,119 (1995)
1995CBa A Cassol,P di Bernardo,R Portanova; J.Chem.Soc.,Dalton Trans.,733 (1995)
1995JSa M Janarthanam,B Sivasankar,M Nair; Indian J.Chem.,34A,201 (1995)
1995PNa D Palmer,C Nguyen-Trung; J.Solution Chem.,24,1281 (1995)
1995SKb B Sekhon,N Kaur; J.Indian Chem.Soc.,72,545 (1995)
1994BRa J Bollinger,D Roundhill; Inorg.Chem.,33,6421 (1994)
1994BSd A El-Bindary,I Shehatta; Monatsh.Chem.,125,841 (1994)
1994DAb A Das; Indian J.Chem.,33A,740 (1994)
1994LSa P Lagrange,M Schneider,K Zare et al; Polyhedron,13,861 (1994)
1993ALb B Anandam,P Lingaiah; J.Indian Chem.Soc.,70,8 (1993)
1993EEa A El-Ansary,W El-Hawary,A Atwa; Indian J.Chem.,32A,913 (1993)
1993FSa D Ferri,F Salvatore,E Vasca et al; Acta Chem.Scand.,47,855 (1993)
1993GAa M Ghandour,E Aboul-Kasim,A Amrallah; J.Indian Chem.Soc.,70,615 (1993)
1993MKb G Meinrath,T Kimura; Inorg.Chim.Acta,204,79 (1993)
1993MKc G Meinrath,Y Kato,Z Yoshida; J.Radioanal.Nucl.Chem.,174,299 (1993)
1993MRa H Mohamed,M Rizk,Y Issa; Egypt.J.Chem.,36,491 (1993)
1993NAa M Nair,P Arasu,M Pillai et al; J.Chem.Soc.,Dalton Trans.,917 (1993)
1992BCb A Bismondo,U Casellato,L Rizzo; Inorg.Chim.Acta,191,69 (1992)
1992BRc A Bismondo,L Rizzo; Thermochim.Acta,196,131 (1992)
1992BTa A Burneau,M Tazi,G Bouzat; Talanta,39,743 (1992)
1992DBa R Djogic,M Branica; Electroanalysis,4,151 (1992)
1992GAa M Ghandour,H Azab et al; Monatsh.Chem.,123,51 (1992)
1992GAb M Ghandour,H Azab,A Hassan; Monatsh.Chem.,123,853 (1992)
1992IOa Y Issa,M Omar,B Sabrah,S Mohamed; J.Indian Chem.Soc.,69,186 (1992)
1992MCb A Maleque, A Chaudhury; Indian J.Chem.,31A,764 (1992)
1992NSb S Nguyen,R Silva,H Weed,J Andrews; J.Chem.Thermodyn.,24,359 (1992)
1992RSa D Rudkevich,W Stauthamer et al; J.Am.Chem.Soc.,114,9671 (1992)
1992SBa A Sandino,J Bruno; Geochim.Cosmo.Acta,56,4135 (1992)
1992SSc Sahadev,R Sharma et al; Monatsh.Chem.,123,25,883,1099 (1992)
1992SSf R Singh,M Saxena; J.Indian Chem.Soc.,69,222 (1992)
1991BCd G Bidoglio,P Cavalli,I Grenthe; Talanta,38,433 (1991)
1991DGa S Deiana,C Gessa,P Piu,R Seeber; J.Chem.Soc.,Dalton Trans.,1237 (1991)
1991DSb A Djurendic,T Suranyi,D Miljkovic; Coll.Czech.Chem.Comm.,56,1446 (1991)
1991EHa M El-Haty; Bull.Soc.Chim.Fr.,128,117 (1991)
1991GDe B Garg,R Dixit,N Kiran; Ann.Chim.(Rome),81,155 (1991)
1991GLa I Grenthe,B Lagerman; Acta Chem.Scand.,45,122,231 (1991)
1991HKe M Hynes,D Kelly; Inorg.Chim.Acta,181,93 (1991)
1991MAb J Mathur; Polyhedron,10,47 (1991)
1991SKc M Soliman,M Khatab; Bull.Soc.Chim.Fr.,128,894 (1991)
1991SKd M Soliman,M Khattab; Bull.Soc.Chim.Fr.,128,894 (1991)
1990AHa S Ahrland,G Hefter,B Noren; Acta Chem.Scand.,44,1 (1990)
1990ASb M A-Moez,S Stefan et al; Can.J.Chem.,68,774 (1990)
1990BGb J Bruno,I Grenthe,B Lagerman; Acta Chem.Scand.,44,896 (1990)

1990CDa A Cassol,P di Bernardo et al; Inorg.Chem.,29,1079 (1990)
1990CVc H Capdevila,P Vitorge; J.Radioanal.Nucl.Chem.,143,403 (1990)
1990DGb S Deiana,C Gessa,P Piu,R Seeber; J.Inorg.Biochem.,40,301 (1990)
1990EGa B Erk,N Gunduz; Inorg.Chim.Acta,167,91 (1990)
1990MRa D Malesev,Z Radovic et al; Monatsh.Chem.,121,455 (1990)
1990PNa D Prabhu,G Nair; Radioanal.Nucl.Chem.Lett.,145,419 (1990)
1990RCa L Rao,G Choppin; Inorg.Chem.,29,3589 (1990)
1990RFa D Rai,A Felmy,J Ryan; Inorg.Chem.,29,260 (1990)
1990SCa R Sawant,N Chaudhuri,S Patil; J.Radioanal.Nucl.Chem.,143,295 (1990)
1990SSc R Singh,M Saxena; Indian J.Chem.,29A,822 (1990)
1990THa C Nguyen-Trung,J Hovey; J.Phys.Chem.,94,7852 (1990)
1990VGa B Venkataramani,A Gupta; Indian J.Chem.,29A,373 (1990)
1990WZa Wang Xiaoping,Zhang Zuxun; Chem.J.of Chin.Univ.,11,942 (1990)
1989BFe L Bednarczyk,I Fidelis; J.Radioanal.Chem.78,319 (1989)
1989BGa J Bruno,I Grenthe,P Robouch; Inorg.Chim.Acta,158,221 (1989)
1989BRc A Bismondo,L Rizzo; Polyhedron,8,2233 (1989)
1989EHa A Evers,R Hancock,A Martell et al; Inorg.Chem.,28,2189 (1989)
1989KUb Y Koide,M Uchino,H Shosenji,K Yamada; Bull.Chem.Soc.Jpn.,62,3714 (1989)
1989LIa Li Yuwu; Huaxue Tongbao(Chem.China),3-51 (1989)
1989LMb J Lagrange,J Metabanzoulou et al; Polyhedron,8,2251 (1989)
1989NMa A Napoli,A Magri; Ann.Chim.(Rome),79,93 (1989)
1989RAb A Razik,F Ali,F Attia; Microchem.J.,39,258,265 (1989)
1989SHa G Sharma; Indian J.Chem.,28A,340 (1989)
1989WZa Wang Yingwei,Zeng Weihong; Chem.J.of Chin.Univ.,1263 (1989)
1989YAa Y Yousif,J Al-Imarah; Transition Met.Chem.,14,123 (1989)
1988GAc M Ghandour,R Aboudoma; J.Indian Chem.Soc.,65,245 (1988)
1988GRb S Gaur,S Ranga,S Sharma,R Mehta; Indian J.Chem.,27A,806 (1988)
1988JHa K Jarring,B Holmberg; Inorg.Chem.,27,1363,2531 (1988)
1988KCb F Khalili,G Choppin,E Rizkalla; Inorg.Chim.Acta,143,131 (1988)
1988KRc P Kamannarayana,K Raghavachari; Indian J.Chem.,27A,1010 (1988)
1988LKa L Lajunen et al; Finn.Chem.Lett.,15,101 (1988)
1988PPd G Parks,D Pohl; Geochim.Cosmo.Acta,52,863 (1988)
1988SSh B Santana,M Sanchez,J Arias; Coll.Czech.Chem.Comm.,53,258 (1988)
1988USa W Ullman,F Schreiner; Radiochim.Acta,43,37 (1988)
1988ZHa Zhang Hualin,Hua X,Jiang N,Yan Q Y; Acta Chimica Sinica,643 (1988)
1988ZMa M Zaky,M Moawad,S Stefan; Oriental J.Chem.,4,247 (1988)
1987AKb V Andhare,V Katkar,K Munshi; J.Indian Chem.Soc.,64,589 (1987)
1987BRa A Bismondo,L Rizzo,P di Bernardo et al; J.Chem.Soc.,Dalton Trans.,695 (1987)
1987CDa D Chuguryan,V Dzyubenko; Radiokhim.,29,280 (1987)
1987CSb C Chang,V Sekhar,B Garg; Inorg.Chim.Acta,135,11 (1987)
1987EAa M El-Haty,F Adam et al; Bull.Soc.Chim.Fr.,I,53 (1987)
1987EBa A Elyahyaoui,S Bouhlassa,M Hussonnois; J.Less Common Metals,135,147 (1987)
1987GMa M Goncalves,A Mota; Talanta,34,839 (1987)
1987HGa A Hernandez,S Garcia,J Moreno; Talanta,34,519 (1987)
1987KBc K Kariya,N Bhave; Indian J.Chem.,26A,786 (1987)
1987NCa C Niu,G Choppin; Inorg.Chim.Acta,131,277 (1987)
1987RDb S Ranga,K Daga,S Guer,R Mehta; Indian J.Chem.,26A,526 (1987)
1987SLa Sun Jiayan,Liu Chunshou,Wen Aimin; Acta Chimica Sinica,484 (1987)

1986BFa J Bruno,D Ferri,I Grenthe et al; Acta Chem.Scand.,A40,428 (1986)
1986BSb A Bismondo,S Sitran,L Rizzo,M Taskaeva; Inorg.Chim.Acta,121,89 (1986)
1986GRb I Grenthe,R Robouch,P Vitorge; J.Less Common Metals,122,225 (1986)
1986HKa T Hirotsu,S Katoh,K Sugasaka et al; J.Chem.Soc.,Dalton Trans.,1609 (1986)
1986KMc V Katkar,K Munshi; J.Indian Chem.Soc.,68,948 (1986)
1986MBd M Mayadeo,R Banavali; Indian J.Chem.,25A,396 (1986)
1986SGb S Sharma,A Gahlot,R Mehta; Indian J.Chem.,25A,279 (1986)
1986SHa U Sharma; Thermochim.Acta,101,381 (1986)
1986SIb M Seleim,K Idriss,M Saleh et al; Polyhedron,5,1525 (1986)
1986SLb A Samanta,S Limaye,M Saxena; Proc.Indian Acad.Sci.,97,543 (1986)
1986SPb R Saxena,R Parikh; Bull.Soc.Chim.Belges,95,163 (1986)
1986SYa S Singh,H Yadava,P Yadava; Z.Phys.Chem.(Leipzig),267,153 (1986)
1985ARc B Arbad; J.Indian Chem.Soc.,62,566 (1985)
1985BFa M Brighli,P Fux,J Lagrange,P Lagrange; Inorg.Chem.,24,80 (1985)
1985CEa E Casassas,M Esteban; J.Electroanal.Chem.,194,11 (1985)
1985GBa S Gangopadhyay,R Banerjee,D Banerjea; Transition Met.Chem.,10,325 (1985)
1985GGa E Gomaa,M Ghandour,R Abo-Doma; Monatsh.Chem.,116,33 (1985)
1985ISb K Idriss,M Seleim,M Abu-Bakr,H Sedaira; Polyhedron,4,1521 (1985)
1985KMc V Katkar,K Munshi; Indian J.Chem.,24A,677 (1985)
1985MMa F Mulla,F Marsicano,B Nakani et al; Inorg.Chem.,24,3076 (1985)
1985MSb A Misra,K Srinivasulu; Indian J.Chem.,24A,716 (1985)
1985RSb A Ramadan,M Seada et al; Monatsh.Chem.,116,463 (1985)
1985RSc B Rao,S Swamy,P Lingaiah; Indian J.Chem.,24A,887 (1985)
1985SCe R Sawant,N Chaudhuri,G Rizvi,S Patel; J.Radioanal.Nucl.Chem.,91,41 (1985)
1985SFa F Schreiner,A Friedman,R Richards; J.Nucl.Mat.,130,227 (1985)
1985SGc S Singh,D Gupta,K Yadava; Electrochim.Acta,30,223 (1985)
1985SKb J Sharma,A Kumar,B Puri; Polyhedron,4,1079 (1985)
1985VSa M Vyas,S Singh,S Tripathi,K Yadava; Ann.Chim.(Rome),75,377 (1985)
1985VSb G Venkatnarayana,S Swamy,P Lingaiah; Indian J.Chem.,24A,624 (1985)
1985ZHa M Zaky,W Hanna,E Nour,H Killa; Anal.Lett.,18,803 (1985)
1984BLb M Brighli,L Lagrange,P Lagrange; Polyhedron,3,469 (1984)
1984EAa A El-Samahy,A Mawgoud et al; Bull.Soc.Chim.Fr.,I,175 (1984)
1984EAb M El-Haty,F Adam; Bull.Soc.Chim.Fr.,I,284 (1984)
1984EIa A El-Ansary,Y Issa et al; Indian J.Chem.,23A,933 (1984)
1984FLa P Fux,J Lagrange,P Lagrange; Anal.Chem.(USA),56,160 (1984)
1984GFa I Grenthe,D Ferri et al; J.Chem.Soc.,Dalton Trans.,2439 (1984)
1984GMb M Goncalves,A Mota,J Da Silva; Talanta,31,531 (1984)
1984GMc M Ghandour,H Mansour,M Khodary; J.Indian Chem.Soc.,61,862 (1984)
1984GSe I Grenthe,K Spahiu,G Olofsson; Inorg.Chim.Acta,95,79 (1984)
1984IDa S Iftekhar,K Dubey; J.Indian Chem.Soc.,61,702 (1984)
1984LLa R Lundqvist,J-F Lu et al; Acta Chem.Scand.,A38,501 (1984)
1984MSc C Mahalingam,J Sthapak et al; Can.J.Chem.,84,2299 (1984)
1984SCa A Saito,G Choppin; Radiochim.Acta,36,135 (1984)
1984SIa J Sircar; J.Chem.Eng.Data,29,141 (1984)
1984SYa S Singh,H Yadava,P Yadava et al; Bull.Soc.Chim.Fr.,I,349 (1984)
1984TAb M Taskaeva; Inorg.Chim.Acta,94,59 (1984)
1983ASa B Arbad,D Shelke,D Jahagirdar; Indian J.Chem.,22A,124 (1983)
1983BRa A Bismondo,L Rizzo,G Timat,D Curto et al; Inorg.Chim.Acta,74,21 (1983)

1983CBa G Choppin,H Bokelund,S Yalkiers; Radiochim.Acta,33,229 (1983)
1983CNa G Chierice,E Almeida Neves; Polyhedron,2,31 (1983)
1983DBc Y Davydov,V Efremenkov; Zh.Neorg.Khim.,28,2316 (1983)
1983EAa M El-Haty,F Adam; Bull.Soc.Chim.Fr.,I,129 (1983)
1983EAb M El-Haty,F Adam; Bull.Soc.Chim.Fr.,I,253 (1983)
1983EEa G El-Inany,F Ebeid,S Abu-El-Wafa; Egypt.J.Chem.,26,145 (1983)
1983FGb D Ferri,I Grenthe,F Salvatore; Inorg.Chem.,22,3162 (1983)
1983GAa M Ghandour,R Aboudoma; Ann.Chim.(Rome),73,341 (1983)
1983KBc L Kobets,E Bouchikhin et al; Koord.Khim.,9,103 (1983)
1983LGa M Lurdes,S Goncalves et al; Talanta,30,69 (1983)
1983MAd K Menon,Y Agrawal; Transition Met.Chem.,8,292 (1983)
1983MPa M Markovic,N Pavkovic; Inorg.Chem.,22,978 (1983)
1983NMb M Nourmand,N Meissami; J.Chem.Soc.,Dalton Trans.,1529 (1983)
1983PYa P Prasad,H Yadav,S Singh,P Yadava; J.Electrochem.Soc.India,32,377 (1983)
1983RRa E Rizkalla,A Ramadan et al; Polyhedron,2,1155 (1983)
1983SBc S Sawhney,A Bansal; Thermochim.Acta,60,229 (1983)
1983SDc R Saxena,S Dhawan; J.Indian Chem.Soc.,60,87 (1983)
1983SEa M Suh,T Eom,S Kim; Bull.Korean Chem.Soc.,4,231 (1983)
1983SGe K Schmidt,S Gordon,M Thompson,J Sullivan; Radiat.Phys.Chem.,21,321 (1983)
1983SSe H Singh,D Singh,R Negi; J.Indian Chem.Soc.,60,344 (1983)
1982CKb B Chaudhari,S Kelkar,B Nemade; J.Electrochem.Soc.India,31,143 (1982)
1982MAc L Maya; Inorg.Chem.,21,2895 (1982)
1982MSh N Milic,T Suranji; Z.Anorg.Allg.Chem.,489,197 (1982)
1982NAc A Napoli; Ann.Chim.(Rome),72,567 (1982)
1982NAd R Nayan; Indian J.Chem.,21A,202 (1982)
1982NBa M Nourmand,I Bayat,S Yousefi; Polyhedron,1,827 (1982)
1982NMa M Nourmand,N Meissami; Polyhedron,1,537 (1982)
1982OLa A Overvoll,W Lund; Anal.Chim.Acta,143,153 (1982)
1982PMa M Petit-Ramel,L Mosoni; Fresenius' Z.Anal.Chem.,313,544 (1982)
1982RKa K Ramalingam,C Krishnamoorthy; Inorg.Chim.Acta,67,167 (1982)
1982RSb S Raman,S Shukla,R Thakur; J.Macromol.Sci.Chem.,A17,1399 (1982)
1982SLc J Stary,J Liljenzin; Pure & Appl.Chem.,54,2557 (1982)
1982SYb J Sircar,K Yadava; J.Chem.Eng.Data,27,231 (1982)
1982UVa V Unny,D Vartak; Indian J.Chem.,21A,493 (1982)
1982ZZa Zhang Jianmin,Zhang Aiyou,Chen B et al; Chem.J.of Chin.Univ.,281 (1982)
1981ASc S AwasthiM Sundaresan; Indian J.Chem.,20A,378 (1981)
1981BCg R Barbucci,M Casolaro,P Ferruti,L Oliva; Macromolecules,14,1203 (1981)
1981CFb L Ciavatta,D Ferri,I Grenthe,F Salvatore; Inorg.Chem.,20,463 (1981)
1981FGc D Ferri,I Grenthe,F Salvatore; Acta Chem.Scand.,A35,165 (1981)
1981GMi S Garg,S Mukherjee,B Garg,R Singh; Indian J.Chem.,20A,535 (1981)
1981HIa A Hammam,S Ibrahim; Indian J.Chem.,20A,100 (1981)
1981JKa D Jahagirdar,R Kharwadkar; Indian J.Chem.,20A,635 (1981)
1981RSa M Rao,B Sethuram,T Rao; Indian J.Chem.,20A,1136 (1981)
1981RUa M Ruedas; J.Inorg.Nucl.Chem.,43,606 (1981)
1981SCb P Shanbhag,G Choppin; J.Inorg.Nucl.Chem.,43,3369 (1981)
1981SJb D Shelke,D Jahagirdar; J.Inorg.Nucl.Chem.,43,174 (1981)
1981SJc D Shelke,D Jahagirdar; J.Inorg.Nucl.Chem.,43,757 (1981)
1981SSe R Singh,J Sircar,J Yadava et al; Electrochim.Acta,26,395 (1981)
1981SSh R Saxena,G Sharma; J.Electrochem.Soc.India,30,148 (1981)

1981TCc P Tremaine,J Chen,G Wallace,W Boivin; J.Solution Chem.,10,221 (1981)
1981YSa J Yadav,J Sircar,K Yadava; Electrochim.Acta,26,391 (1981)
1980BHb M Brooker,C Huang, J Sylwestrowicz; J.Inorg.Nucl.Chem.,42,1431 (1980)
1980BTa P di Bernardo,G Tomat,A Bismondo et al; J.Chem.Res.(S),234 (1980)
1980KJa K Kamble,V Jatkar et al; J.Inorg.Nucl.Chem.,42,1067 (1980)
1980LTb R Lemire,P Tremaine; J.Chem.Eng.Data,23,361 (1980)
1980LVa W Li,D Victor,D Chakrabarti; Anal.Chem.(USA),52,520 (1980)
1980MGd S Mukherjee,S Garg et al; Indian J.Chem.,19A,277 (1980)
1980NAa A Napoli; Ann.Chim.(Rome),70,131 (1980)
1980PDc N Pongi,G Double,J Hurwic; Bull.Soc.Chim.Fr.,I,347 (1980)
1980PPa V Perfilev,N Polyektov; Radiokhim.,22,457 (1980)
1980PSc D Prasad,K Saraswathy; J.Indian Chem.Soc.,57,246 (1980)
1980RRa V Ramanujam,K Rengaraj; Indian J.Chem.,19A,382 (1980)
1980RSb D Reddy,B Sethuram et al; Indian J.Chem.,19A,275,495 (1980)
1980SBe R Saxena,S Bansal; J.Indian Chem.Soc.,57,94 (1980)
1980SGh R Saxena,A Gupta; J.Electrochem.Soc.India,29,275 (1980)
1980SKd R Saxena,G Khandelwal; J.Indian Chem.Soc.,57,116 (1980)
1980SSf J Srivastava,M Srivastava; Talanta,27,763 (1980)
1980VKa P Vanura,L Kuca; Coll.Czech.Chem.Comm.,45,41 (1980)
1979ACa A Alberts,D Cram; J.Am.Chem.Soc.,101,3545 (1979)
1979BRb V Baju,D Raju et al; Indian J.Chem.,18A,87 (1979)
1979CFa L Ciavatta,D Ferri,M Grimaldi et al; J.Inorg.Nucl.Chem.,41,1175 (1979)
1979CPa F Chouaib,C Poitrenaud; Anal.Chim.Acta,108,333 (1979)
1979GBd V Gupta,A Bhat; Indian J.Chem.,18A,342 (1979)
1979GSa C Gupta,N Sankhla,R Mehta; J.Inorg.Nucl.Chem.,41,1392 (1979)
1979ISa K Idriss,M Seleim et al; Indian J.Chem.,17A,532 (1979)
1979KNc T Nguyen,E Ruzicka,J Lasovsky; Coll.Czech.Chem.Comm.,44,3264 (1979)
1979LPc L Lajunen,S Parhi; Finn.Chem.Lett.143 (1979)
1979LPe L Lajunen,S Parhi; Inorg.Nucl.Chem.Lett.,15,311 (1979)
1979MIb N Milic et al; Bull.Soc.Chim.Beograd,44,275 (1979)
1979PKa O Prakash,S Kumar,S Mushran; Talanta,26,1167 (1979)
1979RRa V Ramanujam,K Rengaraj et al; Bull.Chem.Soc.Jpn.,52,2713 (1979)
1979SAc B Spiess,F Arnaud-Neu; Inorg.Nucl.Chem.Lett.,15,13 (1979)
1979SDa R Silva,M Davidson; J.Chem.Soc.,Dalton Trans.,465 (1979)
1979SJc D Shelke,D Jahagirdar; J.Inorg.Nucl.Chem.,41,929 (1979)
1979SRc N Son,E Ruzicka,J Lasovsky; Coll.Czech.Chem.Comm.,44,3264 (1979)
1979ZKb V Zolin,L Korneeva,L Tikhomirova; Koord.Khim.,5,1440 (1979)
1978BRb H Brittain; Anal.Chim.Acta,96,165 (1978)
1978CPb D Chandel,K Pande; J.Indian Chem.Soc.,55,317 (1978)
1978DKa Kabir-ud-Din,I Khan; Monatsh.Chem.,109,1343 (1978)
1978DRa P Di Bernardo,E Roncari,U Mazzi; Thermochim.Acta,23,293 (1978)
1978GMd V Gupta,G Manku,A Bhat; Indian J.Chem.,16A,514 (1978)
1978KPc I Khalil,M Petit-Ramel et al; Can.J.Chem.,56,1919 (1978)
1978LKb L Lajunen,M Karvo; Acta Chem.Scand.,A32,370 (1978)
1978MBe W Malik,R Bembi,P Bhargava,R Singh; J.Indian Chem.Soc.,55,222 (1978)
1978MCa R Mittal,CM Chandra,A Dey; Monatsh.Chem.,109,953 (1978)
1978MCb R Mittal,M Chandra,A Dey; Monatsh.Chem.,109,853 (1978)
1978MCd M Mayadeo,A Chaubal,S Vartak; J.Indian Chem.Soc.,55,450 (1978)
1978MGb P Mathur,D Goel,R Singh; Monatsh.Chem.,109,839 (1978)
1978MGe P Mathur,D Goel,R Singh; J.Indian Chem.Soc.,55,879 (1978)

1978NNa N Nikolaeva; Izv.Sib.Otd.Akad.Nauk SSR,4,91 (1978)
1978SGg S Sarpal,A Gupta; Indian J.Chem.,16A,55 (1978)
1978SJa D Shelke,D Jahagirdar; Indian J.Chem.,16A,60 (1978)
1978SJb D Shelke,D Jahagirdar; J.Indian Chem.Soc.,55,545 (1978)
1978SKg D Sehgal,P Kanungo,R Mehta; Indian J.Chem.,16A,175 (1978)
1978ZIa S Zaidi,V Islam,K Siddiqi; Indian J.Chem.,16A,265 (1978)
1977ABb S Abbasi; Rocz.Chem.51,821 (1977)
1977AHb N Al-Niami,H Hamid; J.Inorg.Nucl.Chem.,39,849 (1977)
1977BNa P di Bernardo,V di Napoli et al; J.Inorg.Nucl.Chem.,39,1659 (1977)
1977DJb R Deshpande,D Jahagirdar; Indian J.Chem.,15A,230 (1977)
1977DWa K Dubey,B Wazir; Indian J.Chem.,15A,58 (1977)
1977JSa J Scanlan; J.Inorg.Nucl.Chem.,39,635 (1977)
1977NNa N Nikolaeva; Izv.Sib.Otd.Akad.Nauk SSR,1,56 (1977)
1977NNb N Nikolaeva; Izv.Sib.Otd.Akad.Nauk SSR,3,114 (1977)
1977RIa T Rudometkina,V Ivanov,A Busev; Zh.Neorg.Khim.,22,142(77) (1977)
1977RRa K Rangaraj,V Ramanujam; J.Inorg.Nucl.Chem.,39,489 (1977)
1977SKe R Saxena,G Khandelwal; Monatsh.Chem.,108,533 (1977)
1977SSb P Selvaraj,M Santappa; J.Inorg.Nucl.Chem.,39,119 (1977)
1977VBa V Volk,A Belikov; Radiokhim.,19,811 (1977)
1977VKa P Verma,P Khadikar,J Agrawal; J.Inorg.Nucl.Chem.,39,1847 (1977)
1977ZIa S Zaidi,V Islam; Indian J.Chem.,15A,155,473 (1977)
1976BBf P di Bernardo,A Bismondo,R Portanova et; Inorg.Chim.Acta,18,47 (1976)
1976BVa A Brits,R van Eldik,J van den Berg; Z.Phys.Chem.,(Frankfurt),99,107 (1976)
1976DBa S Degetto,L Baracco et al; J.Chem.Soc.,Dalton Trans.,1645 (1976)
1976EWb Y Egozy,S Weiss; J.Inorg.Nucl.Chem.,38,1713 (1976)
1976GPd H Girdhar,S Parveen,M Puri; Indian J.Chem.,14A,1021 (1976)
1976LGa K Lal,S Gupta; Indian J.Chem.,14A,260 (1976)
1976MDa T Medved,N Dyatlova et al; Izv.Akad.Nauk(USSR),5,1018(992) (1976)
1976MRa V Markhaeva,M Rudomino et al; Izv.Akad.Nauk(USSR),5,1024 (1976)
1976NFa C Neveu,G Folcher,A Laurent; J.Inorg.Nucl.Chem.,38,1223 (1976)
1976OMa D Ozha,R Mehta; Indian J.Chem.,14A,452 (1976)
1976PJa N Palaskar,D Jahagirdar; J.Inorg.Nucl.Chem.,38,1673 (1976)
1976PRa S Patil,V Ramakrishna; J.Inorg.Nucl.Chem.,38,1075 (1976)
1976RRb K Rengaraj,V Ramanujam; Indian J.Chem.,14A,451 (1976)
1976SKc S Sandhu,J Kumaria,R Sandhu; Indian J.Chem.,14A,817 (1976)
1976SSa P Selvaraj,M Santappa; J.Inorg.Nucl.Chem.,38,837 (1976)
1975AAc H Aly,A Abdel-Rassoul,N Zakareia; Z.Phys.Chem.,(Frankfurt),94,11 (1975)
1975BSa M Balakrishnan,M Santappa; J.Inorg.Nucl.Chem.,37,1229 (1975)
1975CSa S Cinneide J Scanlan,M Hynes; J.Inorg.Nucl.Chem.,37,1013 (1975)
1975DPb K Dubey,M Puri; Rev.Chim.Minerale,12,255 (1975)
1975EMa M Edrissi,A Massoumi; Talanta,22,693 (1975)
1975FNa G Folcher,C Neveu,P Rigny; J.Inorg.Nucl.Chem.,37,1537 (1975)
1975GSa S Grewal,B Sekhon,S Chopra; Thermochim.Acta,11,315 (1975)
1975HUa M-F Hutin; Bull.Soc.Chim.Fr.,463 (1975)
1975KMb B Kim,C Miyake,S Imoto; Bull.Chem.Soc.Jpn.,48,349 (1975)
1975OOa E Ohyoshi,J Oda,A Oyoshi; Bull.Chem.Soc.Jpn.,48,227 (1975)
1975PNa S Pania,K Kaul,R Mehta; Indian J.Chem.,13,295 (1975)
1975SSe R Saxena,S Sheelwant; Monatsh.Chem.,106,1081 (1975)
1974BFc J Bell,H Friedman,M Billings; J.Inorg.Nucl.Chem.,36,2563 (1974)

1974BSa M Balakrishnan,M Santappa; J.Inorg.Nucl.Chem.,36,3813 (1974)
1974BUa F Bunus; J.Inorg.Nucl.Chem.,36,917 (1974)
1974BUb B Budesinsky; Anal.Chim.Acta,71,333 (1974)
1974BUc F Bunus; Rev.Chim.,(Roumania),25,367 (1974)
1974CGb E Campi,M Gennaro; Ann.Chim.(Rome),64,761 (1974)
1974EJa S Ernst,B Jezowska-Trzebiatowska; Z.Phys.Chem.,255,801 (1974)
1974KIa H Kakihana,S Ishiguro; Bull.Chem.Soc.Jpn.,47,1665 (1974)
1974KRd A Kireeva,M Rudomino,N Dyatlova; Zh.Obshch.Khim.,44,2637 (1974)
1974LLb R Lysy,G Landresse,G Duyckaerts; Inorg.Nucl.Chem.Lett.,10,685 (1974)
1974LSa P Lingaiah,E Sundaram; Indian J.Chem.,12,539 (1974)
1974MAb M Mavrodin-Tarabic; Rev.Roumaine Chim.,19,1461 (1974)
1974MSb P Mohandas,O Sunar,C Trivedi; J.Inorg.Nucl.Chem.,36,937 (1974)
1974MTa L Magon,G Tomat,A Bismondo et al; Gazz.Chim.Ital.,104,967 (1974)
1974NUa C Nuallain; J.Inorg.Nucl.Chem.,36,1420 (1974)
1974PBa R Portanova,P di Bernardo,A Cassol et al; Inorg.Chim.Acta,8,233 (1974)
1974SSa R Saxena,P Singh; Monatsh.Chem.,105,1142 (1974)
1973AAa N Al-Niami,B Al-Saadi; J.Inorg.Nucl.Chem.,35,4199;4207 (1973)
1973AGa V Almagro,F Garcia et al; An.Quim.,69,709 (1973)
1973BKc W Bacher,C Keller; J.Inorg.Nucl.Chem.,35,2945 (1973)
1973CBc A Cassol,P di Bernardo,R Portanova et al; Inorg.Chim.Acta,7,353 (1973)
1973CPb E Chiacchierini,V Petrone,A Magri et al; Gazz.Chim.Ital.,103,501 (1973)
1973DSa P Das,O Sunar,C Trivedi; J.Inorg.Nucl.Chem.,35,316;677 (1973)
1973DVb C Dragulescu,N Vilceanu; Rev.Roumaine Chim.,18,49 (1973)
1973GBa P Govil,S Banerji; Analusis,2,215 (1973)
1973JKa D Jahagirdar,D Khanolkar; J.Inorg.Nucl.Chem.,35,921 (1973)
1973KJa V Khanolkar,D Jahagirdar,D Khanolkar; J.Inorg.Nucl.Chem.,35,931 (1973)
1973KPd S Kakkar,N Poonia,P Khadikar; J.Inorg.Nucl.Chem.,35,3021 (1973)
1973LEa I Lebedev; Zh.Neorg.Khim.,18,2936(E:1562) (1973)
1973MBb L Magon,A Bismondo,G Bandoli et al; J.Inorg.Nucl.Chem.,35,1995 (1973)
1973MGa R Mehta,R Gupta,V Singhi; Z.Phys.Chem.,253,49 (1973)
1973MPd S Mushran,O Prakash,R Murti; J.Inorg.Nucl.Chem.,35,2119 (1973)
1973MSd M Mittal,R Saxena,A Pandey; J.Inorg.Nucl.Chem.,35,1691 (1973)
1973NHa N Nakasuka,K Hirose,M Tanaka; J.Inorg.Nucl.Chem.,35,265 (1973)
1973NKb B Nikolskii,L Krylov,B Zakhvataev et al; Radiokhim.,15,6,804 (1973)
1973RAa A Rykov,N Andreichuk,V Vasilev; Radiokhim.,15,347(E:350) (1973)
1973RSa A Raghavan,M Santappa; J.Inorg.Nucl.Chem.,35,3363 (1973)
1973SCe B Sekhon,S Chopra; Thermochim.Acta,7,311 (1973)
1973SKb G Sergeev,I Koshunov; Radiokhim.,15,4,618;621 (1973)
1973SPf B Sekhon,S Parmar,S Pushkarna,S Chopra; Indian J.Chem.,11,835 (1973)
1973SSf R Saxena,S Sheelwant; J.Inorg.Nucl.Chem.,35,941;1383;3963 (1973)
1973TSe R Tewari,M Srivastava; Talanta,20,133;360 (1973)
1972BBb K Balachandran,S Banerji; J.Indian Chem.Soc.,49,543 (1972)
1972BGb R Buchacek,G Gordon; Inorg.Chem.,11,2154 (1972)
1972CIa L Ciavatta; Trans.Roy.Inst.Tech.(Stockholm),250 (1972)
1972DSc P Das,O Sunar,C Trivedi; J.Indian Chem.Soc.,49,1109 (1972)
1972DTb R Das,C Trivedi; J.Indian Chem.Soc.,49,739 (1972)
1972DVa A Djukanovic,K Velasevic,K Nikolic; Glas.Hem.Drus.,Beograd,37,363 (1972)
1972GKd V Glebov,A Klygin et al; Zh.Neorg.Khim.,17,3312(E:1740) (1972)
1972GSf A Gurevich,N Susorova; Radiokhim.,14,831(E:861) (1972)
1972HKc T Hseu,K Kuo; J.Chin.Chem.Soc.(Taipei),19,161 (1972)

1972LLa J Linde,A Luca,M Apostolescu; Bull.Inst.Politeh.Iasi.,18,53 (1972)
1972MAa M Maeda,T Amaya,H Ohtaki,H Kakihana; Bull.Chem.Soc.Jpn.,45,2464 (1972)
1972MCb G Manku,R Chadha,N Nayar,M Sethi; J.Inorg.Nucl.Chem.,34,1091 (1972)
1972MKc G Markovits,P Klotz,L Newman; Inorg.Chem.,11,2405 (1972)
1972MPa L Magon,R Portanova,B Zarli et al; J.Inorg.Nucl.Chem.,34,1971 (1972)
1972MSe R Mehta,V Singhi; J.Indian Chem.Soc.,49,953 (1972)
1972NPa N Nikolaeva,A Pirozhkov,V Antipina; Izv.Sib.Otd.Akad.Nauk SSR,5,143 (1972)
1972PRc E Piskunov,A Rykov; Radiokhim.,14,2,260;265;330;332;641 (1972)
1972PSa A Pant,R Soni,S Gupta; J.Inorg.Nucl.Chem.,34,2951 (1972)
1972RGc P Rawat,C Gupta; Talanta,19,706 (1972)
1972RKb K Rakhimov,T Khamraev,A Muftakhov; Uzbeksk.Khim.Zh.,2,29 (1972)
1972SNb E Sergeyeva,A Nikitin et al; Geokhim.,1340 (1972)
1972SSb P Selvaraj,M Santappa; Curr.Sci.,41,872 (1972)
1971AKa S Ahrland,L Kullberg; Acta Chem.Scand.,25,3457;3471 (1971)
1971AKb S Ahrland,L Kullberg; Acta Chem.Scand.,25,3677;3692 (1971)
1971BEa M Beran; J.Inorg.Nucl.Chem.,33,3885 (1971)
1971BLc A Bailey,J Larson; J.Phys.Chem.,75,2368 (1971)
1971BRc A Botar,R Ripan; Rev.Roumaine Chim.,16,807 (1971)
1971CAd A Corsini,J Abraham,M Thompson; Talanta,18,481 (1971)
1971GPa A Gurevich,L Polozhenskaya,N Osicheva; Radiokhim.,13,5,688 (1971)
1971GSc N Ghosh,G Siddhanta; Z.Anorg.Allg.Chem.,382,87;375,197 (1971)
1971HUa M Hutin; Compt.Rend.,273C,739 (1971)
1971JSb D Joshi,K Sharma; Z.Phys.Chem.,246,281 (1971)
1971MAa G Manku; Australian J.Chem.,24,925 (1971)
1971MAb G Manku; J.Inorg.Nucl.Chem.,33,285 (1971)
1971MGa R Mehta,R Gupta,V Singhi; Isr.J.Chem.,9,589 (1971)
1971MSh R Mehta,V Singhi,R Gupta; Z.Naturforsch.,26B,867 (1971)
1971NOb M Novikova; Izv.Sib.Otd.Akad.Nauk SSR,7,61 (1971)
1971OSb M Osman,T Salem,M El-Ezaby; J.Chem.Soc.(A),1401 (1971)
1971PSb A Pant,R Soni,S Gupta; J.Inorg.Nucl.Chem.,33,3202;34,763 (1971)
1971PWc R Porter,W Weber; J.Inorg.Nucl.Chem.,33,2443 (1971)
1971RBc S Ramamoorthy,M Balakrishnan et al; J.Inorg.Nucl.Chem.,33,2713 (1971)
1971RSa S Ramamoorthy,M Santappa; J.Inorg.Nucl.Chem.,33,1775 (1971)
1971SEa I Shikhova,M Ermakova,N Latosh; Zh.Obshch.Khim.,41,6,1329 (1971)
1971SOa R Soni; Collec.Czech.Chem.Commun.,36,1650 (1971)
1971SSc B Sekhon,P Singh,S Chopra; Indian J.Chem.,9,485 (1971)
1971TMc C Trivedi,P Mathur,O Sunar; J.Indian Chem.Soc.,48,270 (1971)
1971TSf S Tak,O Sunar,C Trivedi; J.Indian Chem.Soc.,48,969 (1971)
1971VMa D Vartak,K Menon; J.Inorg.Nucl.Chem.,33,1003 (1971)
1970ABd B Avinashi,S Banerji; J.Indian Chem.Soc.,47,177;453 (1970)
1970AKa A Adin,P Klotz,L Newman; Inorg.Chem.,9,2499 (1970)
1970BBb K Balachandran,S Banerji; J.Indian Chem.Soc.,47,343;353 (1970)
1970BCc J Brand,J Cobble; Inorg.Chem.,9,912 (1970)
1970BLb Y Bokra,C Luca; Bull.Soc.Chim.Fr.,3761 (1970)
1970CSb E Chiacchierini,T Sepel,L Sommer; Collec.Czech.Chem.Commun.,35,794 (1970)
1970DDc S Dube,S Dhindsa; J.Inorg.Nucl.Chem.,32,543;1041 (1970)
1970ERa S Eberle,W Robel; Inorg.Nucl.Chem.Lett.,6,359 (1970)
1970FMb O Farooq,A Malik,N Ahmad,S Rahman; J.Electroanal.Chem.,24,464 (1970)

1970FSa J Frausto da Silva,M Simoes; J.Inorg.Nucl.Chem.,32,1313 (1970)
1970FWa V Frei,H Wendt; Ber.Buns.Phys.Chem.,74,593 (1970)
1970GDa D Goel,Y Dutt,R Singh; J.Inorg.Nucl.Chem.,32,2119 (1970)
1970GMb R Gupta,G Manku,A Bhat,B Jain; Australian J.Chem.,23,1387 (1970)
1970GMe B Gupta,W Malik; J.Indian Chem.Soc.,47,145 (1970)
1970GMh R Gupta,G Manku,A Bhat,B Jain; Z.Anorg.Allg.Chem.,379,312 (1970)
1970GPb U Gupta,K Pande; J.Indian Chem.Soc.,47,245 (1970)
1970GRa J Gross; Ges.Kernforsch,KFK,1339 (1970)
1970GSf N Ghosh,G Siddhanta; Z.Anorg.Allg.Chem.,375,197 (1970)
1970GVa K Girdhar,K Vaidya,P Relam; J.Indian Chem.Soc.,47,715 (1970)
1970HSb J Havel,L Sommer; Collec.Czech.Chem.Commun.,35,45 (1970)
1970KKc A Klygin,N Kolyada,I Smirnova; Zh.Neorg.Khim.,15,3300(E:1719) (1970)
1970KSc A Klygin,I Smirnova,N Kolyada; Zh.Neorg.Khim.,15,12,3304 (1970)
1970LKa H Lahr,W Knoche; Radiochim.Acta,13,1 (1970)
1970MGd G Manku,R Gupta,A Bhat,B Jain; J.Indian Chem.Soc.,47,776 (1970)
1970MKe S Merkusheva,V Kumok,N Skorik et al; Radiokhim.,12,1,75;175 (1970)
1970NDa R Nayan,A Dey; Z.Naturforsch.,25B,1453 (1970)
1970NEc T Newton; J.Phys.Chem.,74,1655 (1970)
1970ROa W Robel; Ges.Kernforsch,KFK,1070 (1970)
1970RSb S Ramamoorthy,M Santappa; J.Inorg.Nucl.Chem.,32,1623 (1970)
1970STa A Stabrovskii; Elektrokhim.,6,1471(E:1420) (1970)
1970SWa L Sillen,B Warnqvist; Ark.Kemi.,31,377 (1970)
1969CBb E Chiacchierini,M Bartusek; Collec.Czech.Chem.Commun.,34,530 (1969)
1969DSb N Dutt,T Seshadri; J.Inorg.Nucl.Chem.,31,2153;3336 (1969)
1969GMc N Ghosh,A Mukherjee; Sci.Cult.,35,697 (1969)
1969GVa I Grenthe,J Varfeldt; Acta Chem.Scand.,23,988 (1969)
1969HAa J Havel; Collec.Czech.Chem.Commun.,34,2348 (1969)
1969HKb J Horak,M Kratka; Collec.Czech.Chem.Commun.,34,395 (1969)
1969HSa J Havel,L Sommer; Collec.Czech.Chem.Commun.,34,2674 (1969)
1969KBc Kabir-ud-Din,M Beg; J.Indian Chem.Soc.,46,503 (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)
1969KSf A Kettrup,H Specker; Zh.Anal.Khim.,256,108 (1969)
1969LLa T Lai,S Lee; Anal.Chem.,41,1316 (1969)
1969MIb V Mikhailov; Zh.Neorg.Khim.,14,2133 (1969)
1969MKd G Manoussakis,T Kouimtzis; J.Inorg.Nucl.Chem.,31,3851 (1969)
1969MOc A Moskvin; Radiokhim.,11,458(E:447) (1969)
1969MSg S Merkusheva,V Serebrennikov; Radiokhim.,11,5,600 (1969)
1969NOb B Noren; Acta Chem.Scand.,23,931 (1969)
1969OCa M Oh-Eidhin,S Cinneide; J.Inorg.Nucl.Chem.,31,2845 (1969)
1969RPb C Rao,S Pai; Radiochim.Acta,12,135 (1969)
1969RRa S Ramamoorthy,A Raghavan,M Santappa; J.Inorg.Nucl.Chem.,31,1765;1851 (1969)
1969SHb Y Shimoishi; Bull.Chem.Soc.Jpn.,42,690 (1969)
1969SHc H Singh,L Havel,L Sommer; Collec.Czech.Chem.Commun.,34,3277 (1969)
1969SSc F Snavely,D Sweigart; Inorg.Chem.,8,1659 (1969)
1969TSa B Tomazic,M Samarzija,M Branica; J.Inorg.Nucl.Chem.,31,1771 (1969)
1969TSb C Tsymbal; Rapp.CEA3476(Commiss.Ener.At.France) (1969)
1969TWa P Tedesco,H Walton; Inorg.Chem.,8,932 (1969)
1969VAa L Varga; Anal.Chem.,41,323 (1969)

1969VMa D Vartak,K Menon; J.Inorg.Nucl.Chem.,31,3141 (1969)
1969VOa A Vanni,G Ostacoli,E Roletto; Ann.Chim.,(Italy),59,847 (1969)
1969VOb A Vanni,G Ostacoli,E Roletto; Ann.Chim.,(Rome),59,847 (1969)
1969VSa V Vdovenko,O Stebunov; Radiokhim.,11,635;640(E:625;630) (1969)
1968ASb R Arnek,K Schlyter; Acta Chem.Scand.,22,1327;1331 (1968)
1968BDa A Banerjee,A Dey; J.Inorg.Nucl.Chem.,30,3134 (1968)
1968BDc A Banerjee,A Dey; Anal.Chim.Acta,42,473 (1968)
1968BDe A Banerjee,A Dey; J.Inorg.Nucl.Chem.,30,995 (1968)
1968BIa A Bilon; Rapp.CEA3611(Commiss.Ener.At.France) (1968)
1968CHc E Chiacchierini,J Havel,L Sommer; Collec.Czech.Chem.Commun.,33,4215 (1968)
1968CMb G Carey,A Martell; J.Am.Chem.Soc.,90,32 (1968)
1968FSa J Frausto da Silva,M Simoes; Talanta,15,609 (1968)
1968GDb B Garg,Y Dutt,R Singh; J.Indian Chem.Soc.,45,576 (1968)
1968GOa A Gurevich,N Osicheva; Radiokhim.,10,202 (1968)
1968GPe A Gurevich,L Polozhenskaya,L Solntseva; Radiokhim.,10,195 (1968)
1968GSg A Gurevich,N Susorova; Radiokhim.,10,211 (1968)
1968HSa J Havel,L Sommer; Collec.Czech.Chem.Commun.,33,529 (1968)
1968KKd V Krylov,E Komarov,M Pushlenkov; Radiokhim.,10,717;719;723 (1968)
1968MNa M Mishra,H Nigam; Acta Chim.Acad.Sci.Hung.,57,1 (1968)
1968MOc A Moskvin; Radiokhim.,10,13 (1968)
1968MTa G Marcu,M Tomus,M Solea; Stud.Univ.Babes-Bolyai,2,15 (1968)
1968OCa G Ostacoli,E Campi,M Gennaro; Gazz.Chim.Ital.,98,301 (1968)
1968PPb F Popea,C Parlog; Rev.Roumaine Chim.,13,473 (1968)
1968RSa S Ramamoorthy,M Santappa; Curr.Sci.,37,403 (1968)
1968RSf S Ramamoorthy,M Santappa; Bull.Chem.Soc.Jpn.,41,1330 (1968)
1968RSg S Ramamoorthy,M Santappa; Bull.Chem.Soc.Jpn.,7,1330 (1968)
1968SFb U Schedin,M Frydman; Acta Chem.Scand.,22,115 (1968)
1968SMa P Spacu,M Mavrodin; Rev.Roumaine Chim.,13,775 (1968)
1968SSd L Sommer,T Sepel,V Ivanov; Talanta,15,949 (1968)
1968SWa L Sillen,B Warnqvist; Acta Chem.Scand.,22,3032 (1968)
1968ZSa A Zielinski,I Stronski; Nukleonika,13,765 (1968)
1967AHa S Ahrland; Helv.Chim.Acta,50,306 (1967)
1967AJa M Alei,Q Johnson,H Cowan,J Lemons; J.Inorg.Nucl.Chem.,29,2327 (1967)
1967AMa V Athavale,N Mahadevan,P Mathur,R Sathe; J.Inorg.Nucl.Chem.,29,1947 (1967)
1967ANa R Anderson,G Nickless; Anal.Chim.Acta,39,469 (1967)
1967BAa M Bartusek; Collec.Czech.Chem.Commun.,32,116 (1967)
1967BAb M Bartusek; Collec.Czech.Chem.Commun.,32,757 (1967)
1967BAd M Bartusek; J.Inorg.Nucl.Chem.,29,1089 (1967)
1967BMc B Budesinsky,K Maas,A Besdekova; Collec.Czech.Chem.Commun.,32,1528 (1967)
1967BRa T Bhat,T Rao; Z.Anorg.Allg.Chem.,354,201 (1967)
1967CMd G Carey,A Martell; J.Am.Chem.Soc.,89,2859 (1967)
1967DSa N Dyatlova,I Seliverstova et al; Dokl.Akad.Nauk SSSR,172,94 (1967)
1967FSa J Frausto da Silva,M Sadler et al; Mem.Acad.Cien.Lisboa,11,31 (1967)
1967GDb B Gupta,Y Dutt,R Singh; Indian J.Chem.,5,214;322 (1967)
1967GKc Y Gryzin,K Koryttsev; Zh.Neorg.Khim.,12,101 (1967)
1967HAa J Hall; Collec.Czech.Chem.Commun.,32,2565 (1967)
1967HAb H Harries; J.Inorg.Nucl.Chem.,29,2484 (1967)

1967KSa A Koryushin,M Smirnov,V Komarov; Zh.Neorg.Khim.,12,2511 (1967)
1967LCa T Lai,T Chen; J.Inorg.Nucl.Chem.,29,2975 (1967)
1967MBa G Marcu,A Botar; Stud.Univ.Babes-Bolyai,12,2,11 (1967)
1967MEb A Moskvin,L Essen,T Bukhtiyarova; Zh.Neorg.Khim.,12,3390 (1967)
1967MNd C Miyake,H Nurnberg; J.Inorg.Nucl.Chem.,29,2411 (1967)
1967MSc S Merkusheva,N Skorik,V Kumok et al; Radiokhim.,9,723(E:683) (1967)
1967MSh A Moskvin,A Shelyakina,P Perminov; Zh.Neorg.Khim.,12,3319 (1967)
1967NPb G Nickless,F Pollard,T Samuelson; Anal.Chim.Acta,39,37 (1967)
1967OMb H Ohashi,T Morozumi; Nippon Gens.Gakkaishi,9,65 (1967)
1967RBa R Rao,P Bhattacharya; Curr.Sci.,36,71 (1967)
1967RMc K Rajan,A Martell; J.Inorg.Nucl.Chem.,29,523 (1967)
1967SIc L Sommer,V Ivanov; Talanta,14,171 (1967)
1967SId L Sommer,V Ivanov,H Novotna; Talanta,14,329 (1967)
1967SMe A Stepanov,T Makarova; Zh.Neorg.Khim.,12,1262 (2395) (1967)
1967SPe A Singh,N Prasad; Indian J.Chem.,5,573 (1967)
1967STe A Solovkin,Z Tsvetkova,A Ivantsov; Zh.Neorg.Khim.,12,626 (1967)
1967TBa I Tserkovnitskaya,T Bykhovtsova; Zh.Anal.Khim.,22,8,1201 (1967)
1967TGa H Thun,W Guns,F Verbeek; Anal.Chim.Acta,37,332 (1967)
1967VAa S Verma,R Agarwal; J.Less Common Metals,12,221 (1967)
1967WAa R Wallace; J.Phys.Chem.,71,1271 (1967)
1967ZOb F Zhakarova,M Orlova; Zh.Neorg.Khim.,12,10,2621 (1967)
1967ZOc F Zakharova,M Orlova; Zh.Neorg.Khim.,12,3016 (1967)
1967ZOd F Zakharova,M Orlova; Zh.Neorg.Khim.,12,3211 (1967)
1966BBf A Barocas,F Baroncelli,G Biondi,G Grossi; J.Inorg.Nucl.Chem.,28,2961 (1966)
1966BDa A Banerjee,A Dey; Proc.Symp.Elec.Proc.149 (1966)
1966BRc M Bartusek,J Ruzickova; Collec.Czech.Chem.Commun.,31,207 (1966)
1966BTb V Baran,M Tympl; J.Inorg.Nucl.Chem.,28,89 (1966)
1966EJa S Ernst,B Jezowska-Trzebiatowska; J.Inorg.Nucl.Chem.,28,2885 (1966)
1966GSb E Galinker,S Schnaiderman; Zh.Obshch.Khim.,36,9,1541 (1966)
1966JEa B Jezowska-Trzebiatowska,S Ernst; J.Inorg.Nucl.Chem.,28,1435 (1966)
1966JKa B Jain,R Kumar; Curr.Sci.,35,173 (1966)
1966MRa F Maggio,V Romano,R Cefalu; J.Inorg.Nucl.Chem.,28,1979 (1966)
1966NUa D Nebel,G Urban; Z.Phys.Chem.,233,73 (1966)
1966PKa V Paramonova,V Kalychev; Radiokhim.,8,3,304 (1966)
1966RSa J Rao,U Seshaiah; Bull.Chem.Soc.Jpn.,39,2668 (1966)
1966SAe S Sangal; J.Prakt.Chem.,31,68 (1966)
1966SKb L Sommer,L Kurilova-Navratilova,T Sepel; Collec.Czech.Chem.Commun.,31,1288 (1966)
1966SNe I Shilin,V Nazarov; Radiokhim.,8,514 (1966)
1966SOb J Sobkowski; Rocz.Chem.,40,271 (1966)
1966SZa T Stronski,A Zielinski,A Samotus,Stasick; Z.Anal.Chem.,222,14 (1966)
1966USa E Uhlemann,W Suchan; Z.Anorg.Chem.,342,41 (1966)
1966VMa D Vartak,N Menon; J.Inorg.Nucl.Chem.,28,2911 (1966)
1966VRa V Vdovenko,G Romanov,V Shcherbakov; Zh.Neorg.Khim.,11,252 (1966)
1965BAb M Bartusek; Collec.Czech.Chem.Commun.,30,2746 (1965)
1965BGa F Baroncelli,G Grossi; J.Inorg.Nucl.Chem.,27,1085 (1965)
1965BSb M Bartusek,O Stankova; Collec.Czech.Chem.Commun.,30,3415 (1965)
1965BSd M Bartusek,L Sommer; J.Inorg.Nucl.Chem.,27,2397 (1965)
1965DDb M Desai,B Desai; J.Indian Chem.Soc.,42,643 (1965)

1965DEa M Desai; Curr.Sci.,34,312 (1965)
1965DSb Y Dutt,R Singh; J.Indian Chem.Soc.,42,767 (1965)
1965FBa A Fiskin,M Beer; Biochemistry,4,1289 (1965)
1965MAb H Martin-Frere; Bull.Soc.Chim.Fr.,2860,2868 (1965)
1965NBa T Newton,F Baker; Inorg.Chem.,4,1166 (1965)
1965RGa J Rosenstreich,D Goldberg; Inorg.Chem.,4,909 (1965)
1965RMa K Rajan,A Martell; Inorg.Chem.,4,462 (1965)
1965SAb S Sangal; Chim.Anal.,47,288,662 (1965)
1965SMa P Souchay,H Martin-Frere; Bull.Soc.Chim.Fr.,2874 (1965)
1965SMd M Shiloh,Y Marcus; Isr.J.Chem.,3,123 (1965)
1965SMh F Snavely,W Magen,D Kozart; J.Inorg.Nucl.Chem.,27,679 (1965)
1965SSc L Sommer,T Sepel,L Kurilova; Collec.Czech.Chem.Commun.,30,3426;3834 (1965)
1965VPa V Vesely,V Pekarek,M Abbrent; J.Inorg.Nucl.Chem.,27,1159 (1965)
1965WMa J Woodhead,H McKay; J.Inorg.Nucl.Chem.,27,2247 (1965)
1964BKb T Bhat,M Krishnamurthy; J.Inorg.Nucl.Chem.,26,587 (1964)
1964BSe D Banerjea,I Singh; Z.Anorg.Chem.,331,225 (1964)
1964BSf M Bartusek,L Sommer; Z.Phys.Chem.,226,309 (1964)
1964CMb J Cook,D Martin; J.Inorg.Nucl.Chem.,26,571 (1964)
1964COc E Cordfunke; J.Phys.Chem.,68,3353 (1964)
1964GKa G Gordon,D Kern; Inorg.Chem.,3,1055 (1964)
1964HAa J Hall; Collec.Czech.Chem.Commun.,29,905 (1964)
1964JEa B Jezowska-Trzebiatowska,S Ernst; J.Inorg.Nucl.Chem.,26,837 (1964)
1964KGa D Kern,G Gordon; Pergamon,Warszawa,655 (1964)
1964MWb H McKay,J Woodhead; J.Chem.Soc.,717 (1964)
1964MZa I Muraveva,A Zaborenko,O Nemkova,H Pin; Radiokhim.,6,124 (1964)
1964NTa D Naumann,G Tschirne,W Burk; Z.Anorg.Chem.,332,63 (1964)
1964PCa Personal Communication etc; Chem.Soc.Spec.Publ.,no.17 (1964)
1964RAa K Rajan; Diss.Illinois Ins.Tech (1964)
1964RMb K Rajan,A Martell; J.Inorg.Nucl.Chem.,26,1927 (1964)
1964RMc K Rajan,A Martell; J.Inorg.Nucl.Chem.,26,789 (1964)
1964VMa V Vasilev,P Mukhina; Izv.VUZ.Khim.,7,711 (1964)
1964VSa V Vdovenko,A Skoblo,D Suglobov; Radiokhim.,6,677 (1964)
1964WAa D Wenz,M Adams,R Steudenberg; Inorg.Chem.,3,989 (1964)
1963BUb B Budesinsky; Z.Anal.Chem.,195,324 (1963)
1963DHa H Dunsmore,S Hietanen,L Sillen; Acta Chem.Scand.,17,2644;2657 (1963)
1963DJa B Dev,B Jain; J.Indian Chem.Soc.,40,269 (1963)
1963DSa Y Dutt,R Singh; Indian J.Chem.,1,402 (1963)
1963EKc N Ermolaev,N Krot; Zh.Neorg.Khim.,8,1282 (2447) (1963)
1963FKa I Feldman,L Koval; Inorg.Chem.,2,145 (1963)
1963HRa S Hietanen,B Row,L Sillen; Acta Chem.Scand.,17,2735 (1963)
1963KGa I Kuzin,I Galitskaya et al; Radiokhim.,5,89 (1963)
1963LNa Y Lukyanychev,N Nikolaev; Zh.Neorg.Khim.,8,1786 (1963)
1963MAa S Melton,E Amis; Anal.Chem.,35,1626 (1963)
1963MNb V Mathur,H Nigam,Srivastava; Bull.Chem.Soc.Jpn.,36,1658 (1963)
1963OTa M Otomo; Bull.Chem.Soc.Jpn.,36,137,140,889,1341 (1963)
1963PSb B Pozharskii,T Sterlingova,A Petrova; Zh.Neorg.Khim.,8,1594 (1963)
1963RJa R Rush,J Johnson; J.Phys.Chem.,67,821 (1963)
1963SDa S Srivastava,A Dey; Indian J.Chem.,1,200,242 (1963)
1963SGb S Shnaiderman,E Galinker; Zh.Neorg.Khim.,7,142 (279) (1963)

1963SKb A Smirnov-Averin,G Kovalenko,N Krot; Zh.Neorg.Khim.,8,2400 (1963)
1963STc J Stary; Anal.Chim.Acta,28,132 (1963)
1963VRa V Vdovenko,G Romanov; Atomnaya Energiya,15,168 (1963)
1963VRb V Vdovenko,G Romanov,V Shcherbakov; Radiokhim.,5,581;664 (1963)
1963VRc V Vdovenko,G Romanov,V Shcherbakov; Radiokhim.,5,137 (1963)
1962AAa J van Aartsen; Diss.Technische Hogeschool,Delft (1962)
1962BMb C Baes,N Meyer; Inorg.Chem.,1,780 (1962)
1962BUa B Budesinsky; Z.Anal.Chem.,188,266 (1962)
1962CMb C Crutchfield,W McNabb,J Hazel; J.Inorg.Nucl.Chem.,24,291 (1962)
1962CTb M Cefola,R Taylor,P Gentile,A Celiano; J.Phys.Chem.,66,790 (1962)
1962DYa D Dyrssen; Trans.Roy.Inst.Tech.(Stockholm),188;1962 (1962)
1962EKa N Ermolaev,N Krot; Radiokhim.,4,678 (1962)
1962FCa J Faucherre,A Crego; Bull.Soc.Chim.Fr.,1820 (1962)
1962GNa W Geary,G Nickless,F Pollard; Anal.Chim.Acta,26,575;27,71 (1962)
1962GNb W Geary,G Nickless,F Pollard; Anal.Chim.Acta,27,71 (1962)
1962HGa P Hostetler,R Garrels; Econ.Geol.,57,137 (1962)
1962HOa J Hall,A Okac; Collec.Czech.Chem.Commun.,27,1697 (1962)
1962KEa N Krot,N Ermolaev,A Gelman; Zh.Neorg.Khim.,7,1062 (2054) (1962)
1962NPa N Nikolaeva,V Paramonova,V Kolychev; Izv.Sib.Otd.Akad.Nauk SSR,3,70 (1962)
1962PNa V Paramonova,N Nikolaeva; Radiokhim.,4,84 (1962)
1962PNb V Paramonova,B Nikolskii,N Nikolaeva; Zh.Neorg.Khim.,7,1028 (1962)
1962PPa J Perez-Bustamante,J Polonio,R Cellini; Anal.Real Soc.Esp.Fis.Quim.,B58,677 (1962)
1962RAb D Roach,E Amis; Z.Phys.Chem.,(Frankfurt),35,274 (1962)
1962RJa R Rush,J Johnson,K Kraus; Inorg.Chem.,1,378 (1962)
1962SAb F Sherif,A Awad; Anal.Chim.Acta,26,235 (1962)
1962SBb J Stary,V Balek; Collec.Czech.Chem.Commun.,27,809 (1962)
1962SCc F Snavely,G Craver; Inorg.Chem.,1,890 (1962)
1962SCe K Schlyter; Trans.Roy.Inst.Tech.(Stockholm),195;196 (1962)
1962SGd M Stepanov,N Galkin; Zh.Neorg.Khim.,7,983 (1962)
1962SMa M Shiloh,Y Marcus; Israel A.E.C. (1962)
1961BTa D Banerjea,K Tripathy; J.Inorg.Nucl.Chem.,18,199 (1961)
1961CAa V Chukhlantsev,K Alyamovskaya; Isvest.VUZ.Khim.,4,359;706 (1961)
1961CPc R Connick,A Paul; J.Phys.Chem.,65,1216 (1961)
1961JCa B Jezowska-Trzebiatowska,M Chmielowska; J.Inorg.Nucl.Chem.,20,106 (1961)
1961KAb V Karpov; Zh.Neorg.Khim.,6,531 (1961)
1961KKa A Klygin,N Kolyada; Zh.Neorg.Khim.,6,107 (216) (1961)
1961KOb A Kozlov; Zh.Neorg.Khim.,6,1302 (1961)
1961KUa A Kuteinikov; Radiokhim.,3,706 (1961)
1961KZa A Klygin,D Zavrazhnova,N Nikolskaya; Zh.Anal.Khim.,16,297 (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)
1961MMc D Morgan,C Monk; Trans.Faraday Society,57,463 (1961)
1961NLa N Nikolaev,Y Lukyanychev; Atomnaya Energiya,11,67 (1961)
1961NPb B Nair,L Prabhu,D Vartak; J.Sci.Ind.Res.(India),20,B489 (1961)
1961PEa A Peterson; Acta Chem.Scand.,15,101 (1961)
1961RYb J Ryan; J.Phys.Chem.,65,1099 (1961)
1961SAd F Sherif,A Awad; J.Inorg.Nucl.Chem.,19,94 (1961)
1961SOe J Sobkowski; J.Inorg.Nucl.Chem.,23,81 (1961)

1961TZa E Trailina,V Zelentsov,I Savich; Zh.Neorg.Khim.,6,1047 (2048) (1961)
1961ZBa C Zobel,M Beer; J.Biophys.Biochem.Cytol.,10,335 (1961)
1960ASa A Adams,T Smith; J.Chem.Soc.,4846 (1960)
1960BKa A Babko,V Kodenskaya; Zh.Neorg.Khim.,5,2568 (1960)
1960BRb S Brusilovskii; Trudy Inst.Geol.rud.Mest.,42,58 (1960)
1960BSb C Banks,R Singh; J.Inorg.Nucl.Chem.,15,125 (1960)
1960DMa R Denotkina,A Moskvin,V Shevchenko; Zh.Neorg.Khim.,5,805;1509 (1960)
1960FNa I Feldman,C North,H Hunter; J.Phys.Chem.,64,1224 (1960)
1960GPa A Gurevich,L Preobrazhenskaya et al; Radiokhim.,2,32 (1960)
1960GRa R Gustafson,C Richard,A Martell; J.Am.Chem.Soc.,82,1526 (1960)
1960HAb J Hefley,E Amis; J.Phys.Chem.,64,870 (1960)
1960HIa S Hietanen; Personal communication (1960)
1960KFa H Kido,W Fernelius,C Haas; Anal.Chim.Acta,23,116 (1960)
1960KFc H Kido,W Fernelius,C Haas; Penn.State Univ.Con.No.AT(30)-907 (1960)
1960KKa A Kozlov,N Krot; Zh.Neorg.Khim.,5,954 (1959) (1960)
1960KKb A Klygin,N Kolyada; Zh.Neorg.Khim.,5,1170 (1960)
1960LSa M Lietzke,R Stoughton; J.Phys.Chem.,64,816 (1960)
1960MAa V Markov et al; Atomizdat Moskva.,p.66 (1960)
1960MAb S Matsuo; J.Chem.Soc.Jpn.,81,833 (1960)
1960MAd V Markov et al; Uran.met.ego.opr.Atom.Moskva.,p.77 (1960)
1960MIa V Michajlov; Zh.Anal.Khim.,15,605 (528) (1960)
1960MLa S Minc,S Libus; Radiokhim.,2,643 (1960)
1960NAc K Naito; Bull.Chem.Soc.Jpn.,33,363 (1960)
1960NVa N Nikolaev,S Vlasov,Y Buslaev et al; Izv.Sib.Otd.Akad.Nauk SSR,47 (1960)
1960OOa M Oosting; Rec.Trav.Chim.,79,627 (1960)
1960RYa J Rydberg; Acta Chem.Scand.,14,157 (1960)
1960SBb A Savage,J Browne; J.Am.Chem.Soc.,82,4817 (1960)
1960SDa S Srivastava,A Dey; Thesis,Allahabad Univ.India (1960)
1960SGa M Stepanov,N Galkin; Atomnaya Energiya,9,282 (1960)
1960SSa V Shevchenko,V Shmidt,E Nenarokomov; Zh.Neorg.Khim.,5,1140 (2354) (1960)
1960SSc V Shevchenko,V Shmidt et al; Zh.Neorg.Khim.,5,2354 (1960)
1960STa J Stary; Collec.Czech.Chem.Commun.,25,2630 (1960)
1960STb J Stary; Collec.Czech.Chem.Commun.,25,86;890 (1960)
1960STc J Stary; Collec.Czech.Chem.Commun.,25,890 (1960)
1959DGd N Dutt,N Goswami; Z.Anorg.Chem.,298,258;265 (1959)
1959EKa P Elving,A Krivis; J.Inorg.Nucl.Chem.,11,234 (1959)
1959GJa L Gilpatrick,H Jolley,M Kelly et al; CF,59-10-121 (1959)
1959HSa S Hietanen,L Sillen; Acta Chem.Scand.,13,1828 (1959)
1959KKb A Klygin,N Kolyada; Zh.Neorg.Khim.,4,239 (1959)
1959KOb E Komarov; Zh.Neorg.Khim.,10,1313 (1959)
1959KPb E Komarov,L Preobrazhenskaya,A Gurevich; Zh.Neorg.Khim.,4,1667 (1959)
1959KSa A Klygin,I Smirnova,N Nikolskaya; Zh.Neorg.Khim.,4,1209(2623),1279 (1959)
1959KSb A Klygin,I Smirnova,N Nikolskaya; Zh.Neorg.Khim.,4,1674 (1959)
1959KSc A Klygin,I Smirnova; Zh.Neorg.Khim.,4,42 (1959)
1959LLa N Li,A Lindenbaum,J White; J.Inorg.Nucl.Chem.,12,122 (1959)
1959MZa A Moskvin,F Zakharova; Zh.Neorg.Khim.,4,975 (2151) (1959)
1959PTa B Ptitsyn,E Tekster; Zh.Neorg.Khim.,4,1024 (2248) (1959)
1959RGa C Richard,R Gustafson,A Martell; J.Am.Chem.Soc.,81,1033 (1959)
1959SHa J Sullivan,J Hindman; J.Phys.Chem.,63,1332 (1959)

1959SIa T Siddall; J.Am.Chem.Soc.,81,4176 (1959)
1959SMa T Smith; J.Inorg.Nucl.Chem.,11,314 (1959)
1959SSa V Shevchenko,I Slepchenko,V Shmidt et al; Atomnaya Energiya,7,236 (1959)
1959TPa S Tripathi,S Prakash; J.Indian Chem.Soc.,36,19 (1959)
1959TVa E Takster,L Vinogradova,B Ptitsyn; Zh.Neorg.Khim.,4,347 (764) (1959)
1959VNa V Voden,G Nikitina,M Pushlenkov; Radiokhim.,1,121 (1959)
1959VSa V Vdovenko,E Smirnova; Radiokhim.,1,43 (1959)
1958ALa K Allen; J.Am.Chem.Soc.,80,4133 (1958)
1958BAa C Baes; Personal communication (1958)
1958BRb S Brusilovskii; Dokl.Akad.Nauk SSSR,120,305 (1958)
1958COa J Codding; US AEC - IDO,14454 (1958)
1958FOa B Fontana; US AEC - Report TID,5290,279;289 (1958)
1958GPa A Gurevich,L Preobrazhenskaya; Zh.Neorg.Khim.,3,2512 (1958)
1958GRd R Gustafson,C Richard,A Martell; Prog.Rep.US Atom.En.Comm.Con.At30-1-1823 (1958)
1958GTa K Gayer,L Thompson,O Zajicek; Can.J.Chem.,36,1268;1649 (1958)
1958HMa J Howland,L Magnusson; US AEC - Report TID,5290,696 (1958)
1958IOa E Iwase,Y Oyama,T Isono,K Yamaguchi; Report Sci.Res.Inst.(Japan),34,276 (1958)
1958JEb B Jezowska-Trzebiatowska et al; Int.Conf.At.Energy,Geneva,28,253 (1958)
1958KKa A Klygin,N Kolyada; Zh.Neorg.Khim.,3,12,223 (2767) (1958)
1958LDa N Li,E Doody,J White; J.Am.Chem.Soc.,80,5901 (1958)
1958MDa A Mukherji,A Dey; J.Inorg.Nucl.Chem.,6,314 & others (1958)
1957BDb W Bale,E Davies,D Morgan,C Monk; Trans.Faraday Society,24,94 (1957)
1957DMa E Davies,C Monk; Trans.Faraday Society,53,442 (1957)
1957GLa E Glueckauf; Atomic Energy R.E.(C/R),1900 (1957)
1957GLb K Gayer,H Leider; Can.J.Chem.,35,5 (1957)
1957GUa A Gurevich; Trudy Rad.Inst.,6,88 (1957)
1957HSa C Hertnee,J Shamir; Bull.Soc.Chim.Fr.,1334 (1957)
1957HWa J Hearne,A White; J.Chem.Soc.,2168 (1957)
1957JAc O Jantti; Suomen Kem.,B30,136 (1957)
1957KCb E Krylov,V Chukhlantsev; Zh.Anal.Khim.,12,451 (1957)
1957LDa N Li,E Doody,J White; J.Am.Chem.Soc.,79,5859 (1957)
1957MAc H Martin-Frere; Compt.Rend.,245,848 (1957)
1957ROa A Rozen; Atomnaya Energiya,2,445 (1957)
1957THb J Thamer; J.Am.Chem.Soc.,79,4298 (1957)
1957VLa V Vdovenko,A Lipovskii,M Kuzina; Zh.Neorg.Khim.,2,970 (1957)
1956ALa S Ahrland,R Larsson,K Rosengren; Acta Chem.Scand.,10,705 (1956)
1956BCb C Blake,C Coleman,K Brown,D Hill et al; J.Am.Chem.Soc.,78,5978 (1956)
1956CSc V Chukhlantsev,A Sharova; Zh.Neorg.Khim.,1,36 (1956)
1956CSd V Chukhlantsev,S Stepanov; Zh.Neorg.Khim.,1,478 (1956)
1956DPa E Deltombe,M Pourbaix; Cebelcor Rapp.Tech.,42 (1956)
1956HIa S Hietanen; Acta Chem.Scand.,10,1531 (1956)
1956HOa B Hok-Bernstrom; Acta Chem.Scand.,10,163;174 (1956)
1956OBa E Orban,M Barnett,J Boyle et al; J.Phys.Chem.,60,413 (1956)
1956TGb I Tananaev,M Glushkova,G Seifer; Zh.Neorg.Khim.,1,66 (1956)
1956ZIa R Zingaro; J.Am.Chem.Soc.,78,3568 (1956)
1955BEa R Betts; Can.J.Chem.,33,1775 (1955)
1955DWa R Day,R Wilhite,F Hamilton; J.Am.Chem.Soc.,77,3180 (1955)
1955GLc K Gayer,H Leider; J.Am.Chem.Soc.,77,1448 (1955)

1955HOa E Holst; Diss.Pennsylvania State College (1955)
1955IFc R Izatt,W Fernelius,B Block; J.Phys.Chem.,59,80 (1955)
1955KNa K Kraus,F Nelson; J.Am.Chem.Soc.,77,1391;3721;3972 (1955)
1955KTa N Komar,Z Tretyak; Zh.Anal.Khim.,10,236 (1955)
1955MAa Y Marcus; Diss.Hebrew University,Jerusalem (1955)
1955MBd K McClaine,E Bullwinkel,J Huggins; Proc.Int.Conf.Geneva.,8,26 (1955)
1955PAb V Paramonova; Vestnik Leningr.Univ.,22,57 (1955)
1955RYa J Rydberg; Ark.Kemi.,8,113 (1955)
1955RYb J Rydberg; Svensk Kem.Tidskr.,67,499 (1955)
1954AHa S Ahrland,S Hietanen,L Sillen; Acta Chem.Scand.,8,1907 (1954)
1954ALa S Ahrland,R Larsson; Acta Chem.Scand.,8,137 (1954)
1954ALb S Ahrland,R Larsson; Acta Chem.Scand.,8,354 (1954)
1954BBb R Brown,W Bunger,W Marshall,C Secoy; J.Am.Chem.Soc.,76,1532;1580 (1954)
1954BFa B Bryant,W Fernelius; J.Am.Chem.Soc.,67,5351 (1954)
1954BRc B Bryant; J.Phys.Chem.,58,573 (1954)
1954BUa E Bullwinkel; US AEC - RMO,2614 (1954)
1954DPa R Day,R Powers; J.Am.Chem.Soc.,76,3895 (1954)
1954FAa J Faucherre; Bull.Soc.Chim.Fr.,128;253 (1954)
1954IRa H Irving,H Rossotti; J.Chem.Soc.,2910;3494 (1954)
1954JKa J Johnson,K Kraus,T Young; J.Am.Chem.Soc.,76,1436 (1954)
1953CSb A Chakraburtty,D Sen,P Ray; J.Indian Chem.Soc.,30,491 (1953)
1953SBa J Schreyer,C Baes; ORNL-Y-12,ORNL-1578 (1953)
1953WDa R Whiteker,N Davidson; J.Am.Chem.Soc.,75,33081 (1953)
1952JKa J Johnson,K Kraus; J.Am.Chem.Soc.,74,4436 (1952)
1952LAb W Latimer; "Oxidation Potentials",Prentice Hall,NY (1952)
1951AHa S Ahrland; Acta Chem.Scand.,5,199;1151;1271 (1951)
1951BLa C Blake,R Lowrie,K Brown; US AEC - D,3212 (1951)
1951NKa F Nelson,K Kraus; J.Am.Chem.Soc.,73,2157 (1951)
1950BLb R Betts,R Leigh; Can.J.Res.,28,B514 (1950)
1950KNa K Kraus,F Nelson; J.Am.Chem.Soc.,72,3901 (1950)
1950MKb G Moore,K Kraus; ORNL-795 (1950)
1949AHa S Ahrland; Acta Chem.Scand.,3,374;783;1067 (1949)
1949BMa R Betts,R Michels; J.Chem.Soc.,286;5286 (1949)
1949FAa R Foley,R Anderson; J.Am.Chem.Soc.,71,909 (1949)
1949KHa E Kritchevsky,J Hindman; J.Am.Chem.Soc.,71,2096 (1949)
1949KNa K Kraus,F Nelson,G Johnson; J.Am.Chem.Soc.,71,2510;2517 (1949)
1949KOa D Kern,E Orlemann; J.Am.Chem.Soc.,71,2102 (1949)
1949SUa J Sutton; J.Chem.Soc.,275 (1949)
1947GUb H Guiter; Bull.Soc.Chim.Fr.,64 (1947)
1947HKa W Harris,I Kolthoff; J.Am.Chem.Soc.,169,446 (1947)
1947MLa D MacInnes,L Longsworth; US AEC - MDDC,911 (1947)
1942HEa L Heidt; J.Phys.Chem., 46,624 (1942)
1934LAa R Lawrence; J.Am.Chem.Soc., 56,776 (1934)
1910TIa N Titlestad; Z.Phys.Chem.,72,257 (1910)
1908LMa R Luther,A Michie; Z.Elektrochem.,14,826 (1908)

EXPLANATORY NOTES

DATA Flags are :-

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

EVALUATION Flags are :-

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

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