

SC-Database

Software version = 5.81 Data version = 4.62

Experiment list contains 245 experiments for

(no ligands specified)

3 metals : Am(Not3,4), Am+++, Am++++

(no references specified)

(no experimental details specified)

e- HL Electron (442)

Electron;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
-----Am(Not3,4) EMF none 25°C 0.00 U 1970BCc (303) 1
K(AmO2++ + e)=28.74(1.70V)Am(Not3,4) EMF oth/un 22°C 0.54M U I 1970YGa (304) 2
K=24.4(1.43V,C=0.54)Medium: C M H3PO4. At C=0.54; K: Am(VI)+e=Am(V); K=24.1(1.41V,C=1.19),
21.5(1.26V,C=3.55), 22.5(1.32V,C=4.34)Am(Not3,4) oth none 25°C 0.0 U 1957GCa (305) 3
K=89(1750 mV)
K'=62(1830 mV)

K: AmO2(VI)+4H+3e=Am(III)+2H2O. From thermodynamic data

K': AmO2(V)+4H+2e=Am(III)+2H2O

Am(Not3,4) EMF NaClO4 25°C 1.0M U 1950PAa (306) 4
K=27.7(1640 mV)

Medium: HClO4. K: AmO2(VI)+e=AmO2(V)

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

Nitrate;

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

Am(Not3,4) sp oth/un 25°C 0.10M U B2=3.93 1975VAa (9567) 5

OH- HL Hydroxide (57)

Hydroxide;

Metal Mtd Medium Temp Conc Cal Flags Lg K values Reference ExptNo
-----Am(Not3,4) sol NaCl 25°C 0.1M U 1988SKe (10986) 6
K(AmO2+OH)=1.7

cation: AmO2+

PO4--- H3L Phosphate CAS 7664-38-2 (176)

Phosphate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Am(Not3,4)	con	oth/un	23°C	1.00M	U			1979LFa (13099)	7
							K(AmO2+2H2PO4)=4.61		

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
Am(Not3,4)	sol	oth/un	25°C	0.50M	U		K1=3.08	1979MPb (18791)	8
Medium: ammonium oxalate									

Am(Not3,4)	sol	oth/un	20°C	1.00M	U			1979MPc (18792)	9
							K(AmO2+L)=3.08		

Am(Not3,4)	sp	KN03	25°C	0.25M	U			1974SNa (18793)	10
							K(AmO2+L=AmO2L)=3.27 (Am(V))		
							K(AmO2L+L=AmO2L2)=2.10 (Am(V))		

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
Am(Not3,4)	sol	oth/un	25°C	1.00M	U		K1=1.20	1979MPb (19886)	11
Medium: ammonium oxalate									

Am(Not3,4)	sol	oth/un	20°C	1.00M	U			1979MPc (19887)	12
							K(AmO2+L)=1.20		

Am(Not3,4)	dis	R4N.X	?	0.10M	U		K1=1.40 B2=1.11	1970HAc (19888)	13
Medium : 0.1 M (H,NH4)ethanoate									

Am(Not3,4)	oth	none	?	?	U		K1=3.01 B2=5.42 B3=7.24	1969MOc (19889)	14
------------	-----	------	---	---	---	--	-------------------------	-----------------	----

Data from survey of literature data. Metal ion: AmO2++

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
Am(Not3,4)	sol	oth/un	25°C	0.10M	U			1979MPb (73580)	15
							K(AmO2+HL)=4.81		
Medium: ammonium oxalate									

Am(Not3,4)	sol	oth/un	20°C	1.00M	U			1979MPc (73581)	16
							K(AmO2+HL)=4.73		

Am(Not3,4) sp KNO3 25°C 0.10M U 1974NSa (73582) 17
K(AmO2+HL)=4.88

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

Am(Not3,4) sp KNO3 25°C 0.10M U 1974NSa (89148) 18
K(AmO2+HL)=6.55
K(AmO2+H2L)=2.85

e- HL Electron (442)
Electron;

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

Am+++ oth none 25°C 0.0 U 1969NBa (307) 19
K(Am+e=Am(II))=-44.0(-2.6V)

Method:Estimated data

Am+++ oth none 25°C 0.0 U 1957GCa (308) 20
K(Am+3e=Am(s))=-121(-2380 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

Am+++ sp oth/un 25°C var U K1=-3.3 1969SGc (1722) 21
Medium: LiBr

Am+++ sp oth/un var U K1=-3.28 1966SMd (1723) 22
Medium:LiBr var

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

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

Am+++ dis NaClO4 25°C 1.00M U K1=5.81 B2=9.72 1982Lub (3143) 23

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

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

Am+++ dis NaClO4 25°C 1.0M C I K1=-0.27 1998SNa (4462) 24

Data for 0-0.40 mol fraction CH3OH in H2O, 1.0 M NaClO4.

At x=0.40, K1=0.87. Method: extraction of 241Am with HDEHP in toluene.

Am+++	dis	NaClO4	20°C	3.00M	U	K1=0.55	B2=0.22	1982FKb (4463)	25
Am+++	dis	NaClO4	30°C	1.0M	U	K1=0.02	B2=-0.37	1971KNb (4464)	26
Am+++	sp	non-aq	?	100%	U I			1970MBa (4465)	27
K6=2.2									

Medium: 85% w/w succinitrile/15% acetonitrile

In propene carbonate: K6=1.8

Am+++	sp	NaClO4	25°C	var	U	K1=-2.0		1969BMe (4466)	28
Medium: HCl									

Am+++	sp	oth/un	?	var	U	K1=-2.2	B2=-4.7	1969MSf (4467)	29
Medium: LiCl									

Am+++	nmr	oth/un	?	var	U	K1=0.3	B2=0.00	1969VSa (4468)	30
Method: nmr									

Am+++	dis	NaClO4		1.0M	U	K1=-0.60	B2=-0.42	1968SFa (4469)	31
-------	-----	--------	--	------	---	----------	----------	----------------	----

Am+++	nmr	oth/un		var	U	K1=0.03	B2=-0.97	1966VKa (4470)	32
-------	-----	--------	--	-----	---	---------	----------	----------------	----

Am+++	ix	NaClO4	26°C	1.0M	U	K1=0.15		1964BPb (4471)	33
Method: cation exchange. When I=1 M HClO4: K1=-0.05									

Am+++	dis	NaClO4	25°C	4.0M	U	K1=-0.15	B2=-0.69	1964SEa (4472)	34
-------	-----	--------	------	------	---	----------	----------	----------------	----

Am+++	sp	KCl	?	var	U	K1=-2.21	B2=-4.70	1964SMa (4473)	35
Medium: LiCl var									

Am+++	ix	NaClO4	20°C	4.0M	U	K1=-0.16	B2=-0.74	1962GRc (4474)	36
-------	----	--------	------	------	---	----------	----------	----------------	----

Am+++	dis	NaClO4	22°C	1.0M	U	K1=-0.05		1962PMb (4475)	37
-------	-----	--------	------	------	---	----------	--	----------------	----

Am+++	ix	none	?	0.0	U	K1=1.17		1956WLa (4476)	38
-------	----	------	---	-----	---	---------	--	----------------	----

ClO4- HL Perchlorate CAS 7001-90-3 (287)

Perchlorate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Am+++	dis	NaClO4	25°C	2.00M	U T		B2=0.30	1981LMa (6145)	39
Am+++	dis	oth/un	25°C	2.0M	U		K1=-0.07	1972BCa (6146)	40
Medium: HBF4									

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

Fluoride;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Am+++	oth	NaClO4	25°C	0.10M	U		K1=3.32	1973MSg (6733)	41
Method: electrical migration or transference number									
Am+++	dis	NaClO4	25°C	0.50M	C		K1=3.39 B2= 6.11 B3=9.00	1970ALc (6734)	42
Method: extraction of 241Am from 0.50 M NaClO4 medium into toluene/di-(2-ethylhexyl)phosphoric acid. Medium pH 3.6.									
Am+++	dis	NaClO4	25°C	0.50M	U		K1=3.39 B2=6.11 B3=9.0	1969ALd (6735)	43
Am+++	dis	NaClO4	25°C	1.0M	U		K1=2.93	1969JCa (6736)	44
Am+++	sol	NaClO4	23°C	0.10M	U T H		K3=4.13 Ks(AmF3(s)=AmF3)=-4.87	1954FEa (6737)	45
At 0 C: K3=3.74, Ks=-5.09. DH(K3)=21.9 kJ mol-1, DS=133 J K-1 mol-1; DH(Ks)=14.6, DS=-43.9. By solubility, 47 C: K3=4.35, Ks=-4.68									

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

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Am+++	dis	R4N.X	25°C	2.0M	U T		K1=0.20	1973CDd (9568)	46
Medium: NH4SCN									
Am+++	dis	R4N.X	30°C	1.0M	U		K1=0.23 B2=0.13	1971KNb (9569)	47
Medium:NH4ClO4									
Am+++	dis	NaClO4	20°C	8.0M	U		K1=-0.33 B2=-0.77 B3=-1.40	1970LKa (9570)	48
Medium:HClO4									
Am+++	sp	KNO3	25°C	var	U		K1=-1.3	1969SGc (9571)	49
Medium:LiNO3									
Am+++	sp	NaClO4	?	1.0M	U		K1=-1.3	1966GIa (9572)	50
Am+++	dis	NaClO4	25°C	1.0M	U		K1=0.26	1965CSb (9573)	51
Am+++	ix	NaClO4	26°C	1.0M	U I		K1=0.20	1964BPb (9574)	52
In 1 M HClO4: K1=0.15, B2=-0.4									
Am+++	dis	NaClO4	?	1.0M	U		K1=-0.26 B2=0.18	1964BPb (9575)	53

Am+++	dis	NaClO4	22°C	1.0M	U	K1=0.26	1962PMb (9576)	54

Am+++	dis	oth/un	?	0.0	U	M	1962ZSb (9577)	55
Kd(Am+3L+3T(org)=AmL3T3(org))=-0.4 org=kerosene, bp 170-240C(T=(BuO)3PO); Kd=0.87(T=(BuO)2BuPO); 2.05((BuO)Bu2PO); 3.25(Bu3PO); 0.92(i-pentoxy)2CH3PO								

Am+++	ix	R4N.X	25°C	1.0M	U	K1=0.60	1960LPb (9578)	56
Medium: NH4Cl, ClO4								

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

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

Am+++	dis	none	25°C	0.0	U		K1=1.26 B2=1.60 B3=1.41	1983MCb (10180) 57

OH-		HL	Hydroxide				(57)	
Hydroxide;								

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

Am+++	gl	none	23°C	dil	U		Kso(Am(OH)3)=-27.35	1990PSc (10987) 58

Am+++	dis	oth/un	30°C	0.01M	C		*K1=-3.65	1989MKb (10988) 59
Medium: ClCH2COOH								

Am+++	sol	NaClO4	25°C	3.00M	U		K1=7.56 B2=14.74 B3=31.56	1989PKa (10989) 60

Am+++	sol	NaCl	25°C	0.1M	U		K(Am+OH)=6.3 K(Am+3OH)=14.4 K(Am+2OH)=12.2	1988SKe (10990) 61

Am+++	dis	NaCl	21°C	0.7M	U		K[Am(OH)+H]=7.54	1983CCb (10991) 62

Am+++	sol	none	22°C	0	U		K[Am(OH)3+2H=Am(OH)]=17.1	1983RSc (10992) 63

Am+++	gl	NaClO4	25°C	1.0M	U		K(AmOH+H)=7.03	1982Nca (10993) 64

Am+++	dis	NaClO4	?	0.10M	U		*K1=-5.30	1973HHd (10994) 65
Medium: LiClO4								

Am+++ oth R4N.X 25°C 0.01M U K1=10.7 B2=20.9 1972SSf (10995) 66
Medium: 0.005 M NH4ClO4. Method: electrical migration or transference number

Am+++ dis NaClO4 23°C 0.10M U 1969DHa (10996) 67
*K1=-5.92

Medium: LiClO4

Am+++ oth KCl 15°C 0.01M U K1=11.3 1969MKb (10997) 68
KCl: 0.005 M. Method: paper electrophoresis

P04--- H3L Phosphate CAS 7664-38-2 (176)

Phosphate;

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

Am+++ gl non-aq 23°C 100% U 1987PLc (13100) 69
K(Am+H2PO4)=12.0

Medium: acetonitrile, 0.4 M H2PO4 + 0.1 M ClO4

Am+++ dis oth/un 30°C 0 U 1986RMc (13101) 70
K(Am+HL)=4.14
K(Am+H2L)=2.13

Medium 0.5 M NH4ClO4. Data are recalculated for 0 ionic strength

Am+++ sp oth/un 23°C 0.00 U 1979LFb (13102) 71
K(Am+H2PO4)=2.73
K(Am+2H2PO4)=3.72

Am+++ ix none 25°C 0.0 U 1972EZb (13103) 72
K(Am+H2L)=2.51

Am+++ ix R4N.X 20°C 1.00M U 1971M0d (13104) 73
K(Am+H2L)=1.48
K(Am+2H2L)=2.10
K(Am+3H2L)=2.85
K(Am+4H2L)=3.4

Medium:NH4Cl

Am+++ oth none ? 0.0 U 1969M0c (13105) 74
K(Am+H2L)=2.39
K(Am+2H2L)=3.63
K(Am+3H2L)=5.62
K(Am+4H2L)=6.3

Methods: solubility, ion exchange, distribution, EMF

Am+++ ix R4N.X 25°C 0.20M U I 1966BEc (13106) 75
K(Am+H2L)=1.69

Medium: NH4ClO4. I=0 corr: K=2.51

P309--- H3L CAS 13566-25-1 (235)

Cyclotrimetaphosphate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Am+++	ix	none	25°C	0.0	U		K1=5.94	1972EZb (13945)	76
Am+++	ix	R4N.X	25°C	0.20M	U	I	K1=3.48	1967ELa (13946)	77
Medium: NH4ClO4. K1=6.06(I=0 corr)									

SCN-		HL		Thiocyanate			CAS 463-56-9	(106)	
Thiocyanate;									

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Am+++	oth	NaClO4	30°C	1.0M	U	R	K1=0.17	1997BP a (14804)	78
IUPAC evaluation									
Am+++	dis	NaClO4	25°C	5.0M	U	T H	K1=0.60	1974KCa (14805)	79
K1=0.42(10 C), 0.68(40 C), 0.72(55 C). By calorimetry, DH(K1)=11.7 kJ mol ⁻¹									
Am+++	dis	R4N.X	30°C	1.00M	U	T	K1=0.17 B2=0.62	1974KMa (14806)	80
Medium: NH4ClO4/NH4SCN, pH 2.8									
Am+++	dis	R4N.X	25°C	2.0M	U		K1=-0.52 B2=0.74 B3=0.87	1973CDd (14807)	81
Medium: NH4NO3									
Am+++	dis	NaClO4	25°C	1.0M	U	H	K1=0.36 B2=0.04 B3=-0.15	1972HPb (14808)	82
DH(K1)=6.69 kJ mol ⁻¹ , DS=29 J K ⁻¹ mol ⁻¹ . DH(B3)=-25, DS=-83.7									
Am+++	sp	NaClO4	22°C	1.0M	U		K1=0.76 B2=0.83	1972HPc (14809)	83
Am+++	dis	NaClO4	30°C	1.0M	U	T	K1=0.17 B2=0.51	1971KNb (14810)	84
also LiClO4 and NH4ClO4 media									
Am+++	dis	NaClO4	25°C	1.0M	U	T H T	K1=0.50 B2=0.84	1965CKb (14811)	85
K1=0.40(40 C), 0.19(55 C). DH(K1)=-18.2 kJ mol ⁻¹ , DS=-51.4 J K ⁻¹ mol ⁻¹									
Am+++	dis	NaClO4	25°C	5.0M	U	T	K1=0.85 B3=0.55 B4=0.00	1965SEb (14812)	86
Am+++	dis	NaClO4	25°C	5.0M	U		K2K3=-0.2 K4=-0.13	1965SEc (14813)	87
Kd(AmL3=AmL3(5% TBP in hexane))=2.5									
Am+++	ix	NaClO4	?	5.0M	U	I	K1=0.24 B3=-0.04	1962LYb (14814)	88

In 0.5 M NH₄ClO₄ K₁=0.66. At I=0 corr K₁=1.61. Method: cation exchange

S04-- H2L Sulfate CAS 7664-93-9 (15)
Sulfate;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Am+++	oth	NaClO ₄	25°C	0.10M	C			K ₁ =2.5	1990RRc (15987)	89
Method: electromigration of 241Am. Medium pH=5.5. Also data for pH=2.8. Tentative value of K ₂ =0.6.										
Am+++	dis	NaCl	30°C	1.00M	U			K ₁ =1.72	1980KMa (15988)	90
Am+++	dis	NaClO ₄	25°C	1.0M	U	I		K(Am+HL)=0.64 K(Am+2HL)=0.76	1978RBa (15989)	91
Am+++	dis	none	25°C	0.0	U			K ₁ =3.76 B ₂ =5.64 B ₃ =5.29	1972MCc (15990)	92
Am+++	dis	NaClO ₄	25°C	0.50M	U			K ₁ =1.85 B ₂ =2.83	1968ALd (15991)	93
By cation exchange: K ₁ =1.86, B ₂ =2.80										
Am+++	ix	NaClO ₄	27°C	1.0M	U			K ₁ =1.49 B ₂ =2.36	1968NAb (15992)	94
In 1 M HClO ₄ : K ₁ =1.22, K(Am+2HL)=0.54										
Am+++	dis	NaClO ₄	?	1.20M	U			K ₁ =1.48 B ₂ =2.59	1968SFa (15993)	95
Am+++	dis	NaClO ₄	55°C	2.0M	U	T H		K ₁ =1.65 B ₂ =2.38	1967CCd (15994)	96
K ₁ =1.11(0 C), 1.43(25 C), 1.58(40 C); B ₂ =1.73(0 C), 1.85(25 C), 2.03(40 C) DH(K ₁)=18.4 kJ mol ⁻¹ , DS=87.8 J K ⁻¹ mol ⁻¹										
Am+++	dis	NaClO ₄	25°C	1.0M	U			K ₁ =1.57 B ₂ =2.66	1965SEa (15995)	97
Am+++	ix	NaClO ₄	26°C	1.15M	U	I		K ₁ =1.49 B ₂ =2.48	1964Nwa (15996)	98
In 1 M HClO ₄ : K ₁ =1.18, B ₂ =1.38										
Am+++	ix	R4N.X	25°C	1.50M	U	I		K ₁ =1.76 B ₂ =2.11	1960LPb (15997)	99
Medium: NH ₄ Cl, ClO ₄ . K ₁ =1.78(I=0.75), 3.68(I=0 corr.)										

CH5O3P H2L CAS 13590-71-1 (1752)
Methylphosphonic acid; CH₃.PO₃H₂

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Am+++	ix	none	25°C	0.00	U	I		K(Am+HL)=2.79	1967BEa (18123)	100
At I=0.5 M NH ₄ ClO ₄ : K(Am+HL)=1.84										

CH5O4P H2L CAS 2617-47-2 (1977)

Hydroxymethylphosphonic acid; HO.CH2.PO3H2

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

Am+++	ix	R4N.X	25°C	0.20M	U			1972EZd (18146)	101
-------	----	-------	------	-------	---	--	--	-----------------	-----

K(Am+HL)=1.56

K(Am+2HL)=3.18

Medium: NH4ClO4

C2H02Cl3		HL	Trichloroacetic	CAS 76-03-9	(1205)
----------	--	----	-----------------	-------------	--------

Trichloroethanoic acid; Cl3C.COOH

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

Am+++	cal	NaClO4	25°C	2.00M	U		K1=0.32	1980ECa (18326)	102
-------	-----	--------	------	-------	---	--	---------	-----------------	-----

C2H202Cl2		HL		CAS 79-43-6	(1282)
-----------	--	----	--	-------------	--------

Dichloroethanoic acid; Cl2CH.COOH

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

Am+++	cal	NaClO4	25°C	2.00M	U		K1=0.79	1980ECa (18391)	103
-------	-----	--------	------	-------	---	--	---------	-----------------	-----

C2H204		H2L	Oxalic acid	CAS 144-62-7	(24)
--------	--	-----	-------------	--------------	------

Ethanedioic acid; (COOH)2

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

Am+++	oth	NaClO4	25°C	0.10M	C	I	K1=5.01 B2= 8.16	1990RRc (18794)	104
-------	-----	--------	------	-------	---	---	------------------	-----------------	-----

Method: electromigration of 241Am. Data for 0.01, 0.05 and 0.10 M.

At I=0, K1=5.90, K2=3.72.

Am+++	sol	NaClO4	25°C	0.30M	U	I		1987PKa (18795)	105
-------	-----	--------	------	-------	---	---	--	-----------------	-----

B3=11.56

By extrapolation to I=0 : K1=6.68; B2=9.94; B3=11.62

Am+++	oth	oth/un	25°C	0.10M	U		K1=5.30 B2=8.90	1971STe (18796)	106
-------	-----	--------	------	-------	---	--	-----------------	-----------------	-----

Method : electrical migration or transference number

Am+++	ix	NaClO4	25°C	0.50M	U		K1=4.82 B2=8.60	1968ALd (18797)	107
-------	----	--------	------	-------	---	--	-----------------	-----------------	-----

Am+++	dis	R4N.X	20°C	0.10M	U		B2=8.3	1966STa (18798)	108
-------	-----	-------	------	-------	---	--	--------	-----------------	-----

B3=11.8

Medium : NH4Cl

Am+++	oth	oth/un	25°C	0.10M	U		K1=6.15 B2=10.54	1965SMi (18799)	109
-------	-----	--------	------	-------	---	--	------------------	-----------------	-----

Method: electromigration

Am+++	dis	NaClO4	25°C	1.0M	U		K1=4.63 B2=8.35	1964SEa (18800)	110
-------	-----	--------	------	------	---	--	-----------------	-----------------	-----

B3=11.15

 Am+++ ix oth/un 23°C 0.20M U K1=5.99 B2=10.15 1960LPa (18801) 111

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

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

Am+++ cal NaClO4 25°C 2.00M U K1=1.31 1980ECa (19355) 112

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

Am+++ dis NaCl 25°C 0.30M C I K1=1.73 1999MBb (19890) 113
 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=2.49.

 Am+++ cal NaClO4 25°C 2.00M U H 1989RSa (19891) 114
 DH(K1)=-6.8 kJ mol-1

 Am+++ dis oth/un 25°C 0.50M U K1=2.39 1987RMa (19892) 115
 Medium: NH4ClO4/HClO4. By distribution between 0.5 M NH4ClO4 and benzene

 Am+++ dis NaClO4 0°C 2.00M U T K1=1.69 1970CSd (19893) 116
 At 25 C: K1=1.96, 40 C: K1=2.11, 55 C: K1=2.24

 Am+++ oth none ? 0.00 U K1=2.97 B2=5.07 1969MOc (19894) 117
 B3=6.54
 B4=7.56
 B5=8.25
 B6=8.61

Data from survey of literature data

 Am+++ dis oth/un ? 0.10M U K1=1.98 B2=3.34 1969VOc (19895) 118
 B3=3.73

 Am+++ ix NaClO4 20°C 0.50M U K1=1.99 B2=3.28 1962GRa (19896) 119
 B3=3.9

 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

Am+++ ix NaClO4 20°C 0.50M U T 1962GRa (20300) 120
 K(Am+HL)=1.55
 K(AmHL+HL)=2.6

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
Am+++	dis	NaClO4	25°C	2.00M	U	T	K1=2.59 B2=4.40	1972CDb (20490)	121
0.5 C: K1=2.66, K2=1.80; 52.6 C: K1=2.49, K2=1.98									
Am+++	ix	NaClO4	20°C	0.50M	U		K1=2.82 B2=4.86	1962GRb (20491)	122
							B3=6.3		

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
Am+++	ix	KCl	25°C	1.00M	U		K1=4.1	1974RKb (21492)	123
Am+++	dis	NaClO4	25°C	2.0M	U	T H T		1968TCa (21493)	124
							K(Am+HL)=0.69		
K=0.48(0 C), 0.57(11 C), 0.69(25 C), 0.78(40 C). DH=12.1 kJ mol ⁻¹ , DS=54									

C2H5O5P H3L CAS 4408-78-0 (4225)
 Phosphonoethanoic acid; H00C.CH2.PO3H2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Am+++	ix	none	25°C	0.00	U			1972EZc (21889)	125
							K(Am+HL)=5.15		
							K(Am+2HL)=8.5		
							K(Am+H2L)=2.75		

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
Am+++	dis	oth/un	25°C	2.00M	U		K1=2.03 B2=3.34	1971ALe (24044)	126
							B3=3.87		

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
Am+++	dis	NaClO4	25°C	1.00M	C	H	K1=2.43 B2=4.23	1984LLa (25397)	127
							B3=5.65		
							B4=6.0		

Solvent extraction (5x10⁻⁴ M HDEHP in n-heptane pH 4.00)

Am+++ oth KCl 10°C 1.50M U K1=2.57 B2=4.21 1972SNa (25398) 128
Method: (gelatinized cellulose acetate), electrophoresis

Am+++ dis oth/un 25°C 2.00M U K1=2.52 B2=4.77 1971ALe (25399) 129
B3=5.98

Am+++ dis R4N.X 20°C 0.50M U 1967ESa (25400) 130
B3=6.71

Background salt is NH4ClO4

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

Am+++ ix KCl 25°C 1.00M U K1=3.9 1974RKB (26139) 131

Am+++ dis oth/un 25°C 2.00M U K1=0.79 1971ALe (26140) 132

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

Am+++ ix KCl 25°C 1.00M U K1=4.2 1974RKB (26752) 133

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

Am+++ ix KCl 25°C 1.00M U K1=4.3 1974RKB (27117) 134

C3H9O3P HL CAS 38585-11-9 (4238)
Ethyl(hydroxymethyl)phosphinic acid; C2H5(HO.CH2).PO2H

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

Am+++ ix R4N.X 25°C 0.20M U K1=1.81 1972EZd (27997) 135

Medium: NH4ClO4

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

Am+++ ix R4N.X 25°C 1.00M U K1=2.17 B2=3.10 1972CSb (28637) 136

Medium: NH4ClO4

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
-------	-----	--------	------	------	-----	-------	-------------	-----------	--------

Am+++	ix	KCl	25°C	1.00M	U		K1=4.5	1974RKb (30586)	137
-------	----	-----	------	-------	---	--	--------	-----------------	-----

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

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

Am+++	dis	oth/un	25°C	0.50M	U		K1=4.20 B2=6.84	1987RMa (31010)	138
-------	-----	--------	------	-------	---	--	--------------------	-----------------	-----

By distribution between 0.5 M NH4ClO4 and benzene

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
-------	-----	--------	------	------	-----	-------	-------------	-----------	--------

Am+++	dis	oth/un	20°C	0.10M	U		K1=3.9 B2=6.78	1966STa (31193)	139
-------	-----	--------	------	-------	---	--	-------------------	-----------------	-----

Am+++	dis	NaCl	?	0.10M	U		B2=7.80	1965MOb (31194)	140
-------	-----	------	---	-------	---	--	---------	-----------------	-----

Method: paper electrophoresis

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
-------	-----	--------	------	------	-----	-------	-------------	-----------	--------

Am+++	dis	NaCl	25°C	0.1M	U		K1=4.81 B2= 6.75	1984SCa (31815)	141
-------	-----	------	------	------	---	--	---------------------	-----------------	-----

For 0.7 M NaCl K1=4.53; B2=6.65

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
-------	-----	--------	------	------	-----	-------	-------------	-----------	--------

Am+++	cal	<chem>NaClO4</chem>	25°C	0.50M	U	H		1989RSa (32198)	142
-------	-----	---------------------	------	-------	---	---	--	-----------------	-----

DH(K1)=4.5 kJ mol⁻¹

Am+++	sp	R4N.X	25°C	0.10M	U		K1=6.93	1969DBa (32199)	143
-------	----	-------	------	-------	---	--	---------	-----------------	-----

Medium: NH4ClO4

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
-------	-----	--------	------	------	-----	-------	-------------	-----------	--------

Am+++	ix	KCl	25°C	1.00M	U		K1=5.1	1974RKb (32682)	144
-------	----	-----	------	-------	---	--	--------	-----------------	-----

C4H8N2O4 H2L CAS 39156-77-9 (3008)
Hydrazine-N,N-diethanoic acid; H2N.N(CH2.COOH)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Am+++	oth	KNO3	25°C	0.10M	U			K1=10.98 B2=20.0 K(Am+HL)=4.1	1971LSc (33100)	145

Method: electrical migration or transference number

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
Am+++	oth	oth/un	25°C	0.10M	U			K1=2.92 B2=5.11 B3=6.28	1971SHb (33444)	146

Method: electrical migration or transference number

Am+++	ix	oth/un	?	?	U			K1=2.72	19560Ca (33445)	147
-------	----	--------	---	---	---	--	--	---------	-----------------	-----

C4H14N2O4P2 H2L CAS 37107-07-6 (4287)
Ethylenebis(iminomethylenephosphonous acid)

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Am+++	ix	oth/un	25°C	0.50M	U			K(Am+H2L)=6.11	1971EZd (35828)	148

C4H14N2O6P2 H2L EDDPO CAS 1733-49-9 (2435)
1,2-Diaminoethane-N,N'-bis(methylenephosphonic) acid; (H2O3P.CH2.NH.CH2)2

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Am+++	ix	R4N.X	25°C	0.50M	U			K(Am+H2L)=6.11	1973EZa (35868)	149

Medium: NH4ClO4

Am+++	oth	oth/un	25°C	0.10M	U			K1=16.52 K(Am+HL)=12.30 K(Am+H2L)=8.48 K(Am+H3L)=6.30	1971SHb (35869)	150
-------	-----	--------	------	-------	---	--	--	--	-----------------	-----

Method: electrical migration or transference number

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
Am+++	ix	KCl	25°C	1.00M	U			K1=5.6	1974RKb (39064)	151

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
Am+++	ix	KCl	25°C	1.00M	U		K1=4.7	1974RKb (41078)	152

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
Am+++	dis	oth/un	RT	0.10M	C		K1=8.0 B2=12.10 B(AmHL)=10.1 B(AmH2L2)=20 B(AmHL2)=16.3	1984BGb (46031)	153

Solvent extraction from 0.10 M LiClO4 into thenoyltrifluoroacetone/benzene
 By potentiometry: K1=8.69, B(AmHL)=11.36, B(AmHL2)=18.97, B2=14.29

Am+++	dis	NaClO4	25°C	0.10M	U			1974HHa (46032)	154
							K(AmL2+6H=Am+2H3L)=14.00 K(Am(HL)+5H=Am+2H3L)=9.56		

Am+++	dis	oth/un	25°C	0.10M	U		K1=7.68	1971GBa (46033)	155
							K(Am+2H3L=AmHL2+5H)=-9.7		

Am+++	ix	NaCl	25°C	0.10M	U		K1=6.74 B2=18.29	197100a (46034)	156
							K(Am+HL)=5.31 K(Am+2HL)=8.23		

Am+++	oth	oth/un	25°C	0.10M	U		K1=7.74 B2=10.94	1971STe (46035)	157
							K(AmL+HL)=2.50		

Constants obtained by survey of literature data

C6H9NO6 H3L NTA CAS 139-13-9 (191)
 Nitritotriethanoic acid; N(CH2.COOH)3

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg K values	Reference	ExptNo
Am+++	cal	NaClO4	25°C	0.50M	U	H		1989RSa (46694)	158

DH(K1)=12.6 kJ mol⁻¹

Am+++	dis	oth/un	rt	6.00M	U		K1=11.7 B2=20.28	1975KPb (46695)	159
-------	-----	--------	----	-------	---	--	-----------------------	-----------------	-----

Method: distribution of Am betw. 1M trioctylamine in Toluole/EDTA in 6M
 LiNO3 aq.; pH=3-4

Am+++	oth	NaClO4	25°C	0.10M	U	T	T K1=11.99 B2=21.10	1972ESb (46696)	160
-------	-----	--------	------	-------	---	---	--------------------------	-----------------	-----

K1(15 C)=11.90, K1(50 C)=11.71, K2(15 C)=9.13, K2(50 C)=8.68

Am+++	ix	R4N.X	20°C	1.00M	U		K1=10.87	1971MOc (46697)	161
-------	----	-------	------	-------	---	--	----------	-----------------	-----

K(Am+L+HL)=13.65

Am+++ oth oth/un 20°C 0.10M U K1=11.55 B2=19.52 1971SHb (46698) 162
K(Am+L+HL)=13.56

Method: electrical migration or transference number

Am+++ oth none ? 0.00 M K1=13.46 1969M0c (46699) 163
Constant from survey of literature data

Am+++ ix R4N.X 25°C 0.10M U K1=11.52 B2=20.24 1968EAa (46700) 164
Medium: NH4ClO4

Am+++ dis R4N.X 20°C 0.10M U K1=11 B2=19.74 1966STa (46701) 165
Medium: NH4Cl

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

Am+++ ix KCl 25°C 1.00M U K1=4.7 1974RKb (47531) 166

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

Am+++ oth KNO3 25°C 0.10M U 1972SHb (48689) 167

K(Am+HL)=9.30

K(Am+2HL)=16.50

Method: electrical migration or transference number

Am+++ dis oth/un 25°C 0.10M U K1=9.3 1971EVb (48690) 168

Am+++ oth oth/un 25°C 0.10M U K1=9.3 B2=16.5 1971SHb (48691) 169

Method: electrical migration or transference number

Am+++ sp R4N.X 25°C 0.10M U K1=9.75 B2=16.96 1969DBa (48692) 170

Medium: NH4ClO4

Am+++ ix R4N.X 25°C 0.10M U K1=9.14 B2=17.03 1969EBa (48693) 171

Medium: NH4ClO4

C6H14N4O2 HL Arginine CAS 74-79-3 (40)
2-Amino-5-guanidopentanoic acid; H2N.CH((CH2)3.NH.C(:NH)(NH2)COOH

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

Am+++ ix KCl 25°C 1.00M U K1=3.7 1974RKb (51002) 172

C6H20N2012P4 H8L EDTPA CAS 1429-50-1 (434)
 Ethane-1,2-bis(iminobis(methylenephosphonic acid)); ((H2O3PCH2)2NCH2.)2

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

Am+++	oth	oth/un	25°C	0.10M	U			K1=22.47 K(Am+HL)=18.45 K(Am+H2L)=14.90 K(Am+H3L)=11.17 K(Am+H4L)=7.33	1971SHb (52320)	173
-------	-----	--------	------	-------	---	--	--	--	-----------------	-----

K(Am+H5L)=4.80. Method: electrical migration or transference number

C7H6O6S H3L CAS 5965-83-3 (399)
 5-Sulfosalicylic acid, 2-Hydroxy-5-sulfobenzoic; HO3S.C6H3(OH).COOH

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

Am+++	gl	NaCl04	25°C	1.0M	C			K1=8.06 B2=15.34	1983Nca (54938)	174
-------	----	--------	------	------	---	--	--	---------------------	-----------------	-----

Am+++	gl	NaCl04	25°C	1.0M	U			K1=8.06 B2=15.34	1979Nca (54939)	175
-------	----	--------	------	------	---	--	--	---------------------	-----------------	-----

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

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

Am+++	ix	R4N.X	25°C	0.10M	U			K1=10.54 B2=17.83 K(Am+HL)=4.02	1968EAa (56877)	176
-------	----	-------	------	-------	---	--	--	---------------------------------------	-----------------	-----

Medium: NH4Cl04

C7H15O3P HL CAS 9095-99-6 (4458)
 Diethylphosphinylpropanoic acid; (CH3.CH2)2.PO.CH2.CH2.COOH

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

Am+++	ix	R4N.X	25°C	0.50M	U			K1=1.76 B2=3.17	1972Eza (58024)	177
-------	----	-------	------	-------	---	--	--	--------------------	-----------------	-----

Medium: NH4Cl04

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
-------	-----	--------	------	------	-----	-------	----	----------	-----------	--------

Am+++	dis	oth/un	25°C	0.10M	U			K1=3.4 B2=8.50 K3=5.0	1969KSa (58598)	178
-------	-----	--------	------	-------	---	--	--	-----------------------------	-----------------	-----

Am+++	dis	non-aq	25°C	100%	U	M			1969KSa (58599)	179
-------	-----	--------	------	------	---	---	--	--	-----------------	-----

K(AmL3+A)=1.18
 K(AmL3+2A)=1.56

Medium: CHCl3. A=hexanone

Am+++ dis R4N.X 20°C 1.0M U K1=5.42 B2=11.50 1968RSe (58600) 180
Medium: NH4Cl

C8H13NO6 H3L (4540)
N-(3-Carboxypropyl)iminodiethanoic acid; HOOCH₂CH₂CH₂N(CH₂COOH)₂

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

Am+++	ix	R4N.X	25°C	0.10M	U		K(Am+HL)=3.53	1968EAa (61800)	181
-------	----	-------	------	-------	---	--	---------------	-----------------	-----

Medium: NH4ClO4

C8H22N2O6P2 H4L EDDIPH CAS 13516-59-1 (1355)
Diaminoethane-N,N'-di(isopropylphosphonic)acid; (CH₂NH.C(CH₃)₂.PO₃H₂)₂

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

Am+++	oth	oth/un	25°C	0.10M	U		K1=18.0 K(Am+HL)=13.95 K(Am+H2L)=8.94 K(Am+H3L)=6.26	1971SHb (63350)	182
-------	-----	--------	------	-------	---	--	---	-----------------	-----

Method : electrical migration or transference number

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
-------	-----	--------	------	------	-----	-------	-------------	-----------	--------

Am+++	ix	KCl	25°C	1.00M	U		K1=4.0	1974Rkb (65924)	183
-------	----	-----	------	-------	---	--	--------	-----------------	-----

C9H15NO6 H3L (4656)
N-(Carboxybutyl)iminodiethanoic acid; HOOCH₂(CH₂)₄N(CH₂COOH)₂

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

Am+++	ix	oth/un	25°C	0.10M	U		K(Am+HL)=3.47	1968EAa (67443)	184
-------	----	--------	------	-------	---	--	---------------	-----------------	-----

Medium: NH4ClO4

C10H7O2F3 HL CAS 326-06-7 (196)
3-Benzoyl-1,1,1-trifluoroacetone; CF₃.CO.CH₂.CO.C₆H₅

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

Am+++	dis	oth/un	25°C	0.10M	U		B3=14.84	1969KSa (69134)	185
-------	-----	--------	------	-------	---	--	----------	-----------------	-----

Am+++	dis	non-aq	25°C	100%	U		K(AmL3+A)=1.31	1969KSa (69135)	186
-------	-----	--------	------	------	---	--	----------------	-----------------	-----

$$K(\text{AmL3}+2\text{A})=1.68$$

Medium: CHCl₃. A=hexone

C10H11NO5 H3L CAS 100844-86-8 (2108)

N-(2-Hydroxyphenyl)iminodiethanoic acid; HO.C₆H₄.N(CH₂.COOH)₂

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

Am+++ dis R4N.X 25°C 0.10M U 1971EVa (71037) 187

$$K(\text{Am+HL})=6.80$$

$$K(\text{Am+2HL})=11.86$$

Medium: 0.1 M NH₄ClO₄

C10H12N2O4 H2L CAS 16598-05-3 (967)

2-Pyridylmethyliminodiethanoic acid; C₅H₄N.CH₂.N(CH₂.COOH)₂

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

Am+++ ix R4N.X 25°C 0.10M U K1=8.96 B2=17.71 1969EBa (71249) 188

Medium: 0.1 M NH₄ClO₄

C10H16N2O8 H4L EDTA CAS 60-00-4 (120)

1,2-Diaminoethane-N,N,N',N'-tetraethanoic acid, Sequestic acid;

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

Am+++ cal NaClO₄ 25°C 0.50M U H 1989RSa (73583) 189

DH(K1)=23.9 kJ mol⁻¹

Am+++ dis oth/un rt 6.00M U K1=17.38 1975KPb (73584) 190

Method: distribution of Am betw. 1M Trioctylamine in Toluol/EDTA in 6M

LiNO₃ aq.; pH=3-4

Am+++ oth KNO₃ 25°C 0.10M U T K1=17.0 1972SHc (73585) 191

$$K(\text{Am+HL})=9.21$$

$$K(\text{Am+OH+L})=19.98$$

Method: electrical migration or transference number

Am+++ kin oth/un 24°C 0.50M U K1=18.0 1971DCa (73586) 192

Am+++ ix R4N.X ? 0.10M U I K1=17.14 1971EZb (73587) 193

Medium: (NH₄ClO₄), I= near zero, K1=19.80

Am+++ oth oth/un 20°C 0.10M U K1=17.0 1971SHb (73588) 194

$$K(\text{Am+HL})=9.20$$

Method: electrical migration or transference number

Am+++ sp R4N.X 25°C 0.10M U K1=18.06 1969DBa (73589) 195

Medium: 0.1 M NH₄ClO₄

Am+++	oth	oth/un	25°C	0.10M	U	T	K1=17.0	1967LMa (73590)	196

Am+++	dis	R4N.X	20°C	0.10M	U	T	K1=16.91	1966STa (73591)	197
Medium: 0.1 M NH4Cl									

Am+++	ix	R4N.X	25°C	0.10M	U		K1=18.16	1957FSa (73592)	198
Medium: 0.1 M NH4ClO4									

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

Am+++	dis	KCl	25°C	0.10M	U		B2=2.78 K(Am+L+HL)=1.0 K(Am+2HL)=1.30	1971ZMa (75333)	199

Am+++	sp	R4N.X	25°C	0.10M	U		K1=16.18	1969DBa (75334)	200
Medium: NH4ClO4									

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

Am+++	dis	R4N.X	25°C	0.10M	U		K1=0.21	1991MMc (75971)	201

C11H11NO6 H3L CAS 1147-65-5 (425)									
N-(2'-Carboxyphenyl)iminodiethanoic acid; HOOC.C6H4.N(CH2.COOH)2									

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

Am+++	ix	R4N.X	25°C	0.10M	U		K1=8.92	1969EBa (77822)	202
Medium: NH4ClO4									

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

Am+++	ix	KCl	25°C	1.00M	U		K1=4.6	1974RKb (78190)	203

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

Am+++	cal	NaClO4	25°C	0.50M	U	H		1989RSa (79421)	204
DH(K1)=-13.3 kJ mol-1									

Am+++ dis NaCl 25°C 0.10M C K1=13.45 1985CMc (79422) 205
Method: extraction of 241Am from 0.1 M NaCl (pH 5.5) into toluene/HDEHP.

C12H9N2O2Cl3 HL CAS 38580-17-5 (4952)

1-Phenyl-3-methyl-4-trichloroacetylpyrazol-5-one;

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

Am+++ dis oth/un 25°C 0.10M U 1973BKc (80596) 206

B3=7.47

C12H9N2O2F3 HL CAS 71132-72-4 (4953)

1-Phenyl-3-methyl-4-trifluoroacetylpyrazol-5-one;

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

Am+++ dis oth/un 25°C 0.10M U 1973BKc (80598) 207

B3=9.70

C12H11N2O2Cl HL CAS 31197-05-4 (4956)

1-Phenyl-3-methyl-4-chloroacetylpyrazol-5-one;

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

Am+++ dis oth/un 25°C 0.10M U B2=7.47 1973BKc (80857) 208

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

Am+++ dis oth/un 25°C 0.10M U 1973BKc (81040) 209

B3=12.23

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

Am+++ dis R4N.X 25°C 0.10M U K1=0.55 1991MMc (83265) 210

Am+++ oth R4N.X 25°C 0.10M C 1985SKd (83266) 211

Metal ion: Am++. K1=2.6-3.0. Method: from correlation of values for
Sr, Ba, Ra, Eu, Yb, Cf vs ionic radius. Medium: 0.10 M Me4NI.

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

Am+++ dis NaCl 25°C 1.00M U K1=6.05 1995MMc (83813) 212
Method: solvent extraction tracer technique

C14H9O2F3 HL (3429)

1,1,1-Trifluoro-1'-naphthoylacetone;

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

Am+++ dis oth/un 25°C 0.10M U 1969Ksa (86869) 213

B3=18.31

C14H16O3P2 HL CAS 1638-77-3 (5072)

(Methylenephosphinylmethyl)phenylphosphinic acid;

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

Am+++ ix R4N.X 25°C 0.20M U I K1=3.35 1972EZb (88025) 214

Medium: NH4ClO4. I=0: K1=4.15

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

Am+++ dis NaClO4 20°C 0.10M U K1=18.70 1990GBc (88578) 215

Am+++ cal NaClO4 25°C 0.50M U H 1989RSa (88579) 216

DH(K1)=10.8 kJ mol⁻¹

Am+++ ix oth/un 25°C 0.10M U TI K1=18.79 1971EZc (88580) 217

In I=0, K1=21.45

At 80 C : K1(0.05)=19.28, K1(0.06)=19.32, K1(0.07)=19.22, K1(0.17)=18.23

Am+++ oth oth/un 25°C 0.10M U K1=18.34 1971SHb (88581) 218

K(Am+HL)=9.20

Method: electrical migration or transference number.

Am+++ oth oth/un ? 0.0 U K1=21.5 1969MOc (88582) 219

From survey of literature data

Am+++ oth KCl 20°C 0.10M U K1=18.33 1967SMa (88583) 220

K(Am+HL)=2.6

Method: ionic migration. Medium: (KCl,HCl).

Am+++ ix R4N.X 25°C 0.10M U K1=18.79 1966BAc (88584) 221

Medium: NH4ClO4

Am+++ dis R4N.X 20°C 0.10M U K1=18.21 1966STa (88585) 222

Medium: NH4Cl

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
Am+++	cal	NaClO4	25°C	0.50M	U	H			1989RSa (89149)	223
DH(K1)=39.5 kJ mol-1										
Am+++	sp	oth/un	20°C	0.50M	U			K1=22.09	1972PRc (89150)	224
By pH method: K1=22.10										
Am+++	ix	R4N.X	25°C	0.10M	U			K1=23.32 K(Am+HL)=15.46	1971BRa (89151)	225
Medium: NH4ClO4										
Am+++	ix	R4N.X	20°C	1.0M	U			K1=21.3	1971MOc (89152)	226
Medium: NH4Cl										
Am+++	oth	oth/un	25°C	0.10M	U			K1=22.74 K(Am+HL)=14.30	1971SHb (89153)	227
Method: electrical migration or transference number.										
Am+++	sp	R4N.X	25°C	0.10M	U			K1=24.03	1969DBa (89154)	228
Medium: NH4ClO4										
Am+++	oth	oth/un	?	0.0	U			K1=25.5	1969MOc (89155)	229
Method: from survey of literature data										
Am+++	oth	KNO3	25°C	0.10M	U			K1=22.74	1968LFb (89156)	230
Method: electromigration										
Am+++	oth	oth/un		0.10M	U			K1=23.2	1966STb (89157)	231
Literature data from ORNL-3651										
Am+++	ix	R4N.X	25°C	0.10M	U			K1=22.92	1965BAC (89158)	232
Medium: NH4ClO4										

 C14H26N2O7 H2L (1567)
 1,4,10-Trioxa-7,13-diazacyclopentadecane-N,N'-diethanoic acid;

Metal	Mtd	Medium	Temp	Conc	Cal	Flags	Lg	K values	Reference	ExptNo
Am+++	dis	R4N.X	25°C	0.10M	U			K1=12.86	1990MMc (90174)	233
Medium: 0.1M Me4NCl										
Am+++	dis	oth/un	25°C	0.10M	U				1990MMe (90175)	234
K(Am+H4L=AmL+4H)=12.86										

 C16H30N2O8 H2L CAS 72912-01-7 (1568)
 1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-N,N'-diethanoic acid;


```

-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Am+++      dis R4N.X  25°C 0.10M U          K1=13.33      1990MMc (95025) 235
Medium: 0.1 M Me4NCl
-----
Am+++      dis oth/un 25°C 0.10M U          K(Am+H4L=AmL+4H)=13.33      1990MMe (95026) 236
Method: solvent extraction
*****
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
-----
Am+++      dis oth/un 25°C 0.10M U          B3=16.49      1973BKc (95873) 237
*****
C18H30N4O12          H6L      TTHA          CAS 869-52-3 (694)
Triethylenetetraaminehexaethanoic acid;((HOOCH2)2N.CH2.CH2.N(CH2.COOH).CH2)2
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Am+++      sp  R4N.X  25°C 0.10M U          K1=27.61      1969DBa (98011) 238
Medium: NH4ClO4.
*****
C39H75N2O2P2          L          CAS 474511-20-1 (8588)
2,6-Bis[[bis(2-ethylhexyl)phosphinyl]methyl]pyridine;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Am+++      dis non-aq 25°C 100% C T HM          2002NLa (106726) 239
Method: extraction 241Am from 0.5 M HNO3 into 0.1 M ligand in n-dodecane.
K(Am+3NO3+2L(org)=AmL2(NO3)3(org))=5.61. Data 15-45 C. DH and DS values.
*****
Polymer          Humic acid          (1524)
Humic acid;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Am+++      dis KCl      25°C 0.10M U          K(Am+HnL)=6.83 at pH 4.5
K(Am+2HnL)=10.58 at pH 4.5
*****
e-          HL      Electron          (442)
Electron;
-----
Metal      Mtd Medium Temp Conc Cal Flags Lg K values      Reference ExptNo
-----
Am++++      EMF oth/un 22°C 5.00M U          1970YGa (309) 241

```

Medium: 5-14.5 M H₃PO₄; K: Am(IV) + e=Am(III)

Method: Estimated data

From thermodynamic data and estimated

P04---	H3L	Phosphate	CAS 7664-38-2	(176)
--------	-----	-----------	---------------	-------

Phosphate;

Medium: acetonitrile, 0.4 M H₂PO₄ + 0.1 M ClO₄

REFERENCES

- 2002NLa K Nash,C Lavallette,M Borkowski; Inorg.Chem.,41,5849 (2002)
1999MBb R Moore,M Borkowski,G Choppin; J.Solution Chem., 28,521 (1999)
1998SNa H Suganuma,M Nakamura,I Satoh; J.Radioanal.Nucl.Chem.,237,21 (1998)
1997BPa A Bahta,G Parker,D Tuck; Pure & Appl.Chem.,69,1489 (1997)
1995MMc P Mohapatra,V Manchanda; Polyhedron,14,1993 (1995)
1991MMc P Mohapatra,V Manchanda; Radiochim.Acta,55,193 (1991)
1990GBc B Gorski,G Buklanov et al; Radiochim.Acta,51,59 (1990)
1990MMc V Manchanda,P Mohapatra; Polyhedron,9,2455 (1990)
1990MMe V Manchanda,P Mohapatra; Inorg.Chim.Acta,170,141 (1990)
1990PSc A Pershin,T Sapozhnikova; J.Radioanal.Nucl.Chem.,143,455 (1990)
1990RRc F Rosch,T Reimann,V Buklanov,M Milanov; J.Radioanal.Nucl.Chem.,140,159 (1990)
1989MKb P Mohapatra,P Khopkar; Polyhedron,8,2071 (1989)
1989PKa E Pazukhin,S Kochergin; Radiokhim.,31,72 (1989)
1989RSa E Rizkalla,J Sullivan,G Choppin; Inorg.Chem.,28,909 (1989)
1988SKe S Stadler,J I Kim; Radiochim.Acta,44/45,39 (1988)
1987PKa E Pazukhin,A Krivokhatski,S Kochergin; Radiokhim.,29,11 (1987)
1987PLc S Perevalov,I Lebedev,B Myasoedov; Radiokhim.,29,593 (1987)
1987RMa V Rao,G Mahajan,P Natarajan; Inorg.Chim.Acta,128,131 (1987)
1986RMc V Rao,G Mahajan,P Natarajan; Radiochim.Acta,40,145 (1986)
1985CMc G Choppin,A Muscatello; Inorg.Chim.Acta,109,67 (1985)
1985SKd Y Shiokawa,T Kido,S Suzuki; Radioanal.Nucl.Chem.Lett.,96,249 (1985)
1984BGB S Bouhlassa,R Guillaumont; J.Less Common Metals,99,157 (1984)
1984LLa R Lundqvist,J-F Lu et al; Acta Chem.Scand.,A38,501 (1984)
1984SCa A Saito,G Choppin; Radiochim.Acta,36,135 (1984)

1983CCb M Caceci,G Choppin; Radiochim.Acta,33,101 (1983)
 1983MCb C Musikas,C Cuillerdier,J Livet et al; Inorg.Chem.,22,2513 (1983)
 1983NCa G Nair,K Chander; J.Less Common Metals,92,29 (1983)
 1983RSc D Rai,R Srikert,D More,J Ryan; Radiochim.Acta,33,201 (1983)
 1982FKb T Fukusawa,I Kawasuji et al; Bull.Chem.Soc.Jpn.,55,726 (1982)
 1982LUB R Lundqvist; Acta Chem.Scand.,A36,741 (1982)
 1982NCa G Nair,K Chander,J Joshi; Radiochim.Acta,30,37 (1982)
 1981LMa I Lebedev,Y Mazur; Radiokhim.,23,359 (1981)
 1980ECa D Ensor,G Choppin; J.Inorg.Nucl.Chem.,42,1477 (1980)
 1980KMa P Khopkar,J Mathur; J.Inorg.Nucl.Chem.,42,109 (1980)
 1979LFa I Lebedev,V Frenkel et al; Radiokhim.,21,817 (1979)
 1979Lfb I Lebedev,V Frenkel et al; Radiokhim.,21,809 (1979)
 1979MPb A Moskvina,A Poznyakov; Zh.Neorg.Khim.,24,3076(1709) (1979)
 1979MPc A Moskvina,A Poznyakov; Zh.Neorg.Khim.,24,2449(1357) (1979)
 1979NCa G Nair,K Chander,J Joshi; India A.E.C.,BARC 1005,18 (1979)
 1978BCa E Bertha,G Choppin; J.Inorg.Nucl.Chem.,40,655 (1978)
 1978RBa P Rao,S Bagawde et al; J.Inorg.Nucl.Chem.,40,123 (1978)
 1975KPb G Korpusov,E Patrusheva et al; Radiokhim.,17,512 (1975)
 1975VAa V Vasilev,N Andreichuk et al; Radiokhim.,18,31 (1975)
 1974HHa S Hubert,M Hussonois,L Brillard et al; J.Inorg.Nucl.Chem.,36,2361 (1974)
 1974KCa W Kinard,G Choppin; J.Inorg.Nucl.Chem.,36,1131 (1974)
 1974KMa P Khopkar,J Mathur; J.Inorg.Nucl.Chem.,36,3819 (1974)
 1974NSa V Nikolaevski,V Shilov,N Krot; Radiokhim.,16,61 (1974)
 1974RKb E Rogosina,L Konkina,D Popov; Radiokhim.,16,383 (1974)
 1974SNa V Schilov,V Nikolsky,N Krot; Zh.Neorg.Khim.,19,469(254) (1974)
 1973BKc W Bacher,C Keller; J.Inorg.Nucl.Chem.,35,2945 (1973)
 1973CDd R Chiarizia,P Danesi,G Scibona et al; J.Inorg.Nucl.Chem.,35,3595 (1973)
 1973Eza A Elesin,A Zaitsev,G Sergeev et al; Radiokhim.,15,64 (1973)
 1973HHd M Hussonois,S Hubert,L Brillard et al; Radiochem.Radioanal.Lett.,15,47
 (1973)
 1973MSg T Makarova,A Stepanov,B Shestakov; Zh.Neorg.Khim.,18,1485(E:783) (1973)
 1972BCa P Baisden,G Choppin,W Kinard; J.Inorg.Nucl.Chem.,34,2029 (1972)
 1972Cdb G Choppin,G Degischer; J.Inorg.Nucl.Chem.,34,3473 (1972)
 1972CSb L Cilindro,E Stadlbauer,C Keller; J.Inorg.Nucl.Chem.,34,2577 (1972)
 1972ESb S Eberle,C Sabau; Radiochem.Radioanal.Lett.,11,77 (1972)
 1972Eza A Elesin,A Zaitsev; Radiokhim.,14,370 (1972)
 1972EZb A Elesin,A Zaitsev,V Karaseva et al; Radiokhim.,14,374(E:385) (1972)
 1972EZc A Elesin,A Zaitsev,S Kazakova,G Yakovlev; Radiokhim.,14,541 (1972)
 1972EZd A Elesin,A Zaitsev,N Ivanovich et al; Radiokhim.,14,546 (1972)
 1972HPb H Harmon,J Peterson et al; J.Inorg.Nucl.Chem.,34,1381 (1972)
 1972HPc H Harmon,J Peterson et al; J.Inorg.Nucl.Chem.,34,1711 (1972)
 1972Mcc W McDowell,C Coleman; J.Inorg.Nucl.Chem.,34,2837 (1972)
 1972PRc E Piskunov,A Rykov; Radiokhim.,14,2,260;265;330;332;641 (1972)
 1972SHb A Shalinets; Radiokhim.,14,1,33;2,269 (1972)
 1972SHc A Shalinets; Radiokhim.,14,2,275 (1972)
 1972SNa M Sakanoue,M Nakatani; Bull.Chem.Soc.Jpn.,45,3429 (1972)
 1972SSf A Shalinets,A Stepanov; Radiokhim.,14,280(E:290) (1972)
 1971ALe A Aziz,S Lyle; J.Inorg.Nucl.Chem.,33,3407 (1971)
 1971BRa E Brandau; Inorg.Nucl.Chem.Lett.,7,1177 (1971)
 1971DCa W D'Olieslager,G Choppin; J.Inorg.Nucl.Chem.,33,127 (1971)

- 1971Eva V Ermakov,V Vorobeva,A Zaitsev et al; Radiokhim.,13,5,692 (1971)
 1971EVb V Ermakov,V Vorobeva,A Zaitsev et al; Radiokhim.,13,6,840 (1971)
 1971EZb A Elesin,A Zaitsev; Radiokhim.,13,5,775 (1971)
 1971EZc A Elesin,A Zaitsev; Radiokhim.,13,6,902 (1971)
 1971EZd A Elesin,A Zaitsev,G Sergeev et al; Sci.Res.At.React.Inst.Rep.,SRARI,109
 (1971)
 1971GBa R Guillaumont,L Bourderie; Bull.Soc.Chim.Fr.,2806 (1971)
 1971KNb P Khopkar,P Narayanankutty; J.Inorg.Nucl.Chem.,33,495 (1971)
 1971LSc B Levakov,A Shalinets; Radiokhim.,13,2,295 (1971)
 1971MOc A Moskvin; Radiokhim.,13,4,575;582;641 (1971)
 1971MOd A Moskvin; Radiokhim.,13,668;674;682(E:688;694;700) (1971)
 197100a E Ohyoshi,A Ohyoshi; J.Inorg.Nucl.Chem.,33,4265 (1971)
 1971SHb A Shalinets; Radiokhim.,13,4,566 (1971)
 1971STe A Stepanov; Zh.Neorg.Khim.,16,11,2981 (1971)
 1971ZMa N Zaman,E Merciny,G Duyckaerts; Anal.Chim.Acta,56,271 (1971)
 1970ALc A Aziz,S Lyle; J.Inorg.Nucl.Chem.,32,2383 (1970)
 1970BCc J Brand,J Cobble; Inorg.Chem.,9,912 (1970)
 1970CSd G Choppin,J Schneider; J.Inorg.Nucl.Chem.,32,3283 (1970)
 1970HAc M Hara; Bull.Chem.Soc.Jpn.,43,89 (1970)
 1970LKa H Lahr,W Knoche; Radiochim.Acta,13,1 (1970)
 1970MBa Y Marcus,M Bomse; Isr.J.Chem.,8,901 (1970)
 1970YGa E Yanir,M Givon,Y Marcus; Inorg.Nucl.Chem.Lett.,6,415 (1970)
 1969ALd A Aziz,S Lyle; J.Inorg.Nucl.Chem.,31,3471 (1969)
 1969BMe Y Barbanel,N Mikhailova; Radiokhim.,11,595(E:576) (1969)
 1969DBa A Dellesite,R Baybarz; J.Inorg.Nucl.Chem.,31,2201 (1969)
 1969DHa B Desire,M Hussonois et al; Compt.Rend.,269C,448 (1969)
 1969EBa S Eberle,I Bayat; Inorg.Nucl.Chem.Lett.,5,229 (1969)
 1969JCa A Jones,G Choppin; Actinide Reviews,1,311 (1969)
 1969KSa C Keller,H Schreck; J.Inorg.Nucl.Chem.,31,1121 (1969)
 1969MKb B Marin,T Kikindai; Collec.Czech.Chem.Comm.,34,268 (1969)
 1969MOc A Moskvin; Radiokhim.,11,458(E:447) (1969)
 1969MSf Y Marcus,M Shiloh; Isr.J.Chem.,7,32 (1969)
 1969NBa L Nugent,R Baybarz,J Burnett; J.Phys.Chem.,73,1177 (1969)
 1969SGc M Shiloh,M Givon,Y Marcus; J.Inorg.Nucl.Chem.,31,1807 (1969)
 1969VOc V Voden,M Obukhova,M Pushlenkov; Radiokhim.,11,6,644 (1969)
 1969VSa V Vdovenko,O Stebunov; Radiokhim.,11,635;640(E:625;630) (1969)
 1968ALd A Aziz,S Lyle,S Naqvi; J.Inorg.Nucl.Chem.,30,1013 (1968)
 1968EAa S Eberle,S Ali; Z.Anorg.Allg.Chem.,361,1 (1968)
 1968Lfb I Lebedev,V Filimonov et al.; Radiokhim.,10,93 (1968)
 1968NAb G Nair; Radiochim.Acta,10,116 (1968)
 1968RSe N Rudenko,A Sevastyanov,N Lanskaya; Zh.Neorg.Khim.,13,6,1566;8,2106
 (1968)
 1968SFa H Sigel,C Flierl; Unpublished results (1968)
 1968TCa S Tanner,G Choppin; Inorg.Chem.,7,2046 (1968)
 1967BEa M Borisov,A Elesin,I Lebedev; Radiokhim.,8,2,166 (1967)
 1967CCd R Carvalho,G Choppin; J.Inorg.Nucl.Chem.,29,725;737 (1967)
 1967ELa A Elesin,I Lebedev,E Piskunov,G Yakovlev; Radiokhim.,9,161 (1967)
 1967ESa V Ermakov,I Stary; Radiokhim.,9,197 (1967)
 1967Lma I Lebedev,A Maksimova,A Stepanov et al; Radiokhim.,9,6,707 (1967)
 1967Sma A Stepanov,T Makarova; Radiokhim.,9,6,710 (1967)

1966BAc R Baybarz; J.Inorg.Nucl.Chem.,28,1055 (1966)
 1966BEc M Borisov,A Elesin,l Lebedev et al; Radiokhim.,8,42 (1966)
 1966GIa M Givon; Isr.J.Chem.,4,3p (1966)
 1966SMd M Shiloh,Y Marcus; J.Inorg.Nucl.Chem.,28,2725 (1966)
 1966STa I Stary; Radiokhim.,8,5,504;509 (1966)
 1966STb J Stary; Talanta,13,421 (1966)
 1966VKa V Vdovenko,V Kolokoltsov,O Stebunov; Radiokhim.,8,286 (1966)
 1965BAc R Baybarz; J.Inorg.Nucl.Chem.,27,1831 (1965)
 1965CKb G Choppin,J Ketels; J.Inorg.Nucl.Chem.,27,1335 (1965)
 1965CSb G Choppin,W Strazik; Inorg.Chem.,4,1250 (1965)
 1965MOb C Monk; J.Chem.Soc.,2456 (1965)
 1965SEa T Sekine; Acta Chem.Scand.,19,1469 (1965)
 1965SEb T Sekine; Acta Chem.Scand.,19,1519;1526 (1965)
 1965SEc T Sekine; Bull.Chem.Soc.Jpn.,38,1972 (1965)
 1965SMi A Stepanov,T Makarova; Radiokhim.,7,670 (1965)
 1964BPb B Bansal,S Patil,H Sharma; J.Inorg.Nucl.Chem.,26,993 (1964)
 1964NWA G Nair,G Welch; unpublished,quoted in ref.64B (1964)
 1964SEa T Sekine; J.Inorg.Nucl.Chem.,26,1463 (1964)
 1964SMA M Shiloh,Y Marcus; Israel A.E.C.(IA),924 (1964)
 1962GRA I Grenthe; Acta Chem.Scand.,16,1695 (1962)
 1962GRb I Grenthe; Acta Chem.Scand.,16,1965 (1962)
 1962GRc I Grenthe; Acta Chem.Scand.,16,2300 (1962)
 1962LYb I Lebedev,G Yakovlev; Radiokhim.,4,304 (1962)
 1962PMb D Peppard,G Mason,I Hucher; J.Inorg.Nucl.Chem.,24,881 (1962)
 1962ZSb V Zemlyanukhin,G Savoskina et al; Radiokhim.,4,570;655 (1962)
 1960LPa I Lebedev,S Pirozhkov,G Yakovlev; Radiokhim.,2,559 (1960)
 1960LPb I Lebedev,S Pirozhkov,G Yakovlev; Radiokhim.,2,549 (1960)
 1957FSa J Foreman,T Smith; J.Chem.Soc.,1752 (1957)
 1957GCa S Gunn,B Cunningham; J.Am.Chem.Soc.,79,1563 (1957)
 1956OCa B Odenheimer,G Choppin; J.Chem.Educ.,36,462 (1956)
 1956WWa M Ward,G Welch; J.Inorg.Nucl.Chem.,2,395 (1956)
 1954FEa D Feay; Thesis,Berkeley,UCRL-2547 (1954)
 1950PAa R Penneman,L Asprey; Am.Chem.Soc.,Abstract 118th Meeting (1950)

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