

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				1969M0c (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 1969M0c (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 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 1969M0c (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 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 1969M0c (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 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 K(U+HL)=0.6 1972BGb (6011) 36

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(A1+++)= -0.55. Spectrophotometry 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   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 NaCl04 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

P04--- 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+HP04)=12

K(U+2HP04)=22

K(U+3HP04)=31

K(U+4HP04)=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

P207---- H4L Pyrophosphate CAS 2466-09-3 (198)

Diphosphate; from (HO)2PO.O.PO(OH)2

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

U++++ sol NaCl04 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 K3=0.23	1954ALa (15313)	94

S04-- 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			*K1=2.3 *B2=3.9	1969RPb (16617)	97
U++++	dis	oth/un	25°C	2.0M	U			*K1=2.02 *K2=0.9	1969VAa (16618)	98
Medium: HClO4										
U++++	kin	NaClO4	25°C	1.0M	U			*K1=2.20	1966S0b (16619)	99
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	1961S0e (16622)	102
U++++	dis	NaClO4	25°C	3.0M	U	T H		*K1=2.52 *K2=1.35	1955DWa (16623)	103
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

W04-- 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 + 4HW6021(5-) = 3UW8028(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 NaCl04 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 NaCl04 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(UC12+HL)=1.95

K(UC1+2L)=3.84

Medium: EtOH

C6H604 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

C6H807 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 NaCl04 20°C 0.10M U 1960ASa (46294) 120

K(U(OH)2+L)=13.5

C6H1004 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

C6H11N05 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

C6H13N02 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 1976NFa (50114) 123

B3=15.6

C7H7N02 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 NaCl04 25°C 0.01M U K1=9.89 B2=18.00 1966BBf (55518) 124

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	NaCl04	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-Arsenophenylazo)-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'-arsenophenylazo)chromotropic acid;										

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
U++++	sp	oth/un	RT	6.0M	U			K1eff=6.12 B2eff=12.04	1997RRc (101654)	147

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 B(UO2HL)=15.48 B(UO2H2L2)=30.32 B(UO2H-1L)=5.77 B(UO2H-2L)=-2.62	1999ADd (106078)	149

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			K1eff=6.93 K2eff=5.04	1980LVa (107865)	150

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			K1eff=6.64 K2eff=4.94	1980LVa (108183)	151

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 from 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

$K(3UO_2(CO_3)_3+6H=(UO_2)_3(CO_3)_6+3CO_2+3H_2O)=1.62$

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⁻¹; 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

U02++	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.									
U02++	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									
U02++	sp	NaClO4	20°C	1.0M	U	K1=-0.25	1970SWa	(5924)	219
U02++	EMF	KNO3	?	1.0M	U I	K1=-0.05	19670Mb	(5925)	220
K1=0.15(I=0.82); 0.38(I=0.54)									
U02++	EMF	none	?	0.0	U	K1=1.2	19670Mb	(5926)	221
U02++	ix	none	25°C	0.0	U	K1=-0.1 K3=-1.70	B2=-0.9	1964PCa	(5927) 222
U02++	oth	KNO3	-3°C	sat	U	K1=0.26	1962FCa	(5928)	223
Method: freezing point									
U02++	ix	NaClO4	32°C	1.0M	U	K1=0.3	1961BTa	(5929)	224
U02++	sp	alc/w	25°C	50%	U	K1=1.24	1961MMc	(5930)	225
Medium: 50% EtOH, I=0 corr									
U02++	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									
U02++	sp	none	25°C	0.0	U	K1=0.22	1957BDb	(5932)	227
U02++	sp	none	25°C	0.0	U	K1=0.21	1957DMa	(5933)	228
U02++	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									
U02++	EMF	NaClO4	20°C	1.0M	U	K1=-0.10	1951AHa	(5935)	230
Method: quinhydrone electrode. By spectrophotometry K1=-0.30 ?									
U02++	gl	none	25°C	0.0	U	K1=0.38	1951NKa	(5936)	231

C102-		HL		Chlorite		CAS 13898-47-0	(6143)		
Chlorite;									
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
U02++	sp	NaClO4	25°C	1.0M	U		K1=>-1.7	1964GKa	(6012) 232
U02++	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 1964VJa (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

U02++ dis NaClO4 25°C 2.00M U K1=1.56 1976PRa (7300) 243

U02++ 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

U02++ 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

U02++ EMF NaClO4 25°C 4.0M U 1969GVa (7303) 246
K(UO2+HF=UO2F+H)=1.5

U02++ nmr oth/un 20°C 0.50M U K1=4.65 1969Vsa (7304) 247
Method: nmr

U02++ 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

U02++ 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

U02++ 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

U02++ sp NaClO4 25°C 0.65M U 1961CPc (7308) 251
K(UO2+HF=UO2F+H)=1.18

U02++ sp none 20°C 0.0 U K1=4.77 1961KUa (7309) 252

U02++ con non-aq -5°C 100% U 1960NVa (7310) 253
K(UO2F2+4HF=UF6+2H2O)=-3.95

Medium: liquid HF

U02++ EMF NaClO4 20°C 1.0M U K1=4.54 B2=7.88 1956Ala (7311) 254
K3=2.57
K4=1.34

U02++ 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 1954DPa (7314) 257
*K1=1.42
*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 1954JKa (7315) 258
K(2UO2F2=(UO2F2)2)=0.85
By centrifuge, in UO2F2. K=0.42(0 C)

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

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

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

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

I03- 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 1959KSb (8572) 264
K3=0.94
K(UO2L2(s)=UO2L2)=-4.28
K(UO2L2(s)+L=UO2L3)=-3.34
Kso(UO2L2)=-0.71

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

I04- 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 1975HUa (8617) 265
Keff=2.079
Keff=K(UO2+I04+2H2O=UO2I06+4H), pH 2.2. Also 1.95 (pH 1.6), 1.08 (pH 1.1)

UO2++ sp oth/un 18°C 0.50M U 1971HUa (8618) 266
K(UO2+L+2H2O=UO2I06+4H)=1.5

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

$K_s(\text{UO}_2\text{L}'_2(\text{H}_2\text{O})_3(\text{s})=\text{UO}_2\text{L}'_2+3\text{H}_2\text{O})=-3.39$, $K(\text{UO}_2+\text{L}=\text{UO}_2\text{L}'+\text{L})=-1.15$,
 $K(\text{UO}_2\text{L}'_2+\text{L}=\text{HO}_2\text{L}'_3+\text{H})=-7.38$. $\text{L}'=\text{NH}_2\text{O}-$

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

$K(\text{UO}_2\text{A}+\text{L})=2.49$

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

$K(\text{UO}_2+2\text{L}+\text{HL})=-1.7$

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

$K_1=-0.70(I=0.82)$, $-0.43(I=0.54)$

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

Medium:MeOH. $K_2=3.45(\text{MeOH}+2\text{H}_2\text{O})$, $3.21(\text{MeOH}+6\text{H}_2\text{O}/\text{UO}_2)$

In EtOH: $K_2=4.47$, $4.25(\text{EtOH}+2\text{H}_2\text{O})$, $4.16(\text{EtOH}+6\text{H}_2\text{O}/\text{UO}_2)$

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

Medium acetone. In MeCOEt: $K_2=6.02$; in i-BuCOMe: $K_2=6.39$

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

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(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
 *K_s(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
 K_{s4}=-9.47
 Data for 100-300 C at 50 MPa H₂. K_{s4}: 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+)2UO22(?))=-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 19680Ca (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 1964C0c (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 1963DH a (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 1963HR a (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 1963PS b (12416) 346

*K₁=-4.59

UO₂⁺⁺ gl NaClO₄ 25°C 1.0M U 1963RJ a (12417) 347

*B(2,2)=-5.94

*B(3,5)=-16.41

UO₂⁺⁺ gl KNO₃ 25°C 0.50M U T H 1962BM b (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 1962NP a (12419) 349

*B(2,2)=-6.1

UO₂⁺⁺ ix NaNO₃ ? 0.50M U 1962NP a (12420) 350

*B(3,5)=-16

UO₂⁺⁺ sol oth/un 25°C dil U 1962PP a (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 196000a (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

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(U308)=-3.55
 *B(m,n): K(mM+nH2O=Mm(OH)n+nH); *K(U307(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; -0.0-

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sp	NaClO4	RT	0.70M	C		K1=31.95 K1eff=5.30 (pH 5.0)	1992DBa (12723)	380

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		1968G0a (12725)	382
-------	----	--------	---	-----	---	---	--	-----------------	-----

K(UO2+3H2L=6H+UO2L3)=-38.4
 B3=71.7

Equilibrium constants for mixed UO₂-L-citrate complexes

UO ₂ ++	sp	oth/un	?	var	U	M	1968GPe (12726)	383
							K=-3.77	
							K'=-1.15	
							K"=-16	
							K((UO ₂) ₂ YL(OH)+H)=8	
H ₄ Y=EDTA. K: (UO ₂) ₂ Y+H ₂ L=2H+(UO ₂) ₂ YL; K': 2UO ₂ Y+H ₂ L=2H+(UO ₂) ₂ Y ₂ L; K": (UO ₂) ₂ Y ₂ L+H ₂ L=2H+(UO ₂) ₂ YL ₂ +Y								
UO ₂ ++	sp	oth/un	?	var	U	M	1968GSg (12727)	384
							B ₃ =72.95	
Equilibrium constants given for reactions involving (UO ₂) ₂ LF ₅ , (UO ₂) ₂ L ₂ F ₅ and (UO ₂) ₂ L ₃ F ₂								
UO ₂ ++	sol	oth/un	?	var	U		K ₁ =32.04 B ₂ =60.15 1968M0c (12728)	385
							K _s (UO ₂ L(H ₂ O) ₄ (s)+2H)=-2.0	
Other solubilities also given								
UO ₂ ++	sp	oth/un	?	1.0M	U		1965MAb (12729)	386
							K(UO ₂ L ₃ +H)=11.06	
							K=-18.4	
Medium: LiCl. K: 2HUO ₂ L ₃ +4H ₂ O=(UO ₂) ₂ L ₃ +3H ₂ L+4OH								
UO ₂ ++	sp	KCl	?	1.0M	U	M	1965SMa (12730)	387
							K=-11.1	
K: UO ₂ (CO ₃) ₃ +H ₂ L+2OH=UO ₂ L(CO ₃) ₂ +CO ₃ +2H ₂ O								
UO ₂ ++	sol	none	25°C	0.0	U		1964PCa (12731)	388
							K(UO ₂ L(s)+H=UO ₂ LH)=-1.44	
							K(UO ₂ L(s)+2H=UOL+H ₂ O)=0.18	
							K(UO ₂ L(s)+OH=UO ₂ LOH)=-1.96	
							K(UO ₂ L(s)+2OH=UO ₃ L+H ₂ O)=-0.05	
UO ₂ ++	gl	oth/un	?	var	U		1960GPa (12732)	389
							K(UO ₂ L ₃ +H)=ca.12.5	
UO ₂ ++	sol	oth/un	20°C	?	U		1960MAa (12733)	390
K(UO ₂ L(H ₂ O) ₄ (s)+2H=UO ₂ +H ₂ L+4H ₂ O)=-2.86								
UO ₂ ++	sol	oth/un	78°C	var	U	T	1959GJa (12734)	391
							K(UO ₂ L(s)=UO ₂ L)=-4.0	
							K(UO ₂ L(s)+2H=UO ₂ +H ₂ L)=-1.44	
K(UO ₂ L(s)+2H=UO ₂ +H ₂ L)=-1.44(78-114 C)								
UO ₂ ++	sp	KNO ₃	?	0.4M	U	I M	1959K0b (12735)	392
K(UO ₂ (CO ₃) ₃ +H ₂ L=UO ₂ (CO ₃) ₂ HL+HCO ₃)=2.0. At I=0 corr. K=2.2								
UO ₂ ++	sp	oth/un	0°C	var	U	M	1959KPb (12736)	393
							K(UO ₂ (CO ₃) ₂ L+H)=10.6	

 UO2++ sp oth/un ? var U 1958GPa (12737) 394
 $K(2UO_2+2H_2L+H_2O=H_2U_2O_5L_2)=-2.7$
 $K(HU_2O_5L_2+H)=ca.7$
 $K(U_2O_5L_2+H)=ca.10$

UO2++ sp oth/un 0°C var U 1958GPa (12738) 395
 $K(UO_2L_3+H)=12.3$

UO2++ gl none 25°C 0.0 U 1958GTa (12739) 396
 $K_s(UO_2L(s)+H=UO_2LH)=-1.44?$
 $K_s(UO_2L(s)+OH=UO_2LOH)=-1.96?$

I=0 corr. Complexes may be polymers

UO2++ sp oth/un ? var U 1957MAc (12740) 397
 $K_{1eff}=4.71$

Medium: 0.05-1.5 M Na2CO3

P04--- 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		$K(UO_2A+H_2L)=4.15$	1992RSa (13357)	398
-------	-----	--------	---	------	---	---	--	----------------------	-----------------	-----

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

UO2++	sol	NaClO4	25°C	0.50M	C			$K_1=11.29$ $K(UO_2+HL)=11.29$ $K_{so}((UO_2)_3L_2)=-48.48$	1992SBa (13358)	399
-------	-----	--------	------	-------	---	--	--	---	-----------------	-----

Also extrapolated values to I=0

UO2++	dis	NaClO4	25°C	1.00M	U	TIH		$K(UO_2+H_2L)=2.94$ $K(UO_2+2H_2L)=4.93$	1991MAb (13359)	400
-------	-----	--------	------	-------	---	-----	--	---	-----------------	-----

$DH(UO_2+H_2L)=8.0$ kJ mol⁻¹, $DS=84$ J K⁻¹ mol⁻¹; $DH(UO_2+2H_2L)=16.3$; $DS=151$
 at 1.0 M NaClO4, 25 C

UO2++	sp	NaClO4	20°C	0.05M	C			$K_1=3.26$	1989RAB (13360)	401
-------	----	--------	------	-------	---	--	--	------------	-----------------	-----

Medium: 0.05 M NaClO4/HClO4.

UO2++	dis	oth/un	25°C	0.20M	C			$K(UO_2+H_3L=(UO_2)H_2L+H)=1.70$ $K(UO_2+2H_3L=UO_2(H_2L)_2+2H)=1.40$ $K(UO_2+2H_3L=UO_2(H_2L)H_3L+H)=1.78$	1987EBa (13361)	402
-------	-----	--------	------	-------	---	--	--	---	-----------------	-----

Medium: HClO4/H3PO4. Distribution of 230U and 233U into benzene/HDEHP.
 $K(UO_2+3H_3L=UO_2(H_2L)(H_3L)_2+H)=3.57$; $K(UO_2+3H_3L=UO_2(H_2L)_3+3H)=2.04$

UO2++	sol	none	25°C	0.0	U			$K(UO_2+H_3L=UO_2H_2L+H)=1.50$	1983MPa (13362)	403
-------	-----	------	------	-----	---	--	--	--------------------------------	-----------------	-----

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 1969M0c (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

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

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

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

S03-- 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 1967Z0c (15481) 427
By spec., 0.1 NH4ClO4: K1=6.01

UO2++ sol NaCl 23°C 1.0M U K1=5.26? B2=9.17 1967Z0c (15482) 428

UO2++ sol oth/un ? 2.0M U 1967Z0d (15483) 429
B3(K3?)=1.01

UO2++ sol oth/un 25°C var U B2=7.10 1959KKb (15484) 430
Kso(UO2L)=-8.59

S04-- 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
K_s((NH₄)₂UO₂L₂(s)+L)=-0.97
Medium: NH₄NO₃. K_s: (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. $K1=2.72+(0.02939(t-25)+0.000323(T-25)^2)\log(e)$ etc. $DH(K1)=20 \text{ kJ mol}^{-1}(25 \text{ C})$ to $263(250 \text{ C})$

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. $DH(K1)=9.6 \text{ kJ mol}^{-1}$, $DS=67$;
 $DH(K2)=-4$, $DS=8$

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		Kso(UO2L)=-3.4	1960KKb (16911)	462
-------	-----	--------	------	-----	---	--	----------------	-----------------	-----

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		Kso(UO2L)=-10.42	1957KCb (17077)	463

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		Ks(uranophane+6H)=11.7	2000PCa (17220)	464

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		K(UO2+H2L=UO2HL+H)=-2.0	1971PWc (17223)	467
-------	----	--------	------	-------	---	--	-------------------------	-----------------	-----

V04---		H3L				Vanadate; V02(OH)3-- or polymers	CAS 15457-75-7	(1586)	
--------	--	-----	--	--	--	----------------------------------	----------------	--------	--

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
UO2++	sol	oth/un	25°C	dil	U		Ks=-13.7	1962HGa (17394)	468

Ks:(K2(UO2)2H-4(HL)2(H2O)3) carnotite

CH2O2		HL				Formic acid	CAS 64-18-6	(37)	
-------	--	----	--	--	--	-------------	-------------	------	--

Methanoic acid; H.COOH

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 2002HSa (19117) 479
B3=13.8
B(2,3)=18.5
B(2,5)=28.5

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 2000FIa (19118) 480
B3=14.9

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 2000VCa (19119) 481
B3=14.0

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 1985VSb (19121) 483
B(UO2AL)=7.24
K(UO2A+L)=2.11
K(UO2L+A)=2.76

H2A=phthalic acid

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

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+S03)=4.38
K(UO2LS03+S03)=3.35 (spect.)

Medium : NH4Cl. I=2.5 M, K(UO2L+S03)=4.54, K(UO2LS03+S03)=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 B2= 4.37 2002JRa (20209) 501
B3=6.86

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.

UO2++ gl NaClO4 25°C 1.0M C M K1=2.12 B2= 3.77 1999ASa (20210) 502
K3=1.29

K(UO2+L+F)=6.66
K(UO2+L+2F)=9.63
K(UO2+L+3F)=11.70

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

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.

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

UO2++ vlt KCl 30°C 0.50M C K1=2.83 B2= 5.17 1982CKb (20213) 505
Method: polarography.

UO2++ gl NaClO4 25°C 1.00M C H K1=2.457 B2=4.38 1974PBa (20214) 506
B3=6.518

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

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

UO2++ oth oth/un ? ? U B3=5.61 1967MBa (20216) 508

Method: paper electrophoresis

UO2++ sp NaClO4 20°C 1.0M U K1=2.40 B2=4.43 1967MNd (20217) 509
K3=1.95

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

U02++ gl NaClO4 31°C 0.10M U M K1=2.93 B2=5.15 1977SSb (20644) 520
B(U02L(Ala))=12.01
K(ML2+M(Ala)2=2ML(Ala))=3.54

U02++ 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

U02++ gl NaClO4 31°C 0.10M U M 1976SSa (20646) 522
B((U02)L(glycollate))=6.62

U02++ gl NaClO4 20°C 1.00M C T K1=2.38 B2=3.95 1974MTa (20647) 523
B3=5.18

U02++ gl KCl 30°C 0.10M U K1=2.97 B2=5.37 1962CTb (20648) 524

U02++ 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

U02++ nmr NaClO4 25°C 1.0M C M B2=13.0 2000SGa (21739) 526
B(U02LF3)=13.80

Method: 19F nmr.

U02++ gl NaClO4 25°C 1.00M C K1=9.43 B2=17.55 1994LSa (21740) 527

U02++ 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

U02++ oth NaClO4 35°C 0.10M C K1=7.88 1983PYa (21742) 529
B3=18.93

Method: paper electrophoresis.

U02++ vlt KCl 30°C 0.50M C K1=1.58 1982CKb (21743) 530
Method: polarography.

U02++ vlt NaClO4 30°C 0.10M U T 1979RRa (21744) 531
K(U02+2HL)=2.14

U02++ gl NaClO4 31°C 0.10M U M K1=7.53 B2=14.68 1977SSb (21745) 532
B(U02L(Malonate))=12.06
B(U02L(Diglycolate))=11.71
B(U02L(Maleate))=12.67
B(U02L(Glycolate))=11.11

B((U02)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.S0

 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(P03H2)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.S03H

 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 Et4NC104. 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) 548
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.

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

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

U02++ gl NaCl04 31°C 0.10M C M 1975BSa (24079) 553
 B((U02)LA)=6.94
 K(U02L2+U02A=U02LA+U02L)=1.88
 K(U02L+A)=4.79
 K(U02A+L)=2.46

H2A=succinic acid

U02++ gl NaCl04 31°C 0.10M C M 1975BSa (24080) 554
 B((U02)LA)=7.28
 K(U02L2+U02A=U02LA+U02L)=2.61
 K(U02L+A)=5.13
 K(U02A+L)=3.20

H2A=adipic acid

U02++ gl NaCl04 31°C 0.10M C M 1975BSa (24081) 555
 B((U02)LA)=6.69
 K(U02L2+U02A=U02LA+U02L)=2.39
 K(U02L+A)=4.54
 K(U02A+L)=2.98

H3A=thiomalic acid

U02++ sp NaCl04 30°C 0.10M U K1=2.71 B2=5.33 1969RRa (24082) 556

U02++ gl NaCl04 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
 U02++ gl NaCl04 25°C 0.10M M M K1=5.56 1987Nca (24575) 558
 K(U02(nta)+L)=4.29

U02++ gl NaCl04 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.

U02++ gl KNO3 25°C 0.20M U T 1985KMc (24577) 560
 K(U02A+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

U02++ gl NaCl04 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 NaCl04.
 In 40% dioxane/H2O, K1=7.41, K2=5.50.

U02++ gl NaCl04 25°C 1.00M U K1=5.42 B2=9.48 1977Bna (24579) 562

U02++ gl NaCl04 31°C 0.10M U M K1=5.20 B2=9.21 1977SSb (24580) 563
 B(U02L(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

U02++ vlt KCl 30°C 0.50M C K1=2.85 B2= 5.20 1982CKb (25064) 574
B3=7.20

Method: polarography.

U02++ 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

U02++ 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

U02++ 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

U02++ 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

U02++ 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

U02++ 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

U02++ gl NaClO4 31°C 0.10M U K1=3.03 1968RSa (25071) 581

U02++ 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 1962H0a (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++ 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 Glycocyanine 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.OP(=O)(OH)2

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

C3H11N06P2 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

C4H4N2O5 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 K(?)=4.6 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
 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

 UO2++ gl KNO3 25°C 0.10M U M K1=4.80 1985VSb (29147) 635
 B(UO2LA)=9.05
 K(UO2A+L)=3.92
 K(UO2L+A)=4.25
 H2A=phthalic acid

 UO2++ gl NaClO4 31°C 0.10M U M K1=5.20 1977SSb (29148) 636
 B(UO2L(Ala))=13.30

 UO2++ gl NaClO4 31°C 0.10M U M 1976SSa (29149) 637
 B((UO2)L(glycollate))=8.31

 UO2++ gl NaClO4 31°C 0.10M U M 1976SSa (29150) 638
 B((UO2)L(malonate))=8.13

 UO2++ EMF NaClO4 31°C 0.10M U 1974BSa (29151) 639
 B((UO2)L(succinate))=8.42
 B((UO2)L(glutarate))=8.27
 B((UO2)L(adipate))=8.01
 B((UO2)L(thiomalate))=8.7

 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

 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 K(UO2A+L)=3.80 1985KMc (30061) 655

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 K(UO2+L+HA)=7.67 1971RBc (30066) 660
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 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 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.

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.

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.

UO2++	oth	oth/un	40°C	0.10M	U	M			1981YSa (31383)	700
-------	-----	--------	------	-------	---	---	--	--	-----------------	-----

B((UO2)2L2(NTA)2)=-3.56
Method: paper electrophoresis

UO2++	dis	oth/un	25°C	?	U				1972MKc (31384)	701
-------	-----	--------	------	---	---	--	--	--	-----------------	-----

K(2UO2L=(UO2)2L2)=5.7
K(UO2+H2L=UO2H-1L+3H)=-6.85

UO2++	dis	oth/un	25°C	?	U				1970AKa (31385)	702
-------	-----	--------	------	---	---	--	--	--	-----------------	-----

see comment
K(2UO2L=(UO2L)2)=6.7
K'(InL2+0.5(UO2L)2=InUO2L2+L)=1.49, conditional constant

UO2++	gl	KNO3	25°C	1.0M	U				1964PCa (31386)	703
-------	----	------	------	------	---	--	--	--	-----------------	-----

K(UO2+H2L=UO2H-1L+3H)=-5.62
K(2UO2H-1L=(UO2)2H-2L2)=3.24

UO2++	gl	KNO3	25°C	1.0M	U				1964RMb (31387)	704
-------	----	------	------	------	---	--	--	--	-----------------	-----

K(UO2+L=UO2H-1L+H)=0.75
K(UO2+H2L=UO2H-1L+3H)=-5.62

$K((UO_2)_2(H-1L)_2(OH)+H)=5.26$
 $K((UO_2)_3(H-1L)_3(OH)_2+4H)=17.91$

$K(2UO_2+2H_2L=(UO_2)_2(H-1L)_2+6H)=-8.00$

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-Acetyl glycine; 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

U02++ gl NaClO4 30°C 0.10M U M K1=8.71 1978SJa (31965) 715

U02++ EMF oth/un 25°C 0.50M U K1=8.40 1973SKb (31966) 716

U02++ sp oth/un 25°C 0.50M U K1=8.62 1973SKb (31967) 717

U02++ gl NaClO4 30°C 0.10M U T K1=8.34 1971TMc (31968) 718
K1(40 C)=8.93; K1(50 C)=10.40

U02++ gl KNO3 25°C 0.20M U K(U02+HL)=2.61 1963FKa (31969) 719

U02++ 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

U02++ gl NaClO4 25°C 0.20M U K1=13.00 1986SLb (32384) 721

U02++ gl NaClO4 25°C 3.0M C K1=9.63 1984BLb (32385) 722
B((U02)H2L2)=23.8

U02++ gl KNO3 25°C 0.10M U K1=8.73 B2=17.28 1982NBa (32386) 723

U02++ gl NaClO4 25°C 1.00M U H K1=8.78 1980BTa (32387) 724
B((U02)HL)=11.19
B((U02)HL2)=19.81
B((U02)H2L2)=22.50
DH(K1)=-2.2 kJ mol⁻¹, DH((U02)HL)=-30.9, DH((U02)HL2)=-50.0, DH((U02)H2L2)=-52.0. Alternative method: Calorimetry.

U02++ gl NaClO4 20°C 1.00M U K1=8.66 1973CBc (32388) 725

U02++ vlt NaClO4 30°C 0.15M U K(U02+2HL)=3.92 1967LCa (32389) 726

U02++ 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

U02++ 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

C4H10O2S2 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

U02++ gl KNO3 20°C 0.25M U I K1=8.00 B2=15.20 1973MSd (35140) 772
0.25 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

U02++ 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

U02++ sp non-aq 25°C 100% U M 1976DBa (36029) 774

K((U02A2)2+2L=2U02A2L2)=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

U02++ 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

U02++ 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

U02++ sp non-aq 25°C 100% U M 1976DBa (36689) 777

K((U02A2)2+2L=2U02A2L)=-1.66

HA=tropolone. Medium: benzene

C5H5NOS (4389)

2-Mercaptopyridine N-oxide;

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

U02++ 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

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

U02++ EMF oth/un ? ? U K1=10.45 1970FMb (38653) 808

U02++ 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

U02++ 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.

U02++ 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

U02++ sp NaClO4 25°C 0.1M C 2004GZa (39133) 812
K(U02+H+L)=7.78
For 0.3 mol/L NaClO4 K(U02+H+L)=7.25; K(U02+2H+L)=10.51
For 0.7 mol/L NaClO4 K(U02+H+L)=7.6.95; K(U02+2H+L)=9.79

U02++ gl NaNO3 25°C 1.10M U M K1=8.53 1995ADc (39134) 813
K(U02+Hegta+HL)=7.95
K(U02(Hegta)L+H)=5.99
K(U02(egta)L+H)=8.72

U02++ gl NaClO4 30°C 0.10M M M 1995JSa (39135) 814
K(U02+2HL)=5.19
K(U02+HL)=2.90
B(U02AL)=11.45
B(U02CL)=9.89
K(U02+2HL) by polarography. B(U02DL)=8.80, B(U02EL)=6.00. H2A is
oxalic acid, H2C is malonic acid, H2D is succinic acid, H2E is lactic acid

U02++ gl NaClO4 25°C 0.10M C K1=8.25 1982PMa (39136) 815
B(U02HL)=12.40

U02++ vlt NaClO4 25°C 0.10M C K1=3.10 1980SKd (39137) 816
Method: polarography.

U02++ gl NaClO4 30°C 0.10M U M K1=8.43 1978SJa (39138) 817

U02++ gl KNO3 25°C 0.10M U K1=8.25 B2=14.75 1976GPd (39139) 818

UO2++ g1 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++ g1 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++ g1 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++ g1 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++ g1 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

U02++ 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

U02++ oth NaClO4 35°C 0.10M U M K1=8.02 B2=14.53 1984SYa (40765) 827

B(U02(NTA)+L)=5.18

Method: paper electrophoresis

U02++ vlt KCl 30°C 0.50M C K1=1.55 1982CKb (40766) 828

Method: polarography.

U02++ gl KNO3 25°C 0.10M U K1=7.10 B2=14.72 1982NMa (40767) 829

U02++ gl NaClO4 30°C 0.10M U T 1980RRa (40768) 830

K(U02+HL)=2.01

U02++ 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

U02++ gl KNO3 25°C 0.10M C K1=7.10 B2=14.72 1983NMb (40898) 832

U02++ 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

U02++ gl KNO3 25°C 0.10M U K1=6.41 B2=13.38 1982NMa (41129) 834

U02++ gl NaClO4 30°C 0.10M U K1=7.65 B2=13.95 1973RSa (41130) 835

U02++ 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

U02++ 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 backgroundf 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)

Nicotinyhydroxamic 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

U02++ sp oth/un ? 0.0 U 1963SGb (43859) 858
 K(U02L+H2L=U02L2+2H)=-10.5
 K(U02L+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

U02++ gl NaClO4 25°C 0.20M U M K1=9.66 1986SLb (43890) 859
 K(U02(ida)+L)=8.96
 K(U02(nta)+L)=8.64
 K(U02(edta)+L)=6.71

 U02++ gl KNO3 20°C 0.10M U K1=16.9 1966BRc (43891) 860

U02++ sp oth/un ? ? U 1966GSb (43892) 861
 K(U02+HL)=6.0

 U02++ gl KNO3 20°C 0.10M U 1965BSd (43893) 862
 K(U02+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

U02++ 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

U02++ sp oth/un 25°C ? U K1=27.19 1989WZa (43990) 864

 U02++ gl NaClO4 25°C 0.20M U M K1=13.81 1986SLb (43991) 865
 K(U02(ida)+L)=13.55
 K(U02(nta)+L)=12.85
 K(U02(edta)+L)=10.31

 U02++ gl KNO3 25°C 0.10M U 1965BAb (43992) 866

K(2U02+H3L=(U02)2L+3H)=-6.84
 K(U02L+H3L=U02H2L2+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)
Benzeneearsonic 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			19690Ca (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-Dihydroxybenzeneearsonic 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			19690Ca (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	NaCl04	25°C	0.10M	U				1969SHc (45664)	892

K(UO2+H2L=UO2LH+H)=-1.69

K(UO2LH+H2L=UO2(LH)2+2H)=-3.07

$K(UO_2LH=UO_2LH(OH)_2+2H)=-10.92$

$K(UO_2(LH)_2=UO_2(LH)_2OH+H)=-5.08$

$K(UO_2+LH+2OH)=19.4$

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.

UO2++ gl NaClO4 30°C 0.10M U I K1=4.65 B2=8.06 1983ASa (45718) 894

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.

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

UO2++ ix oth/un 25°C 0.10M U 197500a (46297) 898
K(UO2+H3L)=2.79
K(UO2+H2L)=4.25
K(UO2+HL)=7.25

I=0.1(Na citrate)

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

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

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

$K(3(UO_2)_2L_2=(UO_2)_2L_2[(OH)_5(UO_2)_2L_2]_2+10H)=-47.9$

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 2003AHa (47856) 917
K((UO2)L+A)=3.99

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 1987NCa (48094) 920
K(UO2(nta)+L)=2.98

UO2++ gl KNO3 25°C 0.20M U T 1985KMc (48095) 921
K(UO2A+L)=4.10
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 1969VOb (48098) 924
K(UO2+HL)=2.38

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

U02++ gl NaCl04 30°C 0.10M U T K1=4.04 1981SJb (48195) 926
At 20 C: K1=3.99; 40 C: 4.10

U02++ gl NaCl04 30°C 0.10M U M K1=4.04 1981SJc (48196) 927
B((U02)L(malonate))=9.33
B((U02)L(succinate))=8.29
B((U02)L(itaconate))=8.53
B((U02)L(glutarate))=7.53

B(M+L+adipic acid)=7.43.

U02++ gl NaCl04 30°C 0.10M U M K1=4.04 1978SJa (48197) 928
B((U02)L(Asp))=9.76
B((U02)L(Glu))=9.49

U02++ gl KNO3 25°C 0.05M M K1=3.90 1975DPb (48198) 929

U02++ 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

U02++ gl NaCl04 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

U02++ gl NaCl04 25°C 1.00M U H K1=3.06 B2=5.22 1986BSb (48359) 932

B((U02)HL)=5.51

B((U02)HL2)=8.34

U02++ gl NaCl04 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

U02++ gl NaCl04 25°C 1.00M U B2=6.19 1990DGB (48396) 934

B((U02)H-2L2)=-2.03

B((U02)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.

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

UO2++	EMF	oth/un	25°C	0.10M	U		K1=8.60	1970FMb (50119)	948
-------	-----	--------	------	-------	---	--	---------	-----------------	-----

C6H13NO2 HL Norleucine CAS 616-06-8 (602)
2-Aminoheptanoic 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.

U02++ 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

U02++ gl NaClO4 25°C 1.00M C M K1=7.01 B2=13.36 1991DGa (50537) 953
B(U02AL)=11.43
B(U02H-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

U02++ 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

U02++ 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

U02++ 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

U02++ gl oth/un 25°C 0.10M U K1=14.9 1976MDa (51955) 957
K(U02+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
```

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

```
-----
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
-----
```

```
*****
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
*****
C7H5N04      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
*****
C7H5N04      H2L   Dipicolinic aci CAS 449-83-2 (418)
2,6-Pyridinedicarboxylic acid; C5H3N.(COOH)2
-----

```

```

Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
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
*****
C7H5N04      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
*****
C7H5N05      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
-----

```

U02++ 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

U02++ 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

U02++ 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

U02++ 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

U02++ gl NaClO4 31°C 0.10M U K1=10.81 B2=19.69 1973JKa (53348) 977

U02++ 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

U02++ 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

U02++ 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
U02++	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
U02++	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
U02++	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
U02++	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
U02++	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
U02++	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
U02++	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
-------	-----	--------	------	------	-----	-------	-------------	-----------	--------

U02++ gl NaClO4 20°C 1.00M U K1=8.18 B2=15.07 1973MBb (53698) 988

C7H602 HL Benzoic Acid CAS 65-85-0 (462)
Benzenecarboxylic acid; C6H5.COOH

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

U02++ gl NaClO4 31°C 0.10M U M 1971RBc (53860) 989
K(U02+L+A)=6.08
K(U02+L+B)=4.36
K(U02+L+HC)=5.08

HA=phenylacetic acid, HB=phenoxyacetic acid, H2C=4-hydroxybenzoic acid

U02++ gl NaClO4 31°C 0.10M U K1=2.57 1968RSa (53861) 990

U02++ gl NaClO4 31°C 0.10M U K1=2.59 1968RSg (53862) 991

C7H602S H2L Thiosalicylic CAS 147-93-3 (236)
2-Mercaptobenzoic acid; HS.C6H4.COOH

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

U02++ 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

U02++ gl diox/w 30°C 50% U K1=4.60 B2=8.50 1973RSa (53923) 993
Medium: 50% dioxan, 0.1 M NaClO4

C7H603 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

U02++ gl diox/w 30°C 50% U 1969VMa (53942) 994
K(U02+HL)=6.60
K(U02HL+HL)=5.20

Medium: 50% dioxan, 0.1 M NaClO4

C7H603 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

U02++ gl diox/w 30°C 50% U 1969VMa (53949) 995
K(U02+HL)=8.20
K(U02HL+HL)=6.85

Medium: 50% dioxan, 0.1 M NaClO4

C7H603 H2L Salicylic acid CAS 69-72-7 (14)

2-Hydroxybenzoic acid, Salicylic acid; HO.C6H4.COOH

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

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 1996SMb (54320) 997
 K1eff=2.72

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 1956HOa (54328)1005
 K(UO2+HL+H)=-0.62
 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 1971RBc (54436)1006
 K(UO2+HL+A)=5.19
 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 19680Ca (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 19680Ca (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 19680Ca (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; H03S.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.

U02++ 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

U02++ 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

U02++ gl NaNO3 25°C 0.10M M K1=7.42 B2=14.19 1996KSc (55519)1038

U02++ gl KNO3 25°C 0.10M C K1=7.49 B2=14.17 1989KUb (55520)1039

U02++ gl diox/w 37°C 30% C M K1=6.93 1983MAd (55521)1040
B(U02(bpy)L)=8.23

U02++ gl NaClO4 30°C 0.10M U K1=9.03 B2=17.94 1969DSb (55522)1041

U02++ sp NaClO4 20°C 1.0M U K1=7.72 1966MRa (55523)1042

U02++ 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

U02++ gl NaNO3 25°C 0.10M M K1=11.93 B2=17.78 1996KSc (55613)1044

U02++ gl diox/w 30°C 50% U K1=7.31 1977DJb (55614)1045

U02++ gl NaClO4 30°C 0.10M U K1=7.71 B2=14.51 1969DSb (55615)1046

U02++ 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

U02++ 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 B((UO2)HL)=8.48
 1991HKe (56718)1054
 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 19760Ma (57536)1061

C7H21N2O10P3 H6L (7004)
N-(2-Hydroxyethyl)-1,2-diaminoethane-N,N'-trimethylenephosphonic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
U02++	gl	KCl	25°C	0.10M	U			K1=10.04 K(U02+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
U02++	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
U02++	gl	NaClO4	30°C	0.10M	U			K1=3.86	1976PJa (58435)	1064
U02++	ix	KNO3	25°C	1.0M	U			K1=3.6	1973NKb (58436)	1065
U02++	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
U02++	gl	NaClO4	30°C	0.10M	U			K1=3.99	1976PJa (58447)	1067
U02++	ix	KNO3	25°C	1.0M	U			K1=3.6	1973NKb (58448)	1068
U02++	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
U02++	gl	diox/w	30°C	75%	U			K1=7.48 B2=14.45	1977AHb (58692)	1070
U02++	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
U02++	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

U02++ gl NaCl04 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

U02++ gl NaCl04 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

U02++ gl diox/w 20°C 50% U K1=8.40 B2=15.91 1954IRa (58748)1075

Medium: 50% dioxan, I=0.3 M NaCl04

C8H6N2O HL (6290)
8-Hydroxycinnoline, (2-Hydroxybenzo)pyrimidine;

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

U02++ gl diox/w 20°C 50% U K1=8.68 B2=15.84 1954IRa (58769)1076

Medium: 50% dioxan, 0.3 M NaCl04

C8H6N2O HL 8-Quinazolinol CAS 7757-02-2 (3221)
8-Hydroxyquinazoline;

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

U02++ gl diox/w 20°C 50% U K1=8.99 B2=16.69 1954IRa (58779)1077

Medium: 50% dioxan, 0.3 M NaCl04

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

U02++ gl alc/w 24°C 20% C M K1=4.96 1996MIa (59021)1078
K(U02(ada)+L)=5.19

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

U02++ gl NaCl04 25°C 0.50M C K1=4.97 1989NMa (59022)1079

U02++ 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

U02++ gl KNO3 25°C 0.20M U T 1985KMc (59024)1081

K(U02A+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

U02++ gl NaClO4 30°C 0.10M U K1=4.88 1976PJa (59025)1082

U02++ gl NaClO4 30°C 0.10M U M K1=4.78 1973KJa (59026)1083

K(U02+L+A)=7.32

K(U02+L+B)=7.63

H2A=adipic acid, H2B=succinic acid

U02++ ix KNO3 25°C 1.0M U K1=4.1 1973NKb (59027)1084

U02++ gl KNO3 25°C 1.00M U K1=4.38 1967RMc (59028)1085

U02++ gl NaClO4 31°C 0.10M U K1=4.81 1967SPe (59029)1086

U02++ 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

U02++ 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

U02++ 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

U02++ 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

U02++ gl NaClO4 31°C 0.10M U M 1971RBc (59569)1091

K(U02+L+A)=3.72

HA=phenoxyacetic acid

U02++ gl NaClO4 31°C 0.10M U K1=3.21 1968RSa (59570)1092

U02++ 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

U02++ 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-Thenoylacetone 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

U02++ 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

U02++ 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

U02++ gl KNO3 25°C 0.20M U T K(UO2A+L)=3.54
1985KMc (59883)1097

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

U02++ gl NaClO4 20°C 1.00M C T K1=2.57 B2=4.10 1974MTa (59884)1098
B3=5.32

U02++ 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 1956H0a (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 acid

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

U02++ 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

U02++ 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

U02++ 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

U02++ 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

U02++ 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

U02++ 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

U02++ 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

C8H9N3O5 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 19710Sb (61125)1125

K3=3.76

C8H12N2O3 H2L Barbitol 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

U02++ 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

U02++ 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

U02++ 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

U02++ 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

U02++ 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

U02++ 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;

K(UO2L+A)=7.67

H2A=phthalic acid

UO2++ gl diox/w 25°C 50% U K1=11.42 B2=21.09 1971CA d (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

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

U02++ 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

U02++ gl KNO3 25°C 0.10M C K1=6.77 B2=13.91 1983NMb (65983)1177

U02++ gl NaClO4 30°C 0.10M U 1980RRa (65984)1178
K(U02+HL)=1.84

U02++ EMF oth/un 25°C 0.50M U K1=6.49 1973SKb (65985)1179

U02++ sp oth/un 25°C 0.50M U K1=6.50 1973SKb (65986)1180

U02++ 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

U02++ EMF NaClO4 31°C 0.10M U K1=7.98 1977RRa (66013)1182

U02++ 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

U02++ 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

U02++ sp NaClO4 25°C 0.05M U K1=22.27 1987CDa (66476)1185
K(H2L+U02)=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-Acetoacetyl piperidine; 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.CO.OH

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-Dihydroxynonanedi amide; 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

C10H7N08S2 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

 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

 UO2++ gl diox/w 37°C 30% C M K1=3.93 1983MAd (69660)1205

B(UO2(bha)L)=8.23

bha: benzohydroxamic acid

 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-ethanediyldis(2-mercaptoactamide),
 H2B=N,N'-1,2-ethanediyldis(3-mercaptopropanamide).

C10H8N2O2S2 L (7069)
 3-Benzamidiorhodanine; 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	1990SSc	(69782)1208

K(UO2(CDTA)+L)=10.95, K(UO2(DTPA)+L)=9.83

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	1965BSd	(69867)1210

By glass electrode, 0.1 M KNO3: K1=15.5, K2=10.65, K(UO2+HL)=5.6,
 K(UO2L+HL)=4.2

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	1990SSc	(69978)1212

K(UO2(CDTA)+L)=13.90, K(UO2(DTPA)+L)=13.27

UO2++	gl	NaClO4	25°C	0.10M	U			K1=13.58 B2=22.12	1968BDe	(69979)1213
-------	----	--------	------	-------	---	--	--	-------------------	---------	-------------

U02++ gl NaClO4 30°C 0.20M U K1=16.60 B2=28.00 1967AMa (69980)1214

U02++ gl KNO3 20°C 0.10M U K1=16.1 1965BSd (69981)1215
K(U02+HL)=3.9

U02++ sp NaClO4 20°C 0.10M U K1=16.6 B2=28.10 1965BSd (69982)1216
K(U02+HL)=4.0
K(U02L+HL)=1.5

U02++ gl oth/un 25°C 0.11M U 1957JAc (69983)1217
K(U02+H2L=U02L+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

U02++ 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

U02++ 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

U02++ 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

U02++ 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

U02++ gl diox/w 25°C 50% U K1=10.28 1971CAAd (70122)1222

Medium: 50% dioxan, 0.1 M NaClO4

C10H9N02C12 HL (3333)
N-2,5-Dichlorophenylacetoacetamide (Acetoacet-2,5-dichloroanilide)

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

U02++ gl diox/w 20°C 50% U K1=8.66 B2=15.68 1969KSe (70147)1223

Medium: 50% dioxan, 0.025 M NaClO4

C10H9N07S2 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

U02++ gl NaClO4 25°C 0.10M U K1=6.19 B2=11.06 1968BDc (70208)1224

C10H9N302S 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

U02++ sp alc/w 20°C 30% U K1=8.8 1968SSd (70405)1225

Medium: 30% EtOH, 0.1 M

C10H9N302S 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

U02++ sp alc/w 20°C 30% U K1=8.1 1968SSd (70408)1226

Medium: 30% EtOH, 0.1 M

C10H10N02C1 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

U02++ gl diox/w 20°C 50% U K1=9.69 B2=17.54 1969KSe (70470)1227

Medium: 50% dioxan, 0.025 M NaClO4

C10H10N02C1 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

U02++ gl diox/w 20°C 50% U K1=9.78 B2=17.80 1969KSe (70478)1228

Medium: 50% dioxan, 0.025 M NaClO4

C10H10N02C1 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

U02++ 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

U02++ 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

U02++ 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

U02++ 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

U02++ gl alc/w 25°C 50% C K1=5.88 B2=11.48 1993EEa (70620)1233
K(U02(nta)+L)=10.71
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

U02++ gl diox/w 30°C 75% U K1=10.67 B2=20.89 1977AHb (70779)1234

U02++ dis NaClO4 20°C 0.10M U K1=7.2 1960STb (70780)1235
K(U02+L+OH)=15.9
K(U02+L+2OH)=24.1

U02++ gl diox/w 30°C 75% U K1=12.15 B2=23.27 1955H0a (70781)1236

C10H1003 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

U02++ gl diox/w 30°C 75% U K1=10.97 B2=21.20 1955H0a (70801)1237

C10H1006 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

U02++ dis NaCl04 25°C 0.10M C H K1=3.01 1990RCa (70863)1238
B((U02)HL)=5.22
K(U02+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

C10H11N02 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

U02++ gl diox/w 20°C 50% U K1=9.94 B2=18.02 1969KSe (70915)1239
Medium: 50% dioxan, 0.025 M NaCl04

C10H11N50 L (2721)

4-(4'-Methylphenylazo)-3-amino-pyrazolin-5-one;

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

U02++ sp alc/w 20°C 100% U H K1=5.94 B2=8.8 1983EAa (71087)1240

C10H11N502 L (2722)

4-(4'-Methoxyphenylazo)-3-amino-pyrazolin-5-one;

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

U02++ sp alc/w 20°C 100% U H K1=6.60 B2=9.81 1983EAa (71098)1241

C10H12N203S HL CAS 93100-65-3 (6199)

2-(2-Pyrrolideneamino)benzene sulfonic acid; C4H7N:N.C6H4.HS03

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

U02++ gl NaCl04 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-ribose;

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 19820La (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.)20

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 1985RSc (76967)1274
 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

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 1971PSb (77020)1276
 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

UO2++ sp oth/un 30°C ? U 1959TPa (77021)1277
 K(UO2+HL=UO2L+H)=1.62(?)

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 NaCl04 30°C 0.10M U T 1972PSa (77066)1278
 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

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 1965DEa (77134)1280
 K(UO2+HL=UO2L+H)=3.45

C11H804 HL CAS 7555-37-5 (4812)
3-Acetyl-4-hydroxycoumarin

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

U02++ gl diox/w 35°C 50% U K1=5.90 B2=10.51 1971MAa (77188)1281
Medium: 50% dioxan, 0.01 M NaClO4

C11H804 HL CAS 6724-42-1 (6183)
8-Formyl-7-hydroxy-4-methyl-2H-1-benzopyran-2-one; CH0.C9H30(:O)(CH3)(OH)

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

U02++ gl alc/w 35°C 70% U K1=6.86 B2=12.40 1988KRc (77208)1282

C11H806S 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

U02++ gl NaClO4 25°C 0.50M C K1=11.77 B2=20.78 1988LKa (77236)1283
B((U02)H-1L2)=10.86

K1 measured by spectrophotometry

C11H806S 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

U02++ gl NaClO4 25°C 0.50M C K1=13.35 B2=21.42 1988LKa (77240)1284
B((U02)H-1L)=5.92
B((U02)H-1L2)=11.69

K1 measured by spectrophotometry

C11H809S2 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

U02++ gl NaClO4 25°C 0.50M C K1=10.94 B2=18.83 1988LKa (77289)1285
B3=22.23

C11H809S2 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

U02++ gl NaClO4 25°C 0.50M C K1=9.809 B2=17.398 1978LKb (77296)1286

C11H9N02 H2L CAS 7470-09-9 (8481)

2-Hydroxy-1-naphthaldoxime;

```
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
U02++      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
-----
U02++      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
-----
U02++      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
-----
U02++      gl  diox/w 35°C 50% U          K(U02+HL)=5.83
                                K(U02+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
-----
U02++      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
-----
U02++      sp  oth/un 20°C 0.10M U      K1=11.9          1967SId (77595)1292
                                K(U02+HL)=12.9
-----
```

```
-----
U02++      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

C11H11N06 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

C11H11N3O5 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
U02++	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
U02++	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
U02++	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
U02++	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
U02++	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
U02++	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									

U02++	gl	NaClO4	30°C	0.10M	U			1980RRa (78238)	1306
K(U02+HL)=1.83									

C11H12N2O2		HL					(9226)		
3-[Diphenylazo]penta-2,4-dione;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
U02++	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
U02++	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
U02++	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
U02++	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
U02++	gl	alc/w	25°C	50%	C		K1=6.70 B2=11.64	1993EEa (78361)	1311
K(U02(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
U02++	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
U02++	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.

 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;

 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-ethanediylobis(2-mercaptoactamide),
 H2B=N,N'-1,2-ethanediylobis(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

U02++ gl NaCl04 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

U02++ 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.

U02++ 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)]naphthol-4-sulphonic acid;

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

U02++ gl NaCl04 30°C 0.10M U T K1=5.37 B2=10.16 1981GMi (80789)1328
Also data for 40-50 C.

C12H11N02S 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

U02++ 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

U02++ 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 NaCl04

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

U02++ 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 NaCl04

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
U02++	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
U02++	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
U02++	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
U02++	sp	alc/w	25°C	70 %	U		B((U02)HL)=8.89	1991HKe (81157)	1335
Medium: 70% v/v MeOH/H2O, 0.5 M NaClO4									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
U02++	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
U02++	gl	diox/w	20°C	50%	U		K1=11.02	1973MGa (81218)	1337
Medium: 50% v/v dioxan, 0.1 M NaClO4									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
U02++	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
U02++	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(UO2C12+L)=1.99
K(UO2C12+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

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
-----
U02++     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
-----
U02++     sp  alc/w 36°C 60% U      K(?)=4.2      1970GPb (85269)1384
-----

```

```

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
-----
U02++     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
-----
U02++     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
-----
U02++     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
-----
U02++     sp  alc/w 20°C 100% U H    K1=4.22 B2=8.76 1983EAb (85347)1388
*****
C13H12N4O      L      Diphenylcarb. 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
-----
U02++     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

C13H15N02 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 1971CAAd (85701)1392

Medium: 50% dioxan, 0.1 M NaClO4

C13H15N02 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 1971CAAd (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)

C14H9N02 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

C14H9N04 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

C14H10N02F 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.

C14H11N03 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

C14H11N03 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.

C14H11N04 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.

U02++ sp alc/w 20°C 100% U H K1=4.9 1983EAb (86982)1409

C14H11N05 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

U02++ 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-sulfohenyl)-3-cyanoformazan;

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

U02++ 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

U02++ 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

U02++ 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

U02++ 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

U02++ 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 19820La (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; ((HOOCH2)2N)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-tetraoxaocadecane;

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

U02++ 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

U02++ gl NaClO4 31°C 0.10M U M K1=7.78 B2=15.31 1977SSb (91245)1445
B(U02L(Malonate))=13.19
B(U02L(Diglycolate))=12.78
B(U02L(Glutarate))=11.38
B(U02L(Maleate))=13.30

B((U02)L(Glycolate))=12.01, B((U02)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

U02++ 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

U02++ 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

U02++ 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

U02++ 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

U02++ gl alc/w 27°C 40% U K1=7.64 B2=18.71 1984E1a (91447)1450

C15H12OS HL (1261)
mono-Thiodibenzoylmethane; C6H5.CO.CH2.CS.C6H5

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

U02++ 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

U02++ gl diox/w 30°C 75% U K1=11.61 B2=23.14 1977AHb (91566)1452

U02++ 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

U02++ gl diox/w 30°C 75% U K1=11.40 B2=22.43 1955H0a (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

U02++ 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

U02++ 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

U02++ 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

U02++ vlt oth/un 25°C ? U M 1990WZa (91943)1458
B(U02+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

U02++ 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

U02++ 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

U02++ 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

U02++ dis non-aq 30°C 100% U 2000SCa (92688)1462
Kd=1.67

Kd: U02+2HL(org)=U02L2(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

U02++ 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

U02++ 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

U02++ 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

U02++ sp alc/w 21°C 40% U K(?)=5.0 1966JKa (93145)1478

Medium: 40% EtOH, 0.4 M NaClO4

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

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

U02++ sp oth/un 25°C ? U K(?)=4.3 1966SAe (93216)1479

U02++ 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

U02++ 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
U02++	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
U02++	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
U02++	gl	diox/w	30°C	75%	U			K1=13.30 B2=24.36	1955H0a (93552)	1484

C16H14O6			H2L					CAS 20210-97-3	(8309)	
Ethylene disalicylate;										
Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
U02++	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
U02++	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
U02++	sp	NaClO4	25°C	0.05M	U				1987CDa (93636)	1487
K(U02+L=U02L)=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-Ethanediybis(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									

C17H13N04		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.									

C17H13N05		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
-----
U02++      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
-----
U02++      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
-----
U02++      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
-----
U02++      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
-----
U02++      sp  alc/w  25°C  70 %  U                      1991HKe (95978)1504
B((U02)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
-----
U02++      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'-Quinoly)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.

C18H150P 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 1976DBa (97101)1520
K((UO2A2)2+2L=2UO2A2L)=1.21

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

U02++ 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-Hexaoxacyclotetracosane-6,8,18,20-tetraone;

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

U02++ 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

U02++ gl NaClO4 25°C 0.50M U 1982NAC (98102)1528
K(U02+H2L)=6.15
K(U02L+H)=6.40
K(U02HL+H=U02H2L)=5.69

U02++ EMF KNO3 25°C 0.10M C 19820La (98103)1529
K(2U02+HL)=17.4
K(U02+H2L)=7.6
K(U02+H3L)=5.5
K(U02+H4L)=4.5

K(2U02+H2L)=11.8, K(2U02+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

U02++ sp non-aq 25°C 100% U K1=7.70 B2=13.00 1985BFa (98763)1530
B((U02)2L)=13.10

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

U02++ sp none 25°C 0.0 U K2=12.64 1979PKa (99001)1531
K(U02L2+4A)=22.48

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]-benzenesulfonamide;

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

UO2++ gl alc/w 25°C 30% U T H K1=7.73 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						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						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 K1eff=4.10 1978BRb (99738)1548

Keff at pH 10

C20H15N3O3 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 Ks(UO2L2HL+2H=UO2+3HL)=-30.81 1961TZa (99753)1550

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(U02L+A)=0.89

K(U02L+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(U02L+A)=2.95.

U02++ sp alc/w 20°C 100% U K1=6.08 1984EAa (99777)1552

U02++ 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

U02++ 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

U02++ 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

U02++ gl diox/w 30°C 75% U B2=18.52 1985RSb (99843)1556

K(U02+HL)=5.54

K(U02+2HL)=10.58

K(U02+L+HL)=15.50

C20H19N3O3S HL CAS 380496-11-7 (9099)

1,3-Di(2-ethylphenyl)-4,5,6-pyrimidinetrione-2-thio-5-oxime;

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

U02++ 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

U02++ 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]-benzenesulfonamid

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]-benzenesulfonami

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 MeNaphtholOrange (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'-phosphophenylazo)-7-(2''-phosphophenylazo)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'-phosphophenylazo)chromotropic acid;

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

U02++ sp KNO3 25°C 0.20M U 1967BMc (101670)1581
B((U02)H10L2)=106.8

C22H18O2 HL (364)
4-Phenylbenzoyl(phenylpropionoloyl)methane;

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

U02++ 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

U02++ gl NaNO3 25°C 0.10M C K1=4.6 1992GAa (101829)1583

U02++ 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

U02++ gl NaNO3 25°C 0.10M C K1=4.97 1992GAa (101888)1585

C23H16O9Cl2S H4L Chrome azuro1 S CAS 1667-99-8 (711)
Chromazuro1 S;

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

U02++ sp oth/un ? 0.10M U 1970CSb (102576)1586

K(U02+H2L=U02(HL)+H)=0.45
K(U02+H3L=U02(HL)+2H)=-2.6
K(U02+HL)=5.35
K(2U02+H2L=(U02)2L+2H)=1.6
K(2U02+L)=18.3

U02++ 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

U02++ 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)phenylpropiolylethanoate;

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 1998ADb (102712)1591
B(UO2H-1L)=3.36
B(UO2H-2L)=-2.17
B(UO2H-3L)=-10.35

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 1967BMc (102917)1592
B((UO2)H12L2)=108.7

C24H32O8 L DiBz-24-Crown-8 CAS 14174-09-5 (580)
2,3:14,15-Dibenzo-1,4,7,10,13,16,19,22-octaoxacyclotetracos-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)

C24H510P L CAS 78-50-2 (4162)
Triocetylphosphine 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)-pyridaziny1 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"-sulfonic acid;

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

 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 19630Ta (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 MeThymo1 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	? 25°C	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.

 C66H408 H4L CAS 173173-83-6 (9060)
 [C60]fullerene dimalonic acid;

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

U02++ sp none 25°C dil C K1=7.494 2003SHa (107773)1613
Self medium, 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

U02++ 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

U02++ 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

U02++ 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

U02++ 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

U02++ sp NaCl 23°C 0.15M U 1961ZBa (108156)1618
*K=6.9(salmon sperm)

*K not clearly defined

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.

UO2++ sp KNO3 25°C 0.10M U I 1996SMb (108185)1620
K1eff=3.93

Method:synchronous fluorecence spectroscopy. pH 3.5.
For pH=7.0, K1eff=4.06.

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.

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.

UO2++ dis NaClO4 25°C 0.10M U K1=5.11 B2=8.94 19815Cb (108247)1624

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 Malinowska,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 Gimenez; *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)
 1989BFc 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 Aiyu,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 Bajju, 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)
197500a 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; Analysis, 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 Sergeeva,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.Comm.,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.Comm.,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 Kouimtzi; J. Inorg. Nucl. Chem., 31, 3851 (1969)
1969MOc A Moskvina; 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. CEA 3611 (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 Moskvina; Radiokhim., 10, 13 (1968)
1968MTa G Marcu, M Tomus, M Solea; Stud. Univ. Babeş-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. Babeş-Bolyai, 12, 2, 11 (1967)
1967MEb A Moskvina, 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 Moskvina, 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)
1967ZO b F Zhakarova, M Orlova; Zh. Neorg. Khim., 12, 10, 2621 (1967)
1967ZO c F Zhakarova, M Orlova; Zh. Neorg. Khim., 12, 3016 (1967)
1967ZO d F Zhakarova, 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 Tympł; 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 Seshaiyah; 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)
1966SO b J Sobkowski; Roczn. 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.Comm.,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.Comm.,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 Suglovov; 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)
19630Ta 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 Moskvina,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)
196000a 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.Comm.,25,2630 (1960)
1960STb J Stary; Collec.Czech.Chem.Comm.,25,86;890 (1960)
1960STc J Stary; Collec.Czech.Chem.Comm.,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 Moskvina,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 Coddling; 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 Chakraborty,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 Longworth; 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

END